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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-eighth Meeting
Montreal, 15-19 November 2021¹

PROJECT PROPOSAL: PAKISTAN

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

Phase-out

- HCFC phase-out management plan (stage II, third tranche) UNIDO and UNEP

¹ Online meetings and an intersessional approval process will be held in November and December 2021 due to coronavirus disease (COVID-19)

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

PAKISTAN

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out management plan (stage II)	UNEP, UNIDO (lead)	76 th	50 % by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2020	122.21 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2020	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				0.00	0.00				
HCFC-124				0.00	0.00				
HCFC-141b		8.03		0.00	0.00				8.03
HCFC-141b in imported pre-blended polyols		75.90		0.00	0.00				75.90
HCFC-142b		2.99		0.00	0.00				2.99
HCFC-22		1.69		2.82	106.68				111.19

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	248.11	Starting point for sustained aggregate reductions:	248.11
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	154.58	Remaining:	91.38

(V) BUSINESS PLAN		2021	2022	2023	Total
UNIDO	ODS phase-out (ODP tonnes)	6.17	0.00	0.00	6.17
	Funding (US \$)	477,990	0	0	477,990
UNEP	ODS phase-out (ODP tonnes)	1.42	0.00	0.00	1.42
	Funding (US \$)	116,378	0	0	116,378

(VI) PROJECT DATA			2016	2017	2018*	2019	2020	2021	Total
Montreal Protocol consumption limits			223.30	223.30	223.30	223.30	161.27	161.27	n/a
Maximum allowable consumption (ODP tonnes)			223.30	223.30	223.30	223.30	124.06	124.06	n/a
Agreed funding (US \$)	UNEP	Project costs	200,000	0	200,000	0	103,000	0	503,000
		Support costs	25,976	0	25,976	0	13,378	0	65,330
	UNIDO	Project costs	2,350,200	0	1,979,852	619,938	446,720	0	5,396,710
		Support costs	164,514	0	138,590	43,396	31,270	0	377,770
Funds approved by ExCom (US \$)		Project costs	2,550,200	0	0	2,799,790*	0	0	5,349,990
		Support costs	190,490	0	0	207,962	0	0	398,452
Project funds requested for approval at this meeting (US \$)		Project costs	0	0	0	0	0	103,000**	103,000**
		Support costs	0	0	0	0	0	13,378**	13,378**

*The second tranche was approved at the 83rd meeting, and funding for an extruded polystyrene foam investment project was approved at the 84th meeting.

**The third tranche should have been submitted in 2020; the funding request is only for UNEP component.

Secretariat's recommendation:	For individual consideration
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PROJECT DESCRIPTION

1. On behalf of the Government of Pakistan, UNIDO as the lead implementing agency, has submitted a request for funding for the third and final tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$594,368, consisting of US \$446,720, plus agency support costs of US \$31,270 for UNIDO, and US \$103,000, plus agency support costs of US \$13,378 for UNEP.² The submission includes a progress report on the implementation of the second tranche, the verification report on HCFC consumption for 2018 to 2020 and the tranche implementation plan for 2021 to 2022.

Report on HCFC consumption

2. The Government of Pakistan reported a consumption of 122.21 ODP tonnes of HCFC in 2020, which is 51 per cent below the HCFC baseline for compliance. The 2016-2020 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Pakistan (2016-2020 Article 7 data)

HCFC	2016	2017	2018	2019	2020	Baseline
Metric tonnes						
HCFC-22	2,802.00	2,696.84	2,806.38	2,752.41	2,021.71	1,908.25
HCFC-123	0.00	2.09	0.00	0.00	0.00	0.00
HCFC-141b	552.89	504.16	298.67	495.50	73.00	1,259.10
HCFC-142b	16.50	46.02	46.00	44.00	46.00	71.55
Total (mt)	3,371.39	3,249.11	3,151.05	3,291.91	2,140.71	3,238.90
HCFC-141b in imported pre-blended polyols*	0.00	0.00	0.00	0.00	690.00	N/A
ODP tonnes						
HCFC-22	154.11	148.33	154.35	151.38	111.19	104.95
HCFC-123	0.00	0.04	0.00	0.00	0.00	0.00
HCFC-141b	60.82	55.46	32.85	54.51	8.03	138.50
HCFC-142b	1.07	2.99	2.99	2.86	2.99	4.66
Total (ODP tonnes)	216.00	206.82	190.19	208.75	122.21	248.11
HCFC-141b in imported pre-blended polyols*	0.00	0.00	0.00	0.00	75.90	N/A

* Country programme (CP) data.

3. Since 2016, the overall HCFC consumption has shown an overall decline except for an increase of the consumption of HCFC-141b in 2019, followed by a sharp decline in 2020, due to the completion of conversion of several foam manufacturing enterprises. The consumption of HCFC-142b is associated with the demand for extruded polystyrene (XPS) foam boards for insulation, which is expected to be phased out in 2023 when the conversion of one XPS foam manufacturing enterprise to dimethyl ether (DME)/CO₂/HFO technology will be completed. The major reduction in the consumption of HCFC-22 in 2020 was due to the conversion of domestic and commercial air-conditioning (AC) manufacturing enterprises to R-410A-based refrigerant, funded with their own resources, and to an increase in the production and import of R-410A-based domestic AC units due to market demand.

4. Under its CP data report, the Government of Pakistan reported for the first time a consumption of 75.90 ODP tonnes of HCFC-141b contained in imported pre-blended polyols for 2020 (equivalent to 55 per cent of the HCFC-141b baseline). UNIDO explained that the HCFC-141b contained in imported pre-blended polyols has not been monitored by the Government as that use is not controlled under the Montreal Protocol.

² As per the letter of 21 August 2021 from the Ministry of Climate Change of Pakistan to the Secretariat.

CP implementation report

5. The Government of Pakistan reported HCFC sector consumption data under the 2020 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

Verification report

6. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2018 to 2020 was correct (as shown in Table 1 above) except for 2018 where a consumption of 190.19 ODP tonnes was reported and 189.83 ODP tonnes was verified i.e., a difference of 0.36 ODP tonnes attributed to rounding. The verification concluded that the licensing and quota system is fully operational and working effectively and that there are no issues associated with recording and reporting imports and exports of controlled substances.

Progress report on the implementation of the second tranche of the HPMP

Legal framework

7. The licensing and quota systems for the import and export of HCFCs has been operational since 2013; importation of substances that have been phased out earlier is banned; HCFC-142b was added to the list of controlled substances under regulation SRO 634(1), the Pakistan Customs Rules was updated in 2014.

8. During stage II of the HPMP, 23 enforcement and customs officers have been trained on the identification of refrigerants, HS codes and illegal trade. With assistance from the national ozone unit (NOU), customs had incorporated HCFC into the online management system of license and quota (Web Based One Customs). During the second tranche, three customs officers participated in a regional training workshop on risk profiling for identification of risk indicators associated with illegal ODS trade. The Government is continuing to examine, *inter alia*, additional regulations including a ban on the import of products and equipment using or containing HCFC and HCFC blends; tax relief on non-HCFC-based products and higher taxes on HCFC-based products; a ban of new enterprises manufacturing refrigerators, AC equipment and foam products using HCFC or HCFC blends; a ban on the installation of manufacturing enterprises using HCFC and/or HCFC blends; and guidelines for handling, transportation, storage and disposal of ODSs, and for end-of-life management of RAC equipment.

Manufacturing sectors

Polyurethane (PU) foam

9. Stage II of the HPMP included the conversions of seven enterprises manufacturing PU thermoware (i.e., Shoaibee Industries, Asif Zubair and Co., Decent Plastic, Delight Plastic, Full Bright Industries, Tropical Plastic, and Unique Plastic) and other small enterprises, with an aggregated consumption of 34.06 ODP tonnes (309.6 mt) of HCFC-141b. The conversions of all these enterprises to water-blown technology have been completed resulting in the actual phase-out of 31.21 ODP tonnes (283.75 mt) of HCFC-141b.

10. Stage II also included the conversion of four enterprises manufacturing PU discontinuous panels (i.e., Koldkraft Refrigeration, Pakistan Air-Conditioning Engineering Co. (Pvt.) Ltd. (PAECO), Pakistan Insulation, and Foster Refrigerators) and other small enterprises to cyclopentane, with an aggregated consumption of 26.64 ODP tonnes (224.02 mt) of HCFC-141b. Bidding was carried out for the main equipment and accessories required for the conversion of these enterprises; however, procurement was delayed due to technical reasons associated with the final specifications of the equipment and the late

signing of contracts between the Government of Pakistan, UNIDO and the beneficiary enterprises, which occurred only during last quarter of 2020 due to constraints imposed by the COVID-19 pandemic. All four enterprises have finalized specifications of equipment with the supplier; procurement has been finalized, equipment was delivered to two enterprises (Koldkraft and Foster) early in 2021. Installation, testing and commissioning is expected to be completed by December 2021 for Koldkraft, and by June 2022 for Foster. The supplier is currently manufacturing the equipment for the other two enterprises (Pakistan Insulation and PAECO) with delivery expected by the end of 2021 and conversion completed by December 2022. Technical assistance continues to be provided for the small enterprises.

XPS foam

11. At the 84th meeting, the Executive Committee³ approved an investment project to phase out 4.68 ODP tonnes of HCFC-22 (1.69 ODP tonnes) and HCFC-142b (2.99 ODP tonnes) used by Symbol Industry in the manufacturing of XPS foam boards, through the conversion to dimethyl ether (DME)/CO₂/HFO technology. The bidding for the equipment required for the conversion was initiated in mid-2020, and subsequently canceled due to insufficient quality of the bids received; a second bidding process was completed and a contract for the supply of equipment was signed in August 2021. The supplier has started to manufacture the equipment and is expected to be delivered by the end of 2021 or early 2022; installation, testing and trials will be completed by December 2022.

Residential AC

12. Under the second tranche of stage II⁴, funding was approved for the phase-out of 7.39 ODP tonnes (134.40 mt) of HCFC-22 used in the manufacturing of domestic AC equipment by Dawlance Private Limited, Karachi, to R-290 technology. The progress report on the implementation of the project submitted to the 88th meeting indicated that the enterprise was purchased by a Turkish company⁵ in 2016, and began to manufacture domestic AC based on R-410A refrigerant in the same year.

13. UNIDO reported that new equipment to manufacture R-290 ACs had been delivered and installed, and trial and testing has been undertaken; most of the capital cost approved (US \$715,000) has been disbursed, while incremental operating costs (IOC) so far approved (US \$400,000) has not yet been disbursed. While the production line has been converted, the enterprise continues to experience delays because of difficulties in sourcing completely knocked down (CKD) kits for R-290 and the lack of regulations for use of flammable refrigerants in household AC equipment. So far, the enterprise has manufactured 10 R-290 AC units, which have been purchased and installed; and continues manufacturing a very limited number of R-290 AC units mostly for testing; concurrently, the enterprise is manufacturing AC units based on R-410A refrigerant (58,000 units/year), due to market demands. The full conversion to R-290 technology is expected to be completed by June 2022 if a sustainable source of the CKD kits can be found, and if there is a market for R-290-based AC equipment.

Refrigeration servicing sector

14. A total of 711 refrigeration and air-conditioning (RAC) technicians were trained on good servicing practices and safe use of hydrocarbon (HC) refrigerants, through eleven workshops. The UNEP guide on flammable refrigerants was translated into Urdu and 5,000 copies were distributed to technical institutes, technicians and other stakeholders. To overcome the constraints imposed by the pandemic, some of the

³ Decision 84/78

⁴ The project was approved in principle at the 76th meeting when stage II of the HPMP was approved. Funding for the conversion was approved at the 83rd meeting (May 2019).

⁵ Arçelik A.S., acquired Dawlance and became the sole shareholder; Arçelik A.S. is owned by Koç Group, one of Turkey's largest industrial conglomerates; the company remained with the same name and has been incorporated with Company Registration Office (CRO) Karachi as Private Limited Company.

training courses were completed through virtual means; however, this approach was not well received by most technicians due to limitations on the quality of the communications.

15. To facilitate the introduction of non-HCFC-based RAC equipment with emphasis on low-GWP refrigerants, the NOU held meetings with the RAC associations and distributed awareness materials on the phase-out of HCFCs and the impacts of alternative refrigerants on the climate; one workshop on alternative technologies and the handling of flammable refrigerants was held for 400 participants including importers, industry stakeholders, academics, and traders; a heating, ventilation, air-conditioning, and refrigeration conference was held for 200 participants from industry and large end-users; an event for world refrigeration day was organized; and an awareness workshop on matters related to the Montreal Protocol was held for 200 participants. Over 2,000 copies of awareness material for general public, which included material available on OzonAction website related to Kigali Amendment, cold chain supply and new refrigerants, were distributed to participants of the workshop.

16. Consultation meetings were held with the Sindh Board of Technical Education (SBTE) on the feasibility of including good servicing practices in the certification programme for technicians; a pilot certification programme was developed to support the implementation of a National Vocational Qualification Framework. The National Vocational and Technical Training Commission will incorporate good servicing practices and matters related to the Montreal Protocol in the vocational curriculum for schools across the country, ensuring regular updates of the curriculum on new developments in alternative technologies and requirements under the Montreal Protocol.

17. A recommendation to adopt international standards related to refrigerants designation and safety classification; operation, maintenance and repair of RAC equipment; and recovery of refrigerants was prepared with assistance from UNEP for approval of the Government, to facilitate the introduction of RAC equipment using low-GWP refrigerants. Standard operating procedures for handling of flammable and toxic refrigerants are being finalized. The NOU will monitor the implementation of these standards once enforced.

Project implementation and monitoring (PMU)

18. The NOU, located within the Ministry of Climate Change (MoCC), is responsible for project management, coordination, assessment and monitoring of the activities under the HPMP. Of the US \$324,500 allocated for the PMU (US \$294,500 for UNIDO and US \$30,000 for UNEP), UNIDO has disbursed US \$7,100 for staff and office equipment; UNEP has disbursed US \$23,000 for staff. The remaining budget of US \$287,400 for UNIDO and US \$7,000 for UNEP will be used in the third tranche. The low disbursement for the PMU is due to the constraints of the COVID-19 pandemic.

Level of fund disbursement

19. As of August 2021, of the US \$5,349,990 approved so far, US \$2,787,470 had been disbursed (US \$2,511,790 for UNIDO and US \$275,680 for UNEP) as shown in Table 3. The balance of US \$2,562,520 will be disbursed in 2021.

Table 3. Financial report of stage II of the HPMP for Pakistan (US \$)

Agency	First tranche		Second tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNIDO	2,350,200	1,705,059	2,599,790	806,731	4,949,990	2,511,790
UNEP	200,000	199,440	200,000	76,240	400,000	275,680
Total	2,550,200	1,904,499	2,799,790	882,971	5,349,990	2,787,470
Disbursement rate (%)	75		32		52	

Implementation plan for the third and final tranche of the HPMP

20. The following activities will be implemented between December 2021 and December 2022:
- (a) *Policy and enforcement, capacity building and development of standards:* Organize one capacity building workshop for 20 customs officers and one for 20 enforcement officers on the legal framework and the HCFC licensing system; print and disseminate the final standard operating procedure for servicing workshops for handling flammable refrigerants (UNEP) (US \$10,000);
 - (b) *PU foam manufacturing:* Finalize the ongoing conversion of the four enterprises and other small enterprises manufacturing PU discontinuous panels to cyclopentane (UNIDO) (funding from previous tranche);
 - (c) *XPS foam manufacturing:* Continue implementation of the conversion of the XPS foam enterprise (Symbol Industry) to DME/CO₂/HFO for completion in January 2023 (UNIDO) (funding from previous tranche);
 - (d) *AC manufacturing:* Complete the remaining activities of the conversion of Dawlance manufacturing domestic AC equipment to R-290 technology including full payment of IOC in line with the policies of the Multilateral Fund (UNIDO) (US \$446,720);
 - (e) *RAC training and certification:* Training workshops for an additional 200 RAC technicians on good servicing practices and safe handling and storage of flammable refrigerants; and implementation of the pilot certification system through the SBTE with 120 technicians certified (UNEP) (US \$74,000);
 - (f) *Promotion of alternative technologies:* Printing and dissemination of previously developed and translated materials on alternative technologies to HCFCs to stakeholders (UNEP) (US \$4,000); and
 - (g) *Project monitoring and implementation* (UNIDO) (funding from previous balance) and (UNEP) (US \$15,000) for consultants.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Progress report on the implementation of the second tranche of the HPMP

Legal framework

21. The Government of Pakistan has already issued HCFC import quotas for 2021 at 123.80 ODP tonnes, which is lower than the targets of the Montreal Protocol and its Agreement with the Executive Committee.

PU foam manufacturing

22. The progress reports submitted together with all funding tranche requests of the approved stages I and II of the HPMP provided information that the foam enterprises that have been funded under the Multilateral Fund were using only pure HCFC-141b; based on this, the projects for the conversion of these enterprises were reviewed and recommended for approval. For the first time, the Secretariat noted a reference to the use of HCFC-141b contained in imported pre-blended polyols in the proposal for stage III

of the HPMP for Pakistan but not in the tranche request for stage II submitted to the 87th meeting; both requests were subsequently withdrawn by UNIDO. Subsequent to this, the Government of Pakistan has reported the use of 690 mt (75.90 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols under the CP report. During the project review process, the Secretariat raised a concern that the lack of monitoring of the import of polyols containing HCFC-141b poses a serious risk to the sustainability of the phase-out of the foam enterprises that have converted to HCFC-free technologies with funding provided by the Multilateral Fund.

23. On this matter, UNIDO explained that the information provided under the CP data report was gathered from the survey conducted during the preparation of stage III of the HPMP. The Government of Pakistan has no mechanism in place to monitor the imports of pre-blended polyols including those containing HCFC-141b; therefore, the users of these systems are not known. UNIDO further confirmed that the Government had agreed to initiate controls to monitor the imports of HCFC-141b contained in pre-blended polyols and that it is considering to issue a ban on their import from 1 January 2026, to enable those foam enterprises that still are completing their conversions, and spray foam manufacturers that would be converted during stage III of the HPMP, to phase out their consumption. The Government also commits to regularly report consumption of HCFC-141b contained in imported pre-blended polyols in the CP data report. With regard to the foam enterprises that have been converted to non-HCFC-141b blowing agent, UNIDO has confirmed that the Government of Pakistan has monitoring mechanisms to ensure that the converted enterprises are no longer using HCFC-141b either pure or contained in pre-blended polyols.

AC manufacturing

24. The Secretariat raised a major concern regarding the project in Dawlance, noting for the first time that the progress report submitted to the 88th meeting reported that the enterprise changed ownership in 2016 (to another Article 5 fully-owned enterprise) and, thereafter, commenced producing AC equipment using R-410A as refrigerant, in place of HCFC-22. As a result of major delays experienced during the conversion of the production line, including difficulties in sourcing CKD kits for R-290, the enterprise had produced only 10 R-290 AC units as a trial run; the majority of the current production is for R-410A-based AC units (i.e., 58,000 units). It was also reported that 96 per cent of the AC manufactured in Pakistan is based on R-410A refrigerant, which would make the conversion to R-290 in Dawlance unsustainable.

25. Based on the above information, it was the Secretariat's view that UNIDO, in line with the policies of the Fund, should have reconsidered proceeding with the project in Dawlance, noting that the enterprise had commenced producing R-410A-based AC units the same year after the approval in principle of stage II of the HPMP.⁶ It was also noted that guidance from the Executive Committee should have been sought before financial commitments for procurement of equipment were made. As the enterprise has converted to R-410A, the Secretariat recommends cancellation for the project in Dawlance.

26. In response, UNIDO explained that the project was implemented as approved; the procurement and installation of equipment was initiated in line with the Agreement between the Government of Pakistan and the Executive Committee. Dawlance, started producing AC equipment with R-410A refrigerant from 2016 onwards, based on orders from its customer, that AC manufacturing enterprises in Pakistan converted to R-410A technology with their own resources, and in line with the global context of the technology conversion in the AC manufacturing sector with the introduction of higher energy efficiency equipment at affordable costs. UNIDO reiterated that the enterprise is fully committed to the conversion to R-290 and will be able to completely convert production only after pilot production demonstrates marketability of the product, supported by local regulations on the safety standards required for use of flammable refrigerants.

⁶ Stage II was approved in principle at the 76th meeting (April 2016), and the change of ownership in Dawlance was started in early 2016 and finalized in November 2016. Production of the enterprise in 2016 was 40 per cent with R-410A and 60 per cent with HCFC-22, with increasing share of R-410A from 2017; current production (2020) is 99 per cent using R-410A.

This conversion will require more time and effort, and UNIDO proposed that the enterprise be allowed to continue its activities to enable substantial progress in the introduction of the R-290 technology by June 2022 on the understanding that no IOC will be paid unless the enterprise has fully converted its production line. If by that time the challenges for fully converting to R-290 technology remain, UNIDO will request the Executive Committee for a change in technology to HFC-32 to enable the conversion to a lower-GWP alternative, with eventual project completion in December 2023.

27. Cognizant that project cancellation can only be done after mutual agreement between the Secretariat and UNIDO and the Government of Pakistan, and noting the explanations by UNIDO on the commitment of the enterprise to convert to R-290 or HFC-32-based technologies, the Secretariat considered pertinent to defer consideration of the project for Dawlance to the 90th meeting to allow the Government and UNIDO to continue pursuing the implementation of the project as approved, and to provide updated information on the progress of the enterprise's conversion to that meeting.

28. The UNEP component of the tranche for the servicing sector in the amount of US \$103,000, plus agency support costs, continues to be requested at this meeting. This funding is necessary for the servicing sector where activities need to be implemented to support the continued training of technicians and the certification of technicians which is being launched as part of this tranche.

Impact of the COVID-19 pandemic on HPMP implementation and request for extension for stage II

29. Pakistan has been impacted by the COVID-19 pandemic and has implemented numerous restrictions that have caused a delay in the implementation of the activities under stage II of the HPMP. UNIDO and UNEP have provided a list of activities still to be implemented and the associated remaining budget and plan to include the remaining activities from the previous tranche as part of the third tranche implementation. Noting the inclusion of the investment project for the conversion of the XPS foam manufacturing enterprise, it is anticipated that stage II of the HPMP will be completed by 31 December 2023. The Secretariat recommends this extension to enable the completion of the remaining activities in the country, in particular the XPS foam project which was approved at the 84th meeting.

Gender policy implementation⁷

30. UNIDO clarified that stage II of the HPMP did not include a formal results framework on gender mainstreaming as it was designed and approved prior to decision 84/92. UNIDO will discuss with the Government of Pakistan how to integrate gender indicators in the remaining activities of stage II using UNIDO's Guide on Gender Mainstreaming for Multilateral Fund Projects. The Government of Pakistan and the implementing agencies recognize their responsibility in supporting gender equality and women empowerment. Moreover, the NOU has always encouraged women to work in the RAC sector. As such, last year five female students were enrolled in a RAC diploma course.

Revision to the HPMP Agreement

31. The Agreement between the Government of Pakistan and the Executive Committee for stage II of the HPMP has been updated in line with decision 84/78(c)(iii)⁸, to reallocate the UNIDO component of the third tranche to 2022 as the fourth tranche, and to reflect the extension of the Agreement to

⁷ Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

⁸ *Inter alia* that the Agreement between the Government of Pakistan and the Executive Committee for stage II of the HCFC phase-out management plan would be revised to include the approval of the project for the conversion of Symbol Industries from the use of HCFC-142b/HCFC-22 to HFO/CO₂/DME in the manufacture of extruded polystyrene foam boards, and the deduction of the associated HCFC tonnage.

31 December 2023, as contained in Annex I to the present document. The full updated Agreement will be appended to the report of the 88th meeting.

Sustainability of the HCFC phase-out

32. The Government of Pakistan has an enforceable licensing and quota system, and will implement a ban on the import and export of HCFC-142b from 1 January 2023. Forthcoming bans such as on imports of products and equipment containing HCFCs, investments of new plants using HCFCs, and uncontrolled release of HCFC during servicing are being studied and will be implemented as part of stage III of the HPMP. The Government of Pakistan has also committed to monitor and report the consumption of HCFC-141b contained in imported pre-blended polyols to ensure the sustainability of the phase-out of the foam enterprises funded by the Multilateral Fund, and undertakes to ban this use by 2026. The Government also undertakes to ensure the sustainability of the conversion of the foam enterprises funded in stage I and II of the HPMP in view of the large amount of imports of HCFC-141b contained in polyols that was reported only in 2020. The planned technical assistance activities to train stakeholders, the training programmes for technicians and enforcement officers, the close cooperation with the RAC association and the continuous implementation of awareness and information outreach programme on HCFC phase-out, would further ensure the sustainability of HCFC phase-out.

Conclusion

33. The Government of Pakistan is in compliance with the Montreal Protocol and its Agreement with the Executive Committee. The consumption of HCFCs in 2020 is 51 per cent below the baseline for compliance, and is slightly lower than the limits established in the Agreement for that year. The overall level of disbursement is 52 per cent. Training was provided on emerging technologies and safe handling and storage of flammable refrigerants, and a code of conduct for good refrigeration servicing practices is currently under development. The conversion of seven enterprises and other small enterprises manufacturing PU thermoware resulted in the phase out 34.06 ODP tonnes of HCFC; the remaining four PU foam enterprises producing discontinuous panels, are expected to be completed by December 2022. The conversion at the XPS foam enterprise is progressing. While the conversion of the AC manufacturing enterprise raised a number of concerns, it was agreed that consideration of this be deferred to the 90th meeting allowing the Government and UNIDO to continue pursuing the implementation of the project as approved, and provide updated information on the progress of the enterprise's conversion to that meeting. Activities planned under the third tranche for the servicing sector, including training of customs and enforcement officers, training of refrigeration technicians, and establishment of the technician certification scheme are required as activities in this sector to continue to support capacity building in the servicing sector.

RECOMMENDATION

34. The Executive Committee may wish to consider:

- (a) Noting the progress report on the implementation of the second tranche of stage II of the HCFC phase out management plan (HPMP) for Pakistan;
- (b) Further noting the deferral of consideration of the UNIDO component of the third tranche of stage II relating to the project to convert the manufacturing of domestic air-conditioners from HCFC-22 to R-290 at Dawlance, to the 90th meeting;
- (c) Requesting UNIDO to submit a detailed report on the progress in the implementation of the project mentioned in sub-paragraph (b) above, to the 90th meeting;
- (d) Extending, on an exceptional basis, the date of completion of stage II of the HPMP for

Pakistan to 31 December 2023, given delays in completing ongoing activities due to the COVID-19 pandemic, on the understanding that no further extension of project implementation would be requested;

- (e) Noting that the Fund Secretariat has updated the Agreement between the Government of Pakistan and the Executive Committee, as contained in Annex I to the present document, specifically: Appendix 2-A, based on decision 84/78(c)(iii) to include the investment project for the extruded polystyrene foam enterprise in the HPMP, the reallocation of the UNIDO component of the third tranche to 2022 as the fourth tranche, and the extension of stage II of the HPMP to 31 December 2023; and paragraph 16, to indicate that the revised updated Agreement superseded that reached at the 83rd meeting; and
- (f) Approving the third tranche of stage II of the HPMP and the corresponding 2021- 2022 tranche implementation plan for UNEP at the amount of US \$103,000, plus agency support costs of US \$13,378.

Annex I

TEXT TO BE INCLUDED IN THE REVISED UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF PAKISTAN AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN

(Relevant changes are in bold font for ease of reference)

16. This **revised** updated Agreement supersedes the Agreement reached between the Government of Pakistan and the Executive Committee at the **83rd** meeting of the Executive Committee.

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2016	2017	2018	2019*	2020	2021	2022	2023	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	223.30	223.30	223.30	223.30	161.27	161.27	161.27	161.27	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	223.30	223.30	223.30	223.30	124.06	124.06	124.06	124.06	n/a
2.1	Lead IA (UNIDO) agreed funding (US\$)	2,350,200	0	1,979,852	619,938	0	0	446,720	0	5,396,710
2.2	Support costs for lead IA (US\$)	164,514	0	138,590	43,396	0	0	31,270	0	377,770
2.3	Cooperating IA (UNEP) agreed funding (US\$)	200,000	0	200,000	0	0	103,000	0	0	503,000
2.4	Support costs for Cooperating IA (US\$)	25,976	0	25,976	0	0	13,378	0	0	65,330
3.1	Total agreed funding (US\$)	2,550,200	0	2,179,852	619,938	0	103,000	446,720	0	5,899,710
3.2	Total support costs (US\$)	190,490	0	164,566	43,396	0	13,378	31,270	0	443,100
3.3	Total agreed costs (US\$)	2,740,690	0	2,344,418	663,334	0	116,378	477,990	0	6,342,810
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)									15.98
4.1.2	Phase-out of HCFC-22 to be achieved through previously approved projects (ODP tonnes)									7.40
4.1.3	Remaining eligible consumption of HCFC-22 (ODP tonnes)									81.57
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)									58.69
4.2.2	Phase-out of HCFC-141b to be achieved through previously approved projects (ODP tonnes)									71.70
4.2.3	Remaining eligible consumption of HCFC-141b (ODP tonnes)									8.11
4.3.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)									2.99
4.3.2	Phase-out of HCFC-142b to be achieved through previously approved projects (ODP tonnes)									0.00
4.3.3	Remaining eligible consumption of HCFC-142b (ODP tonnes)									0.00*

* The country had agreed to phase out all consumption of HCFC-142b with the funding provided for the extruded polystyrene foam project