


**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/96/11

7 May 2025

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-sixth Meeting
Montreal, 26-30 May 2025
Item 7(a) of the provisional agenda¹

**STATUS REPORTS AND REPORTS ON PROJECTS WITH SPECIFIC REPORTING
REQUIREMENTS WITH NO OUTSTANDING ISSUES**

1. The present document consists of two sections, namely (i) projects with implementation delays and projects for which special status reports were requested, and (ii) projects with specific reporting requirements with no outstanding issues. The reporting on these projects, after the Secretariat's review, have no outstanding issues and therefore do not require the Executive Committee to consider them individually.

I. Projects with implementation delays and for which special status reports were requested

2. At the 95th meeting, the Executive Committee noted that the bilateral and implementing agencies would report, at the 96th meeting, on 114 projects with implementation delays and 11 ongoing projects or tranches of multi-year agreements (MYAs) recommended for additional status reports (decision 95/12(a)(iii)). Accordingly, relevant bilateral and implementing agencies submitted the requested reports to the 96th meeting. In reviewing the reports, the Secretariat held discussions with bilateral and implementing agencies and several issues have been satisfactorily addressed. Table 1 provides a summary of projects with implementation delays and projects recommended for additional status reports including their levels of progress, recommendations by the Secretariat and references to annexes to the present document.

Table 1. Summary of projects with implementation delays and additional status reports

Level of progress	Number of projects	Decision	Recommendation	Annex
Implementation delays				
Progress (Individual projects and MYAs)	106	32/4	To be removed from future reporting	n/a

¹ UNEP/OzL.Pro/ExCom/96/1

Level of progress	Number of projects	Decision	Recommendation	Annex
Some progress (Individual projects and MYAs)	4	32/4	To continue monitoring until their final completion	Annex I
No progress for the first time (MYAs)	4	84/45	To continue monitoring until their final completion	Annex II
Total	114			
Status reports				
No outstanding issues	7	51/13	To be removed from future reporting	n/a
Issues still need to be resolved	4	51/13	To request submission of additional status reports	Annex III
Total	11			

Recommendation

3. The Executive Committee may wish:

(a) To note:

- (i) The reports on implementation delays and the status reports submitted by bilateral and implementing agencies, contained in document UNEP/OzL.Pro/ExCom/96/11;
- (ii) That bilateral and implementing agencies would report to the Executive Committee at the 97th meeting on eight projects with implementation delays, as indicated in annexes I and II to the present document, and on four projects recommended for additional status reports, as indicated in annex III to the present document, as part of the 2024 annual and financial progress report of the bilateral and implementing agencies; and

(b) To approve the recommendations on ongoing projects with specific issues listed in the last column of the table in annex III to the present document.

II. Projects with specific reporting requirements with no outstanding issues

An overview

4. Table 2 lists the reports on projects with specific reporting requirements with no outstanding issues.

Table 2. Reports on projects with specific reporting requirements with no outstanding issues

Country	Project title	Paragraphs
A. Reports related to HCFC phase-out management plans (HPMPs)		
Argentina	HCFC phase-out management plan (stage II – availability of low global warming potential alternatives to HCFC-141b in the foam sector and transitional use of high-global-warming potential alternatives)	5-18
Brazil	HCFC phase-out management plan (stage II – progress report on the implementation of the work programmes associated with the fifth and final tranche)	19-32
India	HCFC phase-out management plan (stage II – progress report on the implementation of the work programme associated with the fourth and final tranche)	33-42
Indonesia	HCFC phase-out management plan (stage II – progress report on the implementation of the work programme associated with the fourth and final tranche)	43-52

Country	Project title	Paragraphs
Iraq	HCFC phase-out management plan (stage II – completion of stage I, national phase out plan, and project to replace CFC-12 with isobutane and CFC-11 with cyclopentane in domestic refrigeration manufacturing at Light Industries)	53-59
Kenya	HCFC phase-out management plan (stage II – change of technology for a supermarket (Woolmatt))	60-66
Mali	HCFC phase-out management plan (stage I, fifth tranche – implementation of the work programme associated with the final tranche)	67-72
Mexico	HCFC phase-out management plan (stage II – progress report on the implementation of the work programmes associated with the fifth and final tranche)	73-78
Pakistan	HCFC phase-out management plan (stage II – final progress report on the implementation of the third and fourth tranches; and stage III – progress report on the Cool Point conversion project)	79-91
B. Reports on additional activities to maintain energy efficiency in the refrigeration servicing sector (decision 89/6)		
Kyrgyzstan	Additional activities to maintain energy efficiency for the servicing sector under decision 89/6(b) (progress report and request for extension of the completion date)	92-100
Maldives	Additional activities to maintain energy efficiency in the refrigeration servicing sector under decision 89/6(b) (request for extension of project completion date)	101-107

A. Reports related to HPMPs

Argentina: HCFC phase-out management plan (stage II – availability of low-global-warming-potential alternatives to HCFC-141b in the foam sector and transitional use of high-global-warming-potential alternatives) (UNIDO and the Government of Italy)

Background

5. At its 92nd meeting, in approving the third tranche of stage II of the HCFC phase-out management plan (HPMP) for Argentina (decision 92/31), the Executive Committee noted *inter alia*:

- (a) The challenges presented by the lack of supply of low-global-warming-potential (GWP) alternatives to HCFC-141b in the foam sector, which had delayed the implementation of stage II activities in the polyurethane (PU) foam sector that would have allowed the Government of Argentina to phase out 85.92 ODP tonnes of HCFCs; and
- (b) That, in the event that alternatives were not available on the local market, high-GWP alternatives could be used, on a transitional basis only, and that the Government of Argentina would report to each Executive Committee meeting on the progress made towards ensuring that the selected technologies, including the associated components, were available on a commercial basis in the country, on the understanding that incremental operating costs (IOCs) would not be funded until the transition to the agreed alternatives was complete.

6. UNIDO has accordingly reported on the matter at each Executive Committee meeting,² with the last report at the 95th meeting outlining that one of the suppliers informed that it would be able to provide its HFO to the local market by 2026 while the other two suppliers confirmed that they had the capacity to supply HFO to Argentina immediately. Suppliers mentioned the possibility of reaching commercial

² Paragraphs 2-9 of document UNEP/OzL.Pro/ExCom/93/20 and paragraphs 5-14 of document UNEP/OzL.Pro/ExCom/94/9

agreements with prices significantly lower than those previously reported. These prices, while still challenging for the local systems houses, were expected to make HFOs more accessible for the local market. Some PU foam enterprises were still using HFCs on a transitional basis, but the Government reiterated that this was not a long-term solution, that suppliers were a key part in the adoption of the technology and that the country required support from HFO-producing countries to ensure a reliable local supply.

7. At the 95th meeting, the Executive Committee requested the Government of Argentina and UNIDO, in line with decision 92/31(c)(ii), to provide an update at the 96th meeting on the local market availability of low-GWP alternatives to HCFC-141b in the foam sector and on the transitional use of high-GWP alternatives (decision 95/19(b)).

Progress report

8. On behalf of the Government of Argentina, UNIDO submitted a report providing an update on the status of supply, price, delivery times of HFOs for the PU foam sector upon additional consultations held by the Government of Argentina with the key suppliers and the local systems houses.

9. Regarding supply, while one of the suppliers continues to report inability to supply the Argentinian market before 2026, the other two reconfirmed their capacity to supply their HFOs immediately and the possibility to reduce delivery times for future purchases from the initial 90 to 120 days estimated.

10. Concerning price, since the 95th meeting, system houses have confirmed they have found an affordable price for the transition and nearly all of them have placed their first purchase orders to begin using HFOs. The first HFO imports will be delivered in one-tonne containers that must be returned for reuse. However, one of the suppliers informed that it cannot guarantee the quantities demanded by the system houses due to a shortage of containers for shipping, which remains to be solved.

11. Since the initial HFO shipments have not yet arrived in the country, HFO is still not being consumed or used in Argentina as a substitute for HCFC-141b. UNIDO confirmed that some enterprises are still using HFCs on a transitional basis as an alternative of HCFC-141b but the Government reiterated that this is not a long-term solution and that the country still needs the support of the HFO producing countries to ensure the local supply of HFOs.

12. Finally, UNIDO also reported that no licenses were granted for importing HCFC-141b in 2025. As a result, until the first HFO containers are delivered, system houses are managing with existing stocks of HCFC-141b or HFCs.

Secretariat's comments

13. The Secretariat notes the report providing an update on the status of supply, price, and delivery times of HFOs for the PU foam sector, the confirmation that some enterprises are still using HFCs on a temporary basis as an alternative to HCFC-141b, and the reassurance of the local systems houses' willingness to adopt HFOs as an alternative once the price and supply barriers are overcome.

14. On possible issues emerging from the use of one-tonne containers for HFO imports, UNIDO explained that using these smaller tanks leads to additional export costs, which are already included when using ISO tanks in containers. UNIDO is working with the system houses on possible ways to reduce or avoid these extra costs. It is expected that all the ongoing purchases will be delivered between May and June.

15. The Secretariat noted that at the 92nd meeting the Executive Committee approved an extension of stage II to December 2024 and agreed to review the situation at the time of submission of the next tranche. As the next tranche has not been submitted yet due to the ongoing issue with PU foam alternatives, this

extension has not been reconsidered. In consultation with the Government, UNIDO indicated that given the ongoing purchase orders still to be delivered, the Government will be in a better position to establish a revised date of completion at the 97th meeting along with the second tranche request.

16. The Secretariat also notes with appreciation that after the 95th meeting, the Government continued its discussions with the HFO suppliers and systems houses, and that further progress was achieved, with first purchases expected to be delivered in the next two months. Noting that the issue of availability of alternatives in PU foam manufacturing will be discussed under agenda item 11 of the 96th meeting, the Secretariat has included the updated information related to the PU foam project in Argentina in document UNEP/OzL.Pro/ExCom/96/60.

17. Despite the additional significant progress made, the issues of availability and pricing for low-GWP alternatives are still not fully resolved, and high-GWP alternatives are still being used on a transitional basis. Therefore, in line with decision 92/31(c)(ii), the Secretariat recommends that the Government of Argentina continue reporting to the Executive Committee on the matter.

Recommendation

18. The Executive Committee may wish:

- (a) To note the report on the update on the status of availability of low-global-warming-potential (GWP) alternatives to HCFC-141b in the foam sector and on the transitional use of high-GWP alternatives in the context of stage II of the HCFC phase-out management plan for Argentina, provided by UNIDO and contained in document UNEP/OzL.Pro/ExCom/96/11; and
- (b) To request the Government of Argentina and UNIDO, in line with decision 92/31(c)(ii), to provide an update at the 97th meeting on the local market availability of low-GWP alternatives to HCFC-141b in the foam sector and on the transitional use of high-GWP alternatives.

Brazil: HCFC phase-out management plan (stage II – progress report on the implementation of the work programmes associated with the sixth and final tranche) (UNDP, UNIDO and the Government of Germany)

Background

19. At its 94th meeting, in approving the sixth and final tranche of stage II of the HCFC phase-out management plan (HPMP) for Brazil, the Executive Committee requested the Government of Brazil, UNDP, UNIDO and the Government of Germany to submit, to the 96th meeting, a progress report on the implementation of work programmes associated with that tranche, including a complete list of downstream foam user (DSU) enterprises assisted by the Multilateral Fund under stage II, specifying their subsectors, HCFC-141b consumption phased out, and new technologies adopted (decision 94/33(b)).

20. The Government of Brazil reported a consumption of 491.60 ODP tonnes of HCFCs in 2023, which is 63 per cent below the country's HCFC baseline for compliance.³ The country programme (CP) implementation report for 2024 will be available in May 2025, with a preliminary consumption estimate amounting to less than 484.46 ODP tonnes. The 2020–2023 HCFC consumption is shown in table 3.

³ See paragraph 3 of document UNEP/OzL.Pro/ExCom/94/25 for the explanation of HCFC consumption trend

Table 3. HCFC consumption in Brazil (2020–2023 Article 7 data)

HCFC	2020	2021	2022	2023	Baseline
Metric tonnes (mt)					
HCFC-22	7,652.80	8,352.53	9,764.37	8,092.24	14,401.0
HCFC-123	14.89	14.89	14.89	13.44	14.9
HCFC-124	24.73	19.85	17.70	11.71	351.3
HCFC-141b	282.43	280.02	421.46	418.15	4,741.3
HCFC-142b	0	0	0	0	86.3
Total (mt)	7,974.85	8,667.29	10,218.42	8,535.54	19,594.8
ODP tonnes					
HCFC-22	420.90	459.39	537.04	445.07	792.0
HCFC-123	0.30	0.30	0.30	0.27	0.30
HCFC-124	0.54	0.44	0.39	0.26	7.7
HCFC-141b	31.07	30.80	46.36	46.00	521.7
HCFC-142b	0	0	0	0	5.6
Total (ODP tonnes)	452.81	490.93	584.09	491.60	1,327.3
Maximum allowable consumption	862.74	730.02	730.02	730.02	n/a

21. The Government of Brazil 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.

Progress report

22. On behalf of the Government of Brazil, UNDP submitted a report on progress achieved in the implementation of remaining activities of stage II, as summarized below.

Regulatory framework

23. International standard ISO-22043-2020 for ice cream freezers (Classification, requirements and test conditions) was translated into Portuguese and is currently in public consultation. Ongoing work on other standards includes translation of ISO-23953-1 for refrigerated display cabinets (Part 1: Vocabulary); a new revision of ISO 5149:2014 for refrigeration systems and heat pumps (Parts 1 to 4: Safety and environmental requirements); and revision of ABNT NBR 16666 on refrigerants (Designation and safety classification).

Manufacturing sector

Polyurethane foam manufacturing (UNDP)

24. Total conversion of the polyurethane (PU) foam manufacturing sector was finalized by fully replacing HCFC-141b used as a blowing agent with alternatives with zero ozone-depleting potential (ODP) and low global-warming potential (GWP). Conversions at 20 individual enterprises⁴ resulted in the elimination of 58.78 ODP tonnes of HCFC-141b, and a group project to convert 200 DSUs with the assistance of nine local systems houses phased out 77.6 ODP tonnes of HCFC-141b. Systems houses also supplied alternative technologies to enterprises that did not participate in the HPMP, with an estimated additional 33.5 ODP tonnes of HCFC-141b phased out without Multilateral Fund's support.

⁴ Ananda Metais, Ártico, Bulltrade, Cold Air, Eletrofrio, Furgão Ibioporã, Gelopar, IBF, Inylbra, Isar, Isosister, Klimaquip, Niju, PMI, Refrimate, Rocktec, São Rafael, Tecpur, Termotelha and Therm Jet. The projects at Basf, Comfibras, Dow, Polysystem and U-Tech were canceled.

Commercial refrigeration manufacturing (UNIDO)

25. Twelve out of the 14 small and medium-sized enterprises manufacturing commercial refrigeration equipment with low-GWP refrigerants that have participated in stage II have completed conversions⁵ (six of them over the past year), selecting R-290 as an alternative in most cases, with only three enterprises⁶ opting for HFO. The last two enterprises are currently in the process of finalizing documentation for final payment. In June 2024, a workshop was held to present the beneficiaries' experiences with the project, including safety considerations.

Refrigeration servicing sector (Government of Germany)

26. The following activities have been implemented:

- (a) *Training and capacity-building:* Two additional train-the-trainer workshops for safe practices in commercial refrigeration were held; the training of 700 technicians on best practices for split and window-type air-conditioning (AC) systems and 300 technicians on best practices in commercial refrigeration has started and is expected to be completed in December 2025; the installation of two mini-supermarkets in training institutions is ongoing, with associated training scheduled to start in the second quarter of 2025; R-290-based AC units for training were imported and delivered to five training institutions; and safety and performance tests needed to certify AC models in Brazil were contracted and carried out; and
- (b) *Outreach and awareness campaign:* Training material and presentations on the safe use of carbon dioxide and propane were developed and are currently being translated; project website has been updated with 10 interviews for the "Cool Talks HPMP" series; project Instagram account was created; and videos were produced to promote technicians' training activities.

27. Of the total US \$26,019,401 approved for stage II of the HPMP for Brazil, US \$23,443,428 has been disbursed. Out of the remaining balance of US \$2,575,973, it is preliminarily estimated that US \$1,695,731 will be returned by UNDP and US \$311,203 will be returned by UNIDO upon financial completion of the project, and the remaining balance will be disbursed in 2025–2026.

Secretariat's comments

28. At the Secretariat's request, UNDP confirmed that stage II of the HPMP would be completed by 31 December 2025, in line with decision 91/26(b)(ii).

29. UNDP also confirmed that the PU foam sector plan was finalized on 31 December 2024 and provided the final list of downstream PU foam enterprises assisted under stage II, in line with decision 94/33(b)(ii). Out of the 445 DSUs initially planned for assistance, 200 received assistance under the project; funds associated with the remaining enterprises have already been deducted from the approved tranches, returned to the Fund in previous meetings, or will be returned upon financial completion of the plan. The final cost of the PU foam sector plan in Brazil was US \$10,809,269. Regarding the availability of low-GWP alternatives, UNDP informed the Secretariat that HFO was currently available, with prices ranging from US \$14 to US \$18, depending on the contract between the consumer and the supplier.

⁵ Chopeiras Ccitti, Fricolor, Fricon, JJ Instalações Comerciais, Kitfrigor, Klima Refrigeração Ltda, Mecolor, Peracchi, Refriac, Refrimate, Sulfrio and Zero Grau completed conversions; Indústrias Tosi and Ingecold are in the final stages of their projects.

⁶ Indústrias Tosi, Kitfrigor and Mecolor

30. In line with decision 94/33(a)(ii), UNDP continued assisting the DSUs associated with the systems house U-Tech, which had withdrawn from stage II of the HPMP, in the adoption of low-GWP technologies to replace HCFC-22 in the froth application.⁷ UNDP reported that despite efforts, it was not possible to provide support to U-Tech's DSUs with resources from the Multilateral Fund. Therefore, the funds earmarked for the incremental operating costs for these DSUs were not transferred and will be returned to the Multilateral Fund at the end of the project, along with the remaining incremental capital cost funding.

31. The Secretariat notes that, with the completion of the ongoing activities in the servicing sector, Brazil will have completed all activities planned under the last tranche of stage II of the HPMP.

Recommendation

32. The Executive Committee may wish to note the report on the update on the progress made on the implementation of the work programmes associated with the sixth and final tranche of stage II of the HCFC phase-out management plan for Brazil, provided by UNDP and contained in document UNEP/OzL.Pro/ExCom/96/11.

India: HCFC phase-out management plan (stage II – progress report on the implementation of the work programme associated with the fourth and final tranche) (UNDP, UNEP and the Government of Germany)

Background

33. At its 91st meeting, in approving the fourth and final tranche of stage II of the HCFC phase-out management plan (HPMP) for India, the Executive Committee requested the Government of India, UNDP, UNEP and the Government of Germany to submit, at the first meeting of 2025, a progress report on the implementation of the work programme associated with the final tranche of the HPMP.⁸

34. The Government of India reported a consumption of 322.44 ODP tonnes of HCFCs in 2023, which is 80.0 per cent below the HCFC baseline for compliance.⁹ Preliminary consumption data for 2024 is being compiled and is estimated at 464.33 ODP tonnes. The 2019-2024 HCFC consumption is shown in table 4.

Table 4. HCFC consumption in India (2019-2023 Article 7 data)

HCFC	2019	2020	2021	2022	2023	2024*	Baseline
Metric tonnes (mt)							
HCFC-22	9,988.45	5,404.19	4,278.99	6,220.55	5,819.05		10,944.7
HCFC-123	77.48	12.99	47.19	173.38	84.38		176.5
HCFC-141b	3,494.18	0.00	0.00	0.00	0.00		7,868.4
HCFC-225**	55.50	0.00	-254.49	-44.26	10.09		-
Total (mt)	13,615.61	5,417.18	4,071.69	6,349.67	5,913.51		21,504.4***
ODP tonnes							
HCFC-22	549.36	297.23	235.34	342.13	320.05		602.0
HCFC-123	1.55	0.26	0.94	3.47	1.69		3.5
HCFC-141b	384.36	0.00	0.00	0.00	0.00		865.5
HCFC-225**	3.88	0.00	-17.81	-3.10	0.71		-
Total (ODP tonnes)	939.16	297.49	218.47	342.50	322.44	464.33	1,608.2***

⁷ U-Tech completed the conversion of its manufacturing plant from HCFC-141b to methyl formate in most applications but adopted HFC-134a to replace HCFC-22 as a gaseous blowing agent in the froth application, which cannot be produced with the usual low-GWP alternatives to HCFC-141b.

⁸ Decision 91/53(f)

⁹ See paragraphs 3 and 4 of document UNEP/OzL.Pro/ExCom/95/58 for the explanation of HCFC consumption trend.

HCFC	2019	2020	2021	2022	2023	2024*	Baseline
Maximum allowable consumption	1,103.85	832.32	799.76	698.82	643.28	643.28	n/a

* Preliminary estimate.

** India produced HCFC-225 in 2019, 2022 and 2023 for feedstock uses. Exports of HCFC-225 in 2021 and 2022 were for feedstock and were produced partly in 2022 and in prior years.

*** Total baseline includes 13.5 ODP tonnes of HCFC-124 and 123.7 ODP tonnes of HCFC-142b, of which there has been no consumption since 2012 and 2017.

35. The Government of India reported HCFC sector consumption data under the 2023 country programme (CP) implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

Progress report

36. On behalf of the Government of India, UNDP submitted a report providing an update on the progress achieved on the remaining activities in the refrigeration servicing sector, including:

- (a) *Polyurethane (PU) foam manufacturing (UNDP)*: The conversion of the remaining PU foam enterprises to low-GWP alternatives was completed, with physical site verification confirming a total 158 enterprises having phased out 2,624.70 mt of HCFC-141b under stage II in line with the ban on its import in effect as of January 2020; UNDP will return the balance of US \$1,302,782 at the 97th meeting, corresponding to funds that were not claimed or not fully released to 13 converted enterprises;
- (b) *Air-conditioning (AC) manufacturing (UNDP)*: All six enterprises participating under stage II have completed their conversions, have phased out a total 1,197.63 mt (65.87 ODP tonnes) of HCFC-22 and are supplying HFC-32-based AC units to the local market. The Government banned the import and manufacture of HCFC-based refrigeration and air-conditioning (RAC) equipment as of 1 January 2025;
- (c) *RAC servicing sector (Germany)*: 4,348 RAC technicians were trained under the fourth tranche, for a total 17,000 trained under stage II; an additional six workshops were held for 95 technicians at industrial training institutes in good servicing practices and in the installation of room AC units, including those with flammable refrigerants; and an existing training facility was strengthened with facility and equipment upgrades, including RAC training units and related tools, 25 workstations to train in flammable refrigerants, and cylinder storage and safety guidelines;
- (d) *Enabling activities in the servicing sector (UNEP)*: Two workshops were held to train 99 customs officers in the enforcement of the Montreal Protocol and HCFC control; a border dialogue with neighbouring countries was conducted to discuss ODS trade; three additional studies for the building sector and a guideline for the cold chain sector were completed;¹⁰ all studies were disseminated to the public and the findings were discussed with a variety of stakeholders to promote public procurement policies for non-HCFC alternatives and to promote HCFC phase-out in the building and cold chain sectors; a variety of awareness and capacity-building activities were conducted including dissemination of knowledge products; and the Ozone Cell website continued to be updated regularly with material from the HPMP; and

¹⁰ Including a study on the reduction of greenhouse gas emissions in India due to the phase-out of ODS under the Montreal Protocol, a study on sustainable technologies for new and retrofits of existing buildings and space cooling, a climate-responsive evaluation of local cooling and heating practices in rural India, and a guidebook on sustainable technologies for new and retrofitted cooling equipment and storage infrastructures in the cold chain sector.

- (e) *Project implementation and monitoring unit (PMU) (UNDP)*: The PMU continued third-party verification of enterprise eligibility and implementation milestones through on-site visits; managed the implementation of investment projects; organized missions, meetings and technical visits to enterprises; and prepared progress and financial reports for submission to the Project Steering Committee, the Ozone Cell and UNDP; the PMU will implement all remaining project closure activities by December 2025.

37. As of March 2025, of the US \$37,847,454 approved for stage II (US \$31,847,454 for UNDP, US \$900,000 for UNEP, and US \$5,100,000 for the Government of Germany), US \$34,934,514 had been disbursed, \$316,837 had already been returned to the Fund, and US \$1,293,321 was finalizing payment for project activities (expected by September 2025). The balance of US \$1,302,782 will be returned to the 97th meeting.

Secretariat's comments

38. UNDP confirmed that stage II of the HPMP was operationally completed by 31 December 2024, as established in paragraph 14 of the Agreement and indicated at the 95th meeting of the Executive Committee, except for four training workshops that had been delayed and took place by March 2025.

39. Upon review of the final list of assisted PU foam enterprises included in the report, the Secretariat notes that a total of 158 enterprises phased out 2,624.70 mt (288.72 ODP tonnes) of HCFC-141b at a final cost of US \$18,571,277 and cost-effectiveness of US \$7.08/kg, which is below the maximum level of US \$7.58/kg agreed for the project in decision 77/43(d)(ii).

40. Following the conversion of room AC manufacturing enterprises to HFC-32, UNDP reported that the participating enterprises have not reported challenges in selling HFC-32-based AC units in the local market.

41. Financial disbursement for the stage is at 92 per cent, and final project payments are expected to be finalized by September 2025 and the project financially completed by December 2025. The country confirmed that consumption for 2024 and the combined import/production/export quota for 2025 are in compliance with the maximum allowable consumption in the Agreements with the Executive Committee for stages II and III of the HPMP. Overall, both investment and non-investment activities under stage II have been successfully implemented, creating a strong foundation for continuation of activities under stage III.

Recommendation

42. The Executive Committee may wish to note the progress report on the implementation of the work programme associated with the fourth and final tranche of stage II of the HCFC phase-out management plan for India, provided by UNDP and contained in document UNEP/OzL.Pro/ExCom/96/11.

Indonesia: HCFC phase-out management plan (stage II – progress report on the implementation of the work programme associated with the fourth and final tranche) (UNDP and the World Bank)

Background

43. At its 92nd meeting, in approving the fourth and final tranche of stage II of the HCFC phase-out management plan (HPMP) for Indonesia, the Executive Committee requested the Government of Indonesia, UNDP and the World Bank to submit a progress report on the implementation of the work programme associated with the final tranche of stage II of the HPMP to the first meeting of the Executive Committee

in 2025 and the project completion report to the second meeting of the Executive Committee in 2025 (decision 92/24(a)).

44. The Government of Indonesia reported under the country programme (CP) implementation report a consumption of 130.95 ODP tonnes of HCFCs in 2024, which is 68 per cent below the HCFC baseline for compliance. The Article 7 data for 2024 has not been reported yet. The 2020-2024 HCFC consumption is shown in table 5.

Table 5. HCFC consumption in Indonesia (2020-2024 Article 7 data)

HCFC	2020	2021	2022	2023	2024*	Baseline
Metric tonnes (mt)						
HCFC-22	2,952.60	2,922.30	2,483.68	2,707.34	2,358.05	4,861.9
HCFC-123	90.98	34.52	60.98	26.00	62.99	192.2
HCFC-124	0.00	0.00	0.00	0.00	0.00	0.1
HCFC-141b	220.00	100.00	0.00	0.00	0.00	1,205.9
HCFC-142b	0.00	6.41	0.00	0.00	0.00	0.0
HCFC-225	0.00	0.00	0.00	0.00	0.00	0.3
Total (mt)	3,263.58	3,063.23	2,544.66	2,733.34	2,421.04	6,260.4
ODP tonnes						
HCFC-22	162.39	160.73	136.60	148.90	129.69	267.4
HCFC-123	1.82	0.69	1.22	0.52	1.26	3.9
HCFC-124	0.00	0.00	0.00	0.00	0.00	0.0
HCFC-141b	24.20	11.00	0.00	0.00	0.00	132.6
HCFC-142b	0.00	0.42	0.00	0.00	0.00	0.0
HCFC-225	0.00	0.00	0.00	0.00	0.00	0.0
Total (ODP tonnes)	188.41	172.83	137.82	149.42	130.95	403.9
Maximum allowable consumption	252.44	252.44	252.44	181.76	181.76	n/a

* CP data

45. HCFC-22 has been consumed exclusively for servicing following the 2015 ban on its use in refrigeration and air-conditioning (RAC) manufacturing and assembly. Consumption of HCFC-141b was phased out following the ban on its import as of January 2022. HCFC-123 is consumed to install and service chillers and is being addressed in stage III of the HPMP. Overall consumption has been declining due to the implementation of activities under the HPMP, such as improved servicing practices, the use of alternative refrigerants, and import restrictions.

46. The Government of Indonesia 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.

Progress report

47. On behalf of the Government of Indonesia, UNDP submitted, in line with decision 92/24(a), a progress report on the implementation of the work programme associated with the fourth and final tranche of stage II.¹¹ The report provides an update on the progress achieved on the remaining activities in the refrigeration servicing sector, including:

- Training of 249 customs officers on the monitoring and prevention of illegal trade of HCFCs and on the identification and handling of ODS, for a total of 915 trained under stage II;
- Training of 20 trainers on the curriculum-based competency training on good practices in RAC, including delivery of training materials, for a total of 174 trainers trained under

¹¹ As per the letter of 17 March 2025 from the Ministry of Environment of Indonesia to UNDP.

stage II; 74 of these trainers have been certified to act as assessors in the competency-based certification of technicians for domestic RAC equipment and are now fixed teaching staff at the training centres;

- (c) Training of 1,324 technicians on good servicing practices and the safe handling of alternative refrigerants, for a total of 2,632 trained under stage II; certification of 600 technicians, for a total of 1,274 certified under stage II; and production and dissemination of a video to the RAC association promoting good servicing practices for residential technicians;
- (d) The 151 toolkits procured under the third tranche were delivered to service shops and technicians; and four reclamation centres were established through the provision of equipment (reclamation unit, vacuum pumps, refrigerant cylinders, weight scale, portable identifier), with delivery of six identifiers delayed until October 2025;
- (e) Cooperation with five technical units of the Ministry of Environment to conduct a public awareness campaign reaching 1,157 people (a total 4,135 under stage II) on the HCFC phase-out, HCFC alternatives, and the use of certified technicians; and
- (f) Project monitoring in the amount of US \$44,500 for staff and consultants (US \$25,767), travel (US \$5,008), workshops and meetings (US \$3,813), monitoring (US \$8,546), and miscellaneous costs (US \$1,366).

48. As of March 2025, of the US \$8,302,163 approved for stage II (US \$4,047,000 for UNDP and US \$4,255,163 for the World Bank), US \$8,212,464 had been disbursed. The estimated balance of US \$89,699 (US \$75,070 for UNDP and US \$14,629 for the World Bank) will be returned to the Fund after payments are finalized and no later than 31 December 2025.

Secretariat's comments

49. In polyurethane foam manufacturing, assistance was provided to four large (consumption above 20 mt) and eight medium-sized (consumption between 5 and 20 mt) enterprises, two systems houses, and 201 small enterprises under stage II, and a total of 455.62 mt of HCFC-141b was phased out. No further small enterprises were reported as having converted during the extension of the voucher system. The progress report provided confirmation of the baseline equipment destroyed/rendered not usable at the 12 large and medium-sized enterprises. The ban on the import of HCFC-141b was enacted as of January 2022, and consumption of the substance has not been reported since that date.

50. Establishment of the five reclamation centres under stage II had been delayed due to supply chain disruptions and challenges associated with the COVID-19 pandemic, and as a result, UNDP and the Government had implemented a risk mitigation strategy to ensure continued project implementation. The five centres have now been established other than the remaining six identifiers, which are expected to be delivered in October 2025 and locally distributed as part of stage III implementation. The Secretariat sought further information on the status of operations and quantity of controlled substances reclaimed at the centres. UNDP clarified that one of the reclamation centres, established in 2021, while operational, is so far only being used internally and to pilot public reclamation activities and is not yet providing commercial-scale reclamation. Activities are expected to be initiated following the development of the required residual waste permits and standard operating procedures for commercial reclamation activities, expected under stage III. The remaining four centres have not yet begun reclamation activities due to the implementation delays. UNDP will include an update on the status of the five reclamation centres, including an update on the delivery and distribution of the six refrigerant identifiers, the status of reclamation operations, and the quantity of controlled substances reclaimed, as part of the progress report on the implementation of the first tranche of stage III of the HPMP, expected to be submitted to the 97th meeting.

51. UNDP confirmed that stage II of the HPMP was operationally completed by 31 December 2024, as established in paragraph 14 of the Agreement, and that any balances would be returned to the Fund by 31 December 2025.

Recommendation

52. The Executive Committee may wish to note the progress report on the implementation of the work programme associated with the fourth and final tranche of stage II of the HCFC phaseout management plan for Indonesia, provided by UNDP and contained in document UNEP/OzL.Pro/ExCom/96/11.

Iraq: HCFC phase-out management plan (stage II – completion of stage I, national phase out plan, and project to replace CFC-12 with isobutane and CFC-11 with cyclopentane in domestic refrigeration manufacturing at Light Industries) (UNEP and UNIDO)

Background

53. At its 87th meeting, the Executive Committee approved stage II of the HCFC phase-out management plan (HPMP) for Iraq, noting that its second tranche could only be considered upon completion of stage I of the HPMP (IRQ/PHA/74/INV/23), the national phase-out plan (NPP) (IRQ/PHA/58/INV/09), and the project to replace refrigerant CFC-12 with isobutane and foam-blowing agent CFC-11 with cyclopentane in the manufacturing of domestic refrigerators and chest freezers at Light Industries Company (IRQ/REF/57/INV/07) (decision 87/40(c)). At the time of second tranche submission to the 95th meeting, the projects listed above had not been completed by UNIDO; accordingly, the tranche was approved for UNEP only, noting that no further funding would be considered for UNIDO until the condition had been fulfilled. Furthermore, on an exceptional basis, the completion dates for stage I of the HPMP and projects IRQ/REF/57/INV/07 and IRQ/PHA/58/INV/09 were extended to 31 December 2025, on the understanding that UNIDO would correct the implementation status of the latter two to “ongoing” (ONG) in its 2024 annual and financial progress report, and submit to the 96th meeting a report on progress achieved in the implementation of all three projects (decision 95/52).

Progress report

54. On behalf of the Government of Iraq, UNIDO provided a progress report for the following projects:

- (a) *HPMP (stage I, second tranche) (servicing sector technical assistance):* UNIDO and the national ozone unit (NOU) discussed reallocating funds earmarked for the planned procurement of 40 refrigerant identifiers to procurement of other essential tools for technicians;¹²
- (b) *NPP (conversion from CFC-11 to cyclopentane at two polyurethane foam manufacturers):* Nassr State Company developed the terms of reference (TOR) for equipment installation and commissioning, selected a local contractor, received chemicals for training purposes, completed civil works, and began equipment commissioning, installation, and testing; Iraqi Steel received a site visit, completed the TOR for equipment installation and commissioning and the ensuing bidding process, and expects to award the resulting contract by end of April 2025; and
- (c) *Project to replace CFC-12 with isobutane and CFC-11 with cyclopentane in domestic refrigeration manufacturing at Light Industries:* the TOR for equipment installation and

¹² Including electronic leak detectors for several refrigerants, charging oil pumps, portable nitrogen blowing equipment, torque wrench tool sets, Lokring pliers, assembly jaws, and connectors of different diameters.

commissioning and the ensuing bidding process were completed, with contract expected to be awarded by end of April 2025.

Level of fund disbursement

55. As of March 2025, fund disbursement for the second tranche of stage I of the HPMP and for the NPP has reached 29.1 and 93.6 per cent, respectively; and the total amount of US \$2,161,581 approved for the conversion project at Light Industries had been disbursed, and as shown in table 6. The remaining balances will be disbursed by December 2025.

Table 6. Financial report of projects to be completed for Iraq (US \$)

Projects	Funds approved	Funds disbursed	Disbursement rate (%)	Fund balance
HPMP (stage I, 2 nd tranche)	230,000	66,856	29.1	*163,144
NPP (Nassr State Company and Iraqi Steel)	4,353,530	4,073,600	93.6	**279,930
Conversion at Light Industries	2,161,581	2,161,581	100	0

* Including US \$155,080 obligated for the procurement of tools and equipment for technicians

** Including US \$187,083 obligated for the ongoing enterprise conversion activities

Secretariat's comments

56. Regarding the outstanding activity from stage I of the HPMP, the Secretariat acknowledged that resolving the supply issues delaying the procurement of refrigerant identifiers for years was beyond the project scope and noted UNIDO's proposal to procure alternative tools and equipment for an estimated 100 servicing technicians instead. UNIDO explained that tools would be selected specifically to address the immediate need for reducing leaks in existing equipment and to promote leakage prevention, detection and equipment repair, and that refrigerant identifiers would be eventually acquired under stage II, along with additional tools for good servicing practices, once the global supply situation allowed. Noting that reducing demand for new HCFC-22 in Iraq was critical as the 2020–2024 consumption of this substance remained at 66.39 ODP tonnes, i.e. only 0.01 ODP tonne below the maximum allowable consumption level; that the procurement and distribution of equipment and tools to technicians had been part of the action plan for the second tranche of stage I of the HPMP;¹³ and that the Agreement for stage I allowed flexibility in addressing specific needs arising during project implementation in the refrigeration servicing sector, the Secretariat accepted the proposed solution.

57. On the implementation of the NPP project at Nassr State Company, UNIDO confirmed that it had been prioritized and progressed faster than conversions at the other two enterprises. The currently ongoing process of equipment commissioning, installation and testing, expected to last from five to eight weeks, will be completed with onsite verification and safety inspection. UNIDO further explained that lessons learned from the Nassr conversion informed the TOR preparation for Iraqi Steel (NPP) and Light Industries, *inter alia* by requiring that enterprise readiness and commitment to project completion be assessed through site visits carried out by project coordinator and the NOU. The process of equipment commissioning and installation at both beneficiaries, including mechanical and electrical components and civil works, is estimated to last from five to eight weeks, with project completion expected by September 2025.

58. UNIDO confirmed that it would continue to monitor implementation progress and actively address any arising challenges to ensure the timely completion of all ongoing projects by 31 December 2025, including the delivery and distribution of tools to beneficiaries, and that refrigerant identifiers would be acquired during stage II, once the supply issue was resolved.

¹³ Table 2 of document UNEP/OzL.Pro/ExCom/74/34

Recommendation

59. The Executive Committee may wish:

- (a) To note the reports on progress achieved in completing stage I of the HCFC phase-out management plan, the national phase-out plan (first tranche) (IRQ/PHA/58/INV/09), and the project to replace refrigerant CFC-12 with isobutane and foam-blowing agent CFC-11 with cyclopentane in the manufacturing of domestic refrigerators and chest freezers at Light Industries Company for Iraq (IRQ/REF/57/INV/07), submitted by UNIDO and contained in document UNEP/OzL.Pro/ExCom/96/11; and
- (b) To request UNIDO to submit to the 97th meeting a progress report on the completion of projects referred to in subparagraph (a) above.

Kenya: HCFC phase-out management plan (stage II – change of technology for a supermarket (Woolmatt)) (Government of France)

Background

60. At the 94th meeting, the Executive Committee decided to defer, to the 95th meeting, consideration of the revised proposal for the incentive scheme for the commercial refrigeration sector under stage II of the HCFC phase-out management plan (HPMP) for Kenya that had been submitted at the 94th meeting, on the understanding that the Governments of France and Kenya would submit, to the 95th meeting, a further revised proposal reallocating some or all of the funds under the project to other end-user incentive programmes to promote the adoption of low-global-warming-potential (GWP) technologies in the country and reducing the level of training support in comparison with the proposal submitted at the 94th meeting (decision 94/12).

Revised proposal

61. In response to the decision, the Government of France provided updated information on technology conversion as follows:

- (a) Another supermarket, Woolmatt in Nakuru has expressed interest in participating in the project by converting to a transcritical CO₂-based system. The conversion is planned to be implemented in the main branch in the city centre of Nakuru and involves a total cooling capacity of about 40 kW. This will entail replacement of eight multideck systems with a total refrigerant charge of 28 kg of HCFC-22 by a centralized transcritical CO₂-based system and also integrate some freezers and coolers to have one overall energy-efficient central system;
- (b) The total budget for this project, including commissioning, training and monitoring, is US \$365,000. This includes eight multi-deck systems (US \$120,000), transcritical CO₂ ejector rack, electrical panel and gas cooler (US \$105,000), other accessories and components (US \$30,000), commissioning and operations training by an international expert (US \$15,000), shipment, insurance and other clearance expenses (US \$50,000), technical support for design, evaluation relating to procurement process (US \$10,000), monitoring energy consumption with smart meters and technical support (US \$5,000), and technical and operational support for procurement, shipment and installation (US \$30,000);
- (c) The existing equipment using HCFC-22 in the supermarket will be destroyed and the HCFC-22 recovered from the equipment would be reused after recovery;

- (d) Assuming a remaining life of five years that includes end-of-life emission levels and an estimated leakage rate of 50 per cent, the total direct emission GWP savings over four years are estimated at 126.7 CO₂-eq tonnes;
- (e) Woolmatt is estimated to co-finance in the amount of US \$35,000 that includes the costs for the removal and disposal of the old system, installation of the new CO₂ system, purchase of two cold rooms, including construction/installation, and staff/service technicians.¹⁴ Additionally, under the Green Cooling Initiative (GCI), funded by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), a transcritical CO₂ ejector and tools were donated for RAC training to the Nairobi National Polytechnic (NNP); and, with support from GCI, trainers and technicians have been trained in Germany and Kenya, at an estimated cost of about US \$80,000. Thus, the total cost for co-financing is estimated to be US \$115,000; and
- (f) Training would be provided to operators in the supermarkets and service technicians on safe operations of the transcritical CO₂-based system. GCI trained one trainer in Germany and one international trainer in Kenya. Four trainers have also been trained on operating and maintaining transcritical CO₂-based systems in Kenya. During the conversion of the supermarket, an international trainer will do a detailed training for the operators and the servicing company in Nakuru. In addition, the international technology supplier will have remote access to the system and will be available for virtual aftersales service. The procurement contract would include all relevant materials and spare parts (e.g. valves, sensors, electrical cables, seals, oils, etc.) to ensure that, in an event of failure, the servicing company can change them immediately.

62. In line with decision 84/84(d),¹⁵ the Government of France would submit detailed reports on the results of existing and future end-user projects once they have been completed, to allow the Secretariat to develop fact sheets to inform future projects.

Secretariat's comments

63. The Secretariat requested information regarding the change in technology and the rationale behind the supermarket's choice of CO₂-based transcritical systems. The Government of France explained that the supermarket opted for a transcritical CO₂-based system over R-290 due to the size and requirements of such refrigeration systems for their low and medium temperature applications, lower operating costs, and the ability to maintain and service this equipment through trained service technicians. In terms of investment costs, the difference between the two systems within the company is not estimated to be significant. Furthermore, it was clarified that the technology choice made by Woolmatt aligns with the originally approved technology from stage II of the HPMP for Kenya.

64. On awareness and outreach of the alternative technologies, the Government of France mentioned that outreach activities on project performance will be implemented through different project activities relating to green cooling and energy efficiency, including potential development of credit lines for supermarkets via German banking/investment groups KfW or DEG, conducting stakeholder workshops on green supermarkets under activities in the HPMP and the Kigali HFC implementation plan in the future, and organizing presentations in national and international events and regional network meetings. In addition, information on energy consumption and emission savings through this technology will be provided to the National Environment Management Authority and energy regulatory authorities.

¹⁴ The supermarket would also purchase and install a 120-kW solar system at an estimated cost of US \$58,500 to reduce overall indirect emissions from energy consumption.

¹⁵ Blanket approval decision

65. On scalability of the project, the Government of France explained that based on the performance of this system, two other supermarkets/branches of Woolmatt could install the transcritical CO₂-based system. Moreover, there are currently an estimated 500 supermarkets in Kenya (Naivas, Quickmart, Chandarana FoodPlus, Carrefour, etc.) that could also consider using CO₂-based systems in their supermarkets in place of existing HFC-based systems. Based on experience in implementing similar projects in the region (e.g., South Africa), it is known that once the new CO₂-based technology is commissioned and performance is demonstrated, there would be other users interested in adopting this technology.

Recommendation

66. The Executive Committee may wish:

- (a) To note the revised proposal for the incentive scheme for the commercial refrigeration sector under stage II of the HCFC phase-out management plan (HPMP) for Kenya, submitted by the Government of France, as contained in document UNEP/OzL.Pro/ExCom/96/11;
- (b) To approve the revised proposal referred to in sub-paragraph (a) above, on the understanding that no additional costs for the conversion would be provided by the Multilateral Fund; and
- (c) To also note that the Government of France, in line with decision 84/84(d), would submit detailed reports on the results of existing and future end-user projects once they have been completed, to allow the Secretariat to develop fact sheets to inform future projects.

Mali: HCFC phase-out management plan (stage I, fifth tranche – implementation of the work programme associated with the final tranche) (UNEP and UNDP)

Background

67. At its 92nd meeting, the Executive Committee approved the extension of stage I of the HCFC phase-out management plan (HPMP) to 31 December 2024, on the understanding that no further extension would be requested, and requested the Government of Mali, UNEP, and UNDP to submit a progress report on the implementation of the work programme associated with the final tranche to the first meeting of 2025. The delays to the project were due to several factors, mainly that since 2012, the country has been affected by political and security matters as well as the COVID-19 pandemic control measures. Despite the challenging situation, Mali has been steadily implementing their HPMP and remains in compliance with the Montreal Protocol.

Progress report

68. In line with decision 92/8(b), on behalf of the Government of Mali, UNEP as the lead implementing agency, submitted a progress report on the implementation of the work programme associated with the final tranche. As of May 2025, of the US \$56,000 approved for the final tranche, US \$28,000 had been disbursed by UNEP, and while no disbursement had been made prior to 31 December 2024, US \$28,000 was allocated by UNDP. The balance of US \$28,000 will be disbursed by UNDP at the end of May 2025.

69. Under UNEP's component, two workshops were held for 62 customs and environment officers and other enforcement agents (including 26 women) on the identification and control of HCFCs and HCFC-based equipment as well as enforcement of the quota system (against 40 planned); four workshops were held for 70 refrigeration technicians (including 35 women) on good practices in servicing air-conditioning equipment, including the recovery and recycling of HCFCs and the safe handling of

hydrocarbon refrigerants (against 50 planned); and project monitoring activities took place. Due to prevailing security issues in the country, the national ozone unit (NOU) brought the enforcement officers and refrigeration and air-conditioning (RAC) technicians to Bamako, the capital city, in order to mitigate uncertainty.

70. The implementation of UNDP's component of awareness creation for RAC technicians and customs officers was delayed due to the agency's internal administrative issues. In 2024, UNDP's country office had a gap in personnel which impacted the transfer of funds from headquarters to the country office. These challenges have now been resolved, with new personnel in the country office working closely with the NOU and other relevant partners to complete two training workshops by the end of May 2025.

Secretariat's comments

71. The Secretariat notes the status report on the implementation of training activities for the customs and enforcement personnel, workshops held for refrigeration technicians, and awareness activities for RAC technicians and customs officers. UNEP informed the Secretariat that the new NOU in Mali proactively and efficiently implemented the HPMP and established close cooperation with national stakeholders, including customs and enforcement officers and RAC technicians. The Secretariat notes that the country was able to move forward with activities despite challenging circumstances and to complete the UNEP component, although internal UNDP administrative issues have hindered fund transfer for the UNDP component. A very short extension would allow the country to benefit from receiving the needed assistance, especially for customs and enforcement officers and RAC technicians.

Recommendation

72. The Executive Committee may wish:

- (a) To note the report on progress made in the implementation of the work programme associated with the final tranche of stage I of the HCFC phase-out management plan (HPMP) for Mali, as submitted by UNEP and contained in document UNEP/OzL.Pro/ExCom/96/11;
- (b) To approve, on an exceptional basis, the extension to 30 June 2025, of the completion date of stage I of the HPMP for Mali to allow the operational completion of the UNDP component of the project (MLI/PHA/92/INV/46); and
- (c) To request the Government of Mali, UNEP, and UNDP to submit the project completion report for stage I of the HPMP within six months of the operational completion of the projects, as per decisions 23/8(i) and 81/29.

Mexico: HCFC phase-out management plan (stage II – progress report on the implementation of the work programmes associated with the fifth and final tranche) (UNIDO)

Background

73. At its 92nd meeting, in approving the fifth and final tranche of stage II of the HCFC phase-out management plan (HPMP) for Mexico, the Executive Committee requested the Government of Mexico, UNIDO, UNEP, and the Governments of Germany, Italy and Spain to submit a progress report on the implementation of the work programmes associated with the final tranche to the first Executive Committee

meeting in 2025, verification reports until approval of stage III,¹⁶ and the project completion report to the second Executive Committee meeting in 2025 (decision 92/24(a)).¹⁷

74. The Government of Mexico reported a consumption of 168.23 ODP tonnes of HCFCs in 2023 and estimated a consumption of 165.78 ODP tonnes of HCFCs in 2024, which is 85.4 per cent and 85.6 per cent, respectively, below the HCFC baseline for compliance.¹⁸ The 2020–2024 HCFC consumption in Mexico is shown in table 7.

Table 7. HCFC consumption in Mexico (2020–2024 Article 7 data)

HCFC	2020	2021	2022	2023	2024*	Baseline
Metric tonnes (mt)						
HCFC-22	2,214.06	2,283.05	3,796.08	3,051.07	3,005.31	8,505.1
HCFC-123	-3.90	14.20	-2.22	21.07	24.46	73.10
HCFC-124	0.00	0.00	0.00	0.00	0.00	8.0
HCFC-141b	316.10	41.05	0.00	0.00	0.00	6,123.9
HCFC-142b	0.00	-0.44	-0.76	0.00	0.00	89.2
Total (mt)	2,526.25	2,337.86	3,793.10	3,072.14	3,029.77	14,799.3
ODP tonnes						
HCFC-22	121.77	125.57	208.78	167.81	165.29	467.8
HCFC-123	-0.08	0.28	-0.04	0.42	0.49	1.4
HCFC-124	0.00	0.00	0.00	0.00	0.00	0.2
HCFC-141b	34.77	4.52	0.00	0.00	0.00	673.6
HCFC-142b	0.00	-0.03	-0.05	0.00	0.00	5.8
Total (ODP tonnes)	156.46	130.34	208.69	168.23	165.78	1,148.8
Maximum allowable consumption	574.40	574.40	373.36	373.36	373.36	1,148.8

* Preliminary estimate. The verification of HCFC consumption in 2024 for Mexico is still being conducted as part of the preparation of the country programme implementation report.

Progress report

75. On behalf of the Government of Mexico, UNIDO submitted a report providing an update on the progress achieved on the remaining activities in the refrigeration servicing sector. This includes:

- Eighteen agreements were established with training centres to continue providing training in best practices to refrigeration technicians for a total of 22 training institutions assisted during stage II; and 6,000 manuals of best practices in refrigeration were distributed among the centres;
- Twenty new instructors (12 women) were trained in best practices in refrigeration and the safe handling of hydrocarbons (HC) for a total of 60 trainers trained during the stage. A total of 2,934 technicians were trained in best practices in refrigeration under stage II. To increase women's participation in the refrigeration sector, a gender perspective was promoted, including a workshop on “Women in RAC sector” with the participation of 35 women. Online technicians training has also been made available based on the training programme for technicians and including targeted sessions on gender;
- The training of customs officers from previous tranches to increase the national capacity to eliminate the illicit trade of ODS and to reduce HCFC consumption was completed, with a total of 145 customs officers trained under stage II;

¹⁶ Stage III of the HPMP for Mexico was approved at the 95th meeting.

¹⁷ Annex IX of UNEP/OzL.Pro/ExCom/92/56

¹⁸ See paragraph 5 of document UNEP/OzL.Pro/ExCom/95/66 for the explanation of HCFC consumption trend.

- (d) A total of 1,000 servicing and flushing toolkits were distributed to 17 training centers and technicians; and
- (e) The supermarket demonstration unit based on CO₂ and HC procured in previous tranches has been installed in one training centre and tested successfully. The official inauguration and final hand-over of the equipment to the training centre is planned for April 2025.

76. Out of the total US \$11,087,772 approved in all tranches for stage II of the HPMP, US \$10,828,922 have been disbursed and previously committed obligations for US \$242,292 are being disbursed in 2025. UNEP already returned US \$5,071 of unused balances to the Fund at the 87th and 95th meetings, and UNIDO returned US \$199 at the 95th meeting and expects to return a preliminary estimate of US \$11,000 once financial closure is completed.

Secretariat's comments

77. At the Secretariat's request, UNIDO confirmed the operational completion date of stage II of the HPMP was 31 December 2024, as established by decision 90/46(b) and no new obligations have been made since that date. The only pending activity, expected to be completed by the second quarter of 2025, is the training of the remaining 1,800 technicians by the 22 training institutes (to achieve a total close to 5,000 technicians), which is being done directly by the training institutes assisted under stage II. The Secretariat notes that with the completion of the training, Mexico will have completed all activities planned under the last tranche of stage II of the HPMP.

Recommendation

78. The Executive Committee may wish to note the progress report on the implementation of the work programmes associated with the fifth and final tranche of stage II of the HCFC phase-out management plan for Mexico, provided by UNIDO and contained in document UNEP/OzL.Pro/ExCom/96/11.

Pakistan: HCFC phase-out management plan (stage II – final progress report on the implementation of the third and fourth tranches; and stage III – progress report on the Cool Point conversion project) (UNIDO and UNEP)

Background

79. The Executive Committee requested the Government of Pakistan, through UNIDO, to continue submitting progress reports on the implementation of the work programme associated with the third and fourth tranches of stage II of the HCFC phase-out management plan (HPMP) on a yearly basis until the completion of the project and the project completion report to the first meeting of 2025 (decision 92/15(b)); and to include, as part of the final progress report on the implementation of the final tranche of stage II of the HPMP, an update on the status of the ban on imports of HCFC-141b contained in imported pre-blended polyols; on the technology transfer in thermoware industries; and on the conversion project at the Dawlance enterprise, supported under stage II of the HPMP; and to report at the 96th meeting on the implementation of the conversion project in the Cool Point enterprise, supported under stage III of the HPMP (decision 95/55(b)).

80. In line with decisions 92/15(b) and 95/55(b), the Government of Pakistan, through UNIDO, has submitted a report on the above.

Progress report

Implementation of the third and fourth tranches of stage II of the HPMP

81. UNIDO confirmed that the conversion projects in four enterprises using HCFC-141b in foam applications and in one enterprise manufacturing extruded polystyrene (XPS) foam are completed.

82. Regarding the technology transfer in the thermoware industries, UNIDO explained that tests with HFO blends were undertaken in early May 2025; the technical results showed that the final products with HFO blends could not meet the required standards. Based on the results, it was agreed that the beneficiaries would use cyclopentane and would implement the conversion with relevant safety measures at the enterprises at their own expense.

83. On the status of the implementation of the conversion project at the residential air-conditioning (AC) enterprise, Dawlance, UNIDO reported that by December 2025, only 5 per cent of the units manufactured by the enterprise would use R-410A; the rest of the units would be manufactured using HFC-32. Furthermore, UNIDO explained that the enterprise is planning to design HFC-32-based AC equipment with a capacity of greater than 2 TR¹⁹ in 2026; training is being provided to service technicians on good service practices and safety while using HFC-32.

Ban on imported pre-blended polyols

84. On the implementation of the ban on imported pre-blended polyols containing HCFC-141b, UNIDO explained that the ban was approved by the Economic Coordination Committee of the Government of Pakistan in early January 2025 and that it was implemented with effect from 31 January 2025. The import of HCFC-141b contained in imported pre-blended polyols in 2023 amounted to 317.47 mt; the data for 2024 has not yet been reported.

Level of fund disbursement

85. As of March 2025, of the total funds of US \$5,614,330 approved under stage II of the HPMP, US \$4,627,511 were disbursed.

Conversion of the project in Cool Point under stage III of the HPMP

86. On the status of the conversion of Cool Point, a beneficiary under the polyurethane foam sector project, UNIDO confirmed that the enterprise has closed its operations, stopped using HCFC-141b, and disposed of the baseline equipment. As of April 2025, UNIDO is having consultations with the Government on the next steps.

Secretariat's comments

87. The Secretariat noted that the ban on imported pre-blended polyols containing HCFC-141b was implemented, and that with the implementation of the ban, the availability of pre-blended polyols using HCFC-141b would cease and would fast-track the phase-out of HCFC-141b use in foam applications.

88. UNIDO confirmed that the project completion report for stage II of the HPMP will be submitted by June 2026, which is six months after the completion of the project.

¹⁹ Tons of refrigeration

89. On the ban on the use of other HCFCs in manufacturing by 1 January 2026, UNIDO also clarified that the Government is currently working on preparing the regulations and consulting relevant stakeholders and authorities for enforcement of the regulations.

90. Regarding the conversion project at Cool Point, the Secretariat notes UNIDO's ongoing discussions with the Government and requested UNIDO to provide a detailed action plan to the 97th meeting.

Recommendation

91. The Executive Committee may wish:

(a) To note:

(i) The information provided relating to decisions 92/15(b) and 95/55(b) on the implementation of the third and fourth tranches of stage II and first tranche of stage III of the HCFC phase-out management plan (HPMP) for Pakistan, as submitted by UNIDO and contained in document UNEP/OzL.Pro/ExCom/96/11;

(ii) That stage II of the HPMP for Pakistan is completed and the project completion report would be submitted by the end of June 2025; and

(b) To request UNIDO, on behalf of the Government of Pakistan, to submit to the 97th meeting a detailed action plan related to the conversion of the enterprise Cool Point in the polyurethane foam sector under stage III of the HPMP.

B. Reports on additional activities to maintain energy efficiency in the refrigeration servicing sector (decision 89/6)

Kyrgyzstan: Additional activities to maintain energy efficiency in the refrigeration servicing sector under decision 89/6(b) (progress report and request for extension of the completion date) (UNEP)

Background

92. At its 92nd meeting, the Executive Committee approved the project for additional activities for the introduction of alternatives to HCFCs with low or zero global-warming potential (GWP) and for maintaining energy efficiency in the refrigeration servicing sector in Kyrgyzstan, on the understanding that UNEP, on behalf of the Government of Kyrgyzstan, would submit a final report on the implementation of the project to the first meeting of 2025 (decision 92/24).

93. The objective of the project was to build upon the success of the HCFC phase-out management plan and activities to raise awareness and promote energy-efficient equipment with low-GWP refrigerants implemented as part of the enabling activities for HFC phase-down undertaken through the Ministry of Natural Resources, Ecology, and Technical Oversight. The project activities comprised of two main components: capacity-building of key staff and stakeholders; and an outreach and impact assessment.

94. In line with decision 92/24, UNEP, on behalf of the Government of Kyrgyzstan, has submitted a progress report to the present meeting.

Progress report

95. The report includes an update indicating that a small-scale funding agreement (SSFA) was signed in September 2023 with the Government of Kyrgyzstan, and that it was amended in December 2024 to extend the completion date of the project to 30 June 2025. UNEP has indicated that, as of April 2025, all

planned activities had been completed and 100 per cent of the approved project funds (US \$100,000) had been disbursed.

96. The following activities were implemented to build the capacity of key staff and stakeholders:

- (a) A study tour with the national ozone unit (NOU) and representatives of Kyrgyzstan's line ministries to Minsk, Belarus was organized to improve collaboration and gain knowledge on the promotion of energy efficiency and the use of low-GWP refrigerants through meetings with governmental agencies and enterprises;
- (b) Five seminars were held for customs and trade authorities discussing the importance of energy efficiency in the refrigeration sector, covering the Kigali Amendment, the country's energy efficiency policy, the Eurasian Economic Union (EEU) technical regulation on requirements for the energy efficiency of appliances, low-GWP alternatives, and an overview of energy efficient RAC equipment;
- (c) Seminars were held for RAC technicians on energy efficiency in RAC equipment, low-GWP HFC alternatives, and the HFC phase-down; and
- (d) An information session was held for utility agencies, building designers, developers, and construction enterprises promoting the use of energy-efficient and low-GWP refrigerants in refrigeration, air-conditioning, and heat-pump equipment.

97. The following activities were implemented for outreach, awareness-raising, and the completion of an impact assessment:

- (a) Outreach materials were produced and disseminated, including two videos and two infographics on energy efficiency ratings and refrigerant ODP and GWP values for customs and the public, a further two videos and two information posters for use in workshops on energy efficiency in the RAC sector, and a video for the public on energy efficiency considerations when purchasing RAC equipment;
- (b) Two seminars on energy efficiency for RAC equipment were held in Bishkek and Osh for importers and retailers, covering the HFC phase-down, EEU energy efficiency regulations, and national legislative frameworks, and included examples of energy-efficient solutions, alternative technologies, direct and indirect emissions, certification requirements, and the long-term implications of using high-GWP refrigerants; and
- (c) Data collection and analyses for the consumer awareness study and impact assessment have been completed, and findings highlighting key barriers have been developed.

Secretariat's comments

98. The Secretariat inquired about the delay in starting and completing the project and requested information about when the project will be completed. UNEP explained that the start of the project took time to establish the necessary agreement between UNEP and the Government and to release the first payment, commencing only in November 2023. The agreement was extended until June 2025 to allow for organization of the study tour to Belarus and to finalize the consumer awareness study and impact assessment. The preparation of the study tour required extensive coordination of the NOU and line ministries in Kyrgyzstan with governmental agencies and enterprises in Belarus. The activity has now been completed.

99. UNEP confirmed that all activities are completed, funds have been disbursed, and that it will submit to the 97th meeting a final progress report on the implementation of the project. The final report will include additional details about the outcomes of the project, such as lessons learned and recommendations from the study tour, the final number of technicians and customs officers trained, and the outcomes of the study and impact assessment.

Recommendation

100. The Executive Committee may wish:

- (a) To note the progress report on the project for additional activities for the introduction of alternatives to HCFCs with low or zero global-warming potential and for maintaining energy efficiency in the refrigeration servicing sector in Kyrgyzstan, as submitted by UNEP and contained in document UNEP/OzL.Pro/ExCom/96/11;
- (b) To approve, on an exceptional basis, the extension of the completion date of the project referred to in subparagraph (a) to 30 June 2025 on the understanding that no further extension would be requested; and
- (c) To request UNEP, on behalf of the Government of Kyrgyzstan, to submit the final progress report on the implementation of the project to the 97th meeting.

Maldives: Additional activities to maintain energy efficiency in the refrigeration servicing sector under decision 89/6(b) (request for extension of project completion date) (UNEP)

Background

101. The project on additional activities for the introduction of alternatives to HCFCs with low- or zero-global-warming potential (GWP) and on maintaining energy efficiency in the refrigeration servicing sector in Maldives was approved at the 91st meeting, in the amount of US \$100,000, plus agency support costs of US \$13,000, for UNEP (decision 91/60(a)). At the 93rd meeting, the Executive Committee approved, on an exceptional basis, the extension, to 30 June 2025, of the project completion date and requested the Government of Maldives and UNEP to continue submitting progress reports on the project implementation on a yearly basis until completion, and to submit a project completion report to the second Executive Committee meeting in 2025 (decision 93/20(b) and (c)). Subsequently, at the 95th meeting, the Committee took note of the yearly progress report on the project;²⁰ the progress report contained an updated workplan for the implementation of project activities with the latest expected implementation dates until March 2025.

Request for extension

102. On 12 December 2024, Maldives experienced a devastating fire that engulfed three major government ministries, including the Ministry of Tourism and Environment, under which the national ozone unit (NOU) operates. The fire resulted in the complete loss of all NOU computers, equipment, furnishings, essential documentation, and other critical materials. This incident significantly impaired the operational capacity of the NOU and disrupted the implementation of all activities, including those under the current project.

103. As of April 2025, despite the disruption caused by the fire incident, several activities have been completed. Two workshops and two awareness sessions were conducted for 38 customs officers, importers, and public officials, with 13 per cent of participants being female. These sessions highlighted the benefits

²⁰ Paragraphs 72-80 of document UNEP/OzL.Pro/ExCom/95/20

of promoting energy-efficient products under the Hakathari programme²¹ and emphasized the importance of energy conservation and adopting low-GWP refrigerant alternatives. Amendments were made to the Hakathari programme document to enhance inclusivity and streamline the labelling process. Development of awareness raising materials is underway to further educate end users on energy efficiency and the selection of low-GWP refrigeration and air-conditioning equipment. In April 2025, staff from the Energy Department and the NOU participated in a study tour to Malaysia to learn from the country's energy efficiency policies, labelling practices, technician licensing system, and refrigerant lifecycle management. Of the US \$100,000 approved, US \$34,560 (34.6 per cent) have been disbursed.

104. In light of the unforeseen events and their significant impact, UNEP, on behalf of the Government of Maldives, is requesting an extension of the project implementation period to 30 June 2026.²²

Secretariat's comments

105. The Secretariat acknowledged the challenges arising from the fire incident, which was beyond the country's control and halted project activities. Despite these setbacks, the Government of Maldives demonstrated notable progress between September 2024 and March 2025, with the disbursement rate increasing from 14.6 per cent reported to the 95th meeting to 34.6 per cent, and the completion of several training activities.

106. In response to a Secretariat's comment, UNEP provided an updated workplan presented in the table below. The Secretariat noted that the extension would enable the country to complete the remaining project activities.

Table 8. Updated workplan for the implementation of activities to maintain energy efficiency in the refrigeration servicing sector in Maldives

Activity	Deliverable/target	Approved funds (US \$)	Status	Expected implementation dates
Capacity-building of key staff and stakeholders				
Coordination and collaboration with relevant agencies through capacity-building training	Study tour, report, and recommendations	35,000	The venue and date for the study tour have been confirmed	April 2025
Training/information sessions for importers, customs officers, utility agencies, building designers, building developers, and construction companies	Five workshops/information sessions for a total of 140 participants	13,000	The dates and venue for the training are being finalized	December 2025
Outreach and impact assessment				
Development and dissemination of outreach materials	Five awareness videos and five infographics produced and disseminated	37,000	A service company for the development and dissemination is being hired to produce videos and infographics	December 2025

²¹ The Hakathari programme is a voluntary energy efficiency labelling initiative. It applies to appliances such as air conditioners and domestic refrigerators and includes information on refrigerant type, ozone-depleting potential (ODP), and GWP. It also sets minimum energy performance standards, with the aim of making the labels mandatory for all equipment importers by 2024, thereby promoting low-GWP refrigerants and energy-efficient technologies.

²² UNEP is also requesting funding for "additional emergency assistance for institutional strengthening" for the country as part of the UNEP's work programme for 2025 (UNEP/OzL.Pro/ExCom/96/21).

Activity	Deliverable/target	Approved funds (US \$)	Status	Expected implementation dates
Consumer behaviour study	One consumer behaviour study developed and implemented	15,000	The terms of reference and questionnaire for the study have been developed. A service provider is currently being contracted to conduct the study	May 2026
Total		100,000		

Recommendation

107. The Executive Committee may wish:

- (a) To note the request for extension of the project on additional activities for the introduction of alternatives to HCFCs with low- or zero-global-warming potential and on maintaining energy efficiency in the refrigeration servicing sector in Maldives, as submitted by UNEP and contained in document UNEP/OzL.Pro/ExCom/96/11;
- (b) To approve, on an exceptional basis, and on the understanding that no further extension would be approved, the extension, to 30 June 2026, of the completion date of the project referred to in subparagraph (a) above; and
- (c) To request the Government of Maldives and UNEP to continue submitting progress reports on the implementation of the project referred to in subparagraph (a) above on a yearly basis until the completion of the project and to submit a project completion report to the second meeting of the Executive Committee in 2026.

Annex I

**PROJECTS THAT ARE CLASSIFIED AS “SOME PROGRESS” AND ARE RECOMMENDED
FOR CONTINUED MONITORING**

Country	Code	Project title	Agency
Burundi	CBI/PHA/88/TAS/28	HCFC phase-out management plan (stage II, first tranche)	UNEP
Saint Vincent and the Grenadines	STV/PHA/86/TAS/26	HCFC phase-out management plan (stage I, third tranche)	UNEP
Zimbabwe	ZIM/REF/82/INV/55	Conversion from HFC-134a to isobutane in the manufacture of domestic refrigerators at Capri (SME Harare)	UNDP
Zimbabwe	ZIM/REF/82/INV/56	Conversion from HFC-134a to isobutane in the manufacture of domestic refrigerators at Capri (SME Harare)	France

Annex II

**PROJECTS THAT ARE CLASSIFIED AS “NO PROGRESS” AND ARE RECOMMENDED FOR
CONTINUED MONITORING**

Country	Code	Project title	Agency
Afghanistan	AFG/PHA/79/INV/22	HCFC phase-out management plan (stage I, third tranche)	UNIDO
Afghanistan	AFG/PHA/85/INV/28	HCFC phase-out management plan (stage I, fourth tranche)	UNIDO
Afghanistan	AFG/PHA/85/INV/30	HCFC phase-out management plan (stage II, first tranche)	UNIDO
Democratic Republic of the Congo (the)	DRC/PHA/88/INV/49	HCFC phase-out management plan (stage II, first tranche)	UNDP

Annex III**PROJECTS FOR WHICH ADDITIONAL STATUS REPORTS ARE REQUESTED**

Country	Code	Project title	Agency	Recommendation to the 97th meeting
Lebanon	LEB/PHA/92/INV/101	HCFC phase-out management plan (stage II, fourth tranche)	UNDP	To request UNDP to submit a status report to the 97 th meeting on implementation progress
Suriname	SUR/SEV/86/INS/30	Extension of the institutional strengthening project (phase VII: 1/2021-12/2022)	UNEP	To request UNEP to submit a status report to the 97 th meeting on implementation progress including an update on the resolution of the administrative challenges and funds disbursement
Suriname	SUR/PHA/92/INV/32	HCFC phase-out management plan (stage I, fourth tranche)	UNIDO	To request UNIDO to submit a status report to the 97 th meeting on operational completion and funds disbursement
Suriname	SUR/PHA/93/TAS/34	HCFC phase-out management plan (stage II, first tranche)	UNEP	To request UNEP to submit a status report to the 97 th meeting on the signing of the small-scale funding agreement and funds disbursement