



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/70/39
30 May 2013

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventieth Meeting
Bangkok, 1-5 July 2013

PROJECT PROPOSAL: PAKISTAN

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

Phase-out

- HCFC phase-out management plan (stage I, second tranche)

UNIDO/UNEP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Pakistan

(I) PROJECT TITLE	AGENCY
HCFC phase-out management plan (stage I)	UNIDO (lead), UNEP

(II) LATEST ARTICLE 7 DATA	Year: 2011	276.05 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)							Year: 2011		
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123									
HCFC-124									
HCFC-141b				156.95					156.95
HCFC-142b									
HCFC-22				29.58	89.52				119.10

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline (estimate):	247.4	Starting point for sustained aggregate reductions:	247.4
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	79.1	Remaining:	168.3

(V) BUSINESS PLAN		2013	2014	2015	Total
UNIDO	ODS phase-out (ODP tonnes)	0.97	0.24	0	1.21
	Funding (US \$)	86,000	21,500	0	107,500
UNEP	ODS phase-out (ODP tonnes)	2.43	0.43	0	2.86
	Funding (US \$)	226,000	45,200	0	271,200

(VI) PROJECT DATA			2010	2011	2012	2013	2014	2015	Total
Montreal Protocol consumption limits			n/a	n/a	n/a	247.40	247.40	222.66	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	n/a	247.40	247.40	222.66	n/a
Agreed Funding (US\$)	UNIDO	Project costs	4,908,849	0	0	80,000	20,000	0	5,008,849
		Support costs	368,164	0	0	6,000	1,500	0	375,664
	UNEP	Project costs	200,000	0	0	200,000	40,000	0	440,000
		Support costs	26,000	0	0	26,000	5,200	0	57,200
Funds approved by ExCom (US\$)	Project Costs		5,108,849	0	0	0	0	0	5,108,849
	Support Costs		394,164	0	0	0	0	0	394,164
Total funds requested for approval at this meeting (US\$)	Project Costs		0	0	0	280,000	0	0	280,000
	Support Costs		0	0	0	32,000	0	0	32,000

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Pakistan UNIDO, as the lead implementing agency, has submitted to the 70th meeting of the Executive Committee a request for funding for the second tranche of stage I of the HCFC phase-out management plan (HPMP) at a total cost of US \$312,000, consisting of US \$80,000, plus agency support costs of US \$6,000 for UNIDO, and US \$200,000, plus agency support costs of US \$26,000 for UNEP. The submission includes a progress report on the implementation of the first tranche of the HPMP together with the tranche implementation plan for 2013 and 2014.

Background

2. The HPMP for Pakistan was approved by the Executive Committee at its 62nd meeting, to reduce HCFC consumption by 10 per cent of the baseline by the end of 2014. The total funding for stage I of the HPMP amounted to US \$5,881,713 (i.e., US \$5,008,849, plus agency support costs of US \$375,664 for UNIDO, and US \$440,000, plus agency support costs of US \$57,200 for UNEP), which included US \$4,840,849, plus agency support costs of US \$363,064 for UNIDO approved at the 60th meeting to phase out of 71.7 ODP tonnes of HCFC-141b used in the manufacture of domestic and commercial refrigerators by five enterprises. Also at its 62nd meeting, the Executive Committee approved US \$299,100 (US \$68,000, plus agency support costs of US \$5,100 for UNIDO, and US \$200,000, plus agency support costs of US \$26,000 for UNEP) for implementation of the first tranche of stage I of the HPMP.

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

3. Following the approval of the HPMP, the Government of Pakistan reviewed the legal framework to incorporate additional control measures for HCFCs, *inter alia*, the establishment of an HCFC and HCFC-blend sales system; a ban on the import of HCFC-based products and equipment (not yet enforced); higher duties on imports of HCFCs and HCFC-based equipment; a ban on the establishment of new enterprises manufacturing HCFC-based refrigeration and/or air-conditioning equipment, or using HCFCs as foam blowing agents; a ban on the release of HCFCs and HCFC-blends during servicing of equipment.

4. Implementation of the project approved at the 60th meeting for the conversion of the five enterprises (URIL Hyderabad, Dawlance Karachi, HNR Lahore, Varioline Lahore and Shadman Karachi) manufacturing domestic and commercial refrigerators, is almost completed. The equipment has been installed, tested and commissioned except for Shadam, which will be completed by September 2013. Destruction of the baseline equipment will be done in October 2013. It is expected that 84.8 ODP tonnes of HCFC-141b will be phased out, i.e., 13.1 ODP tonnes more than at the time the project was approved (due to increased production at the enterprise level). Counterpart funding (US \$940,000 including US \$420,000 for technology upgrade) was provided by all enterprises for *inter alia* civil works related to underground cyclopentane storage tanks and premix station; piping, support and accessories; ventilating ducts; electric proofing of equipment and systems; and nitrogen supply system.

5. With regard to the refrigeration servicing sector, the following activities were implemented: enforcement of the HCFC import licensing system effective 1 January 2013; training of 30 master trainers from Punjab and Sindh Technical Education and Vocational Training Authority, and over 120 refrigeration service technicians and 35 custom officers in association with the Federal Board of Revenue and the Directorate General Training and Research; and implementation of awareness programmes. Six sets of tools and equipment (including ODS identification kits, leak detectors, two-stage vacuum pumps, and cylinders) have been procured for the training programmes.

6. Additional activities have been coordinated with the international industry-driven voluntary partnership Refrigerants Naturally. Specifically, Refrigerants Naturally partners have voluntarily decided

to convert from HFC-134a used in commercial refrigeration equipment to natural refrigerants, mainly hydrocarbon. Also, Pakistan is participating in the regional programme on barrier removal for cost-effective development and implementation of energy efficiency standards and labelling, being implemented by UNDP. This programme would need to be broadened to synergize ODS reduction and enhanced energy efficiency with additional co-financing.

7. The National Ozone Cell is responsible for the overall implementation of stage I of the HPMP including coordination, assessment and monitoring. The monitoring procedures established include regular missions to the project site, continuous communication, regular updating of project implementation schedules after incorporating feedback from all stakeholders.

8. As of May 2013, of the total funding of US \$5,108,849 approved thus far, US \$4,878,363 had been disbursed. The balance of US \$230,486 will be disbursed in 2013.

Annual plans for the second tranche of the HPMP

9. The following activities will be implemented during 2013-2014: identification of additional regulatory measures for HCFC management and restricting the introduction of specific non-HCFC alternative technologies; establishment of a compulsory reporting system for registered industrial and commercial importers of HCFCs; reassessment of new technologies that could potentially be introduced during stage II of the HPMP; continuing with capacity building activities for refrigeration technicians including the development of a training curriculum in the training of an additional 400 technicians and development of a long-term certification programme for over 2,500 technicians; development of a training curriculum for HCFC trade control modules at the customs training centres and the training of 60 customs officers; continuing with awareness raising activities; and the monitoring and assessment of activities associated with the implementation of stage I of the HPMP.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Operational licensing system

10. In line with decision 63/17, confirmation has been received from the Government that an enforceable national system of licensing and quotas for HCFC imports and exports is in place and that the system is capable of ensuring compliance with the Montreal Protocol. The licensing system established by the Government includes imports of HCFC-141b and HCFC-22, which are the only HCFCs consumed in the country. The quota for 2013 has been allocated to all industrial and commercial importers based on their average imports in 2009 and 2010; quotas for future years will be established later (Table 1). Each importer has a specified amount of ODS that can be imported. Through the Ministry of Commerce and the Customs Department only authorized importers can import ODS as per their quota.

Table 1. Maximum allowable level of HCFC consumption from 2013 (ODP tonnes)

HCFC	2013*	2014**	2015**
HCFC-141b	123.1	125.1	103.5
HCFC-22	123.5	121.5	118.4
Total	246.6	246.6	221.9

(*) Established.

(**) Estimated

HCFC consumption

11. The HCFC baseline for compliance has been established at 247.4 ODP tonnes, based on the actual consumption reported under Article 7 of the Montreal Protocol for 2009 and 2010 as shown in

Table 2. The established baseline is 0.8 ODP tonnes higher than that of 246.6 ODP tonnes estimated at the time the HPMP for Pakistan was approved. The change in the HCFC baseline will not alter the funding level agreed in principle by the Executive Committee.

Table 2. HCFC consumption in Pakistan (2007-2011 Article 7, 2012 estimated)

HCFC	2007	2008	2009	2010	2011	2012*	Baseline
Metric tonnes							
HCFC-22	2,113.8	1,241.4	1,920.0	2,039.6	2,165.5	3,043.64	1,979.8
HCFC-141b	613.0	1,101.9	1,220.0	1,298.2	1,426.8	1,434.55	1,259.1
HCFC-142b	-	-	-	-	-	52.31	-
Total (mt)	2,726.8	2,343.3	3,140.0	3,337.8	3,592.3	4,530.5	3,238.9
ODP tonnes							
HCFC-22	116.3	68.3	105.6	112.2	119.1	167.4	108.9
HCFC-141b	67.4	121.2	134.2	142.8	156.9	157.8	138.5
HCFC-142b	-	-	-	-	-	3.4	-
Total (ODP tonnes)	183.7	189.5	239.8	255.0	276.1	328.6	247.4

(*) Estimated

Technical issues

12. With regard to the use of hydrocarbon-based refrigerants in the country, including the extent of retrofitting HCFC-22-based equipment, UNIDO explained that currently no retrofitting activities are being undertaken. Very recently Pak Elektron Ltd. (PEL) (a national enterprise manufacturing refrigerators and chest freezers that received assistance from the Multilateral Fund to convert from CFC-11 and CFC-12 to cyclopentane and HFC-134a, respectively) has used its own resources to replace the use of HFC-134a in the deep freezer production line with R-290 (based on a design by its German partner). Efforts are being undertaken to encourage the refrigeration industry to convert to natural refrigerants. UNIDO also pointed out that there are no regulations and codes in place allowing the use of hydrocarbon-based refrigeration and air-conditioning systems. A workshop was held in collaboration with UNEP in September 2012 to train 29 trainers and 195 service technicians on this matter.

13. UNIDO also informed that a project on the management and safe disposal of ODS banks by appliance replacement programme in Pakistan has been recently submitted to the Global Environment Facility (GEF), through which refrigerators will be replaced by energy-efficient ones, and the refrigerants contained in appliances will be recovered and properly disposed of.

14. The Secretariat notes that the import licensing and quota systems are operational and will enable the Government to reduce its HCFC consumption by 10 per cent of its baseline by 2015. The conversion of the five enterprises manufacturing domestic and commercial refrigerators, is almost completed, and has already resulted in the total phase-out of 84.9 ODP tonnes of HCFC-141b (i.e., 13.1 ODP tonnes above the consumption by the enterprises at the time the project was approved). The phase-out activities in the servicing sector under current implementation and those proposed in the second tranche of the HPMP will allow for further reduction in the consumption of HCFC-22 through the implementation of better service practices, including leakage controls.

Revision to the Agreement of the HPMP

15. The HPMP for Pakistan was approved prior to the establishment of the HCFC baseline for compliance. Accordingly, in approving the HPMP the Executive Committee requested the Secretariat to, *inter alia*, update Appendix 2-A ("The targets, and funding") to the Agreement with the figures for the maximum allowable consumption, and to notify the Committee of the resulting levels accordingly (decision 62/59(e)). Based on the data reported by the Government of Pakistan under Article 7 and its

revised phase-out schedule, the relevant paragraphs of the Agreement have been updated, and a new paragraph has been added to indicate that the updated Agreement supersedes that reached at the 62nd meeting, as shown in Annex I to this document. The full revised Agreement will be appended to the final report of the 70th meeting.

RECOMMENDATION

16. The Fund Secretariat recommends that the Executive Committee:

- (a) Takes note of the progress report on the implementation of the first tranche of stage I of the HCFC phase-out management plan (HPMP) for Pakistan;
- (b) Notes that the Fund Secretariat had updated paragraph 1, Appendices 1-A and 2-A of the Agreement between the Government of Pakistan and the Executive Committee based on the established HCFC baseline for compliance, and a new paragraph 16 had been added to indicate that the updated Agreement superseded the Agreement that reached at the 62nd meeting, as contained in Annex I to the present document; and
- (c) Further notes that the revised starting point for sustained aggregate reduction in HCFC consumption was 247.4 ODP tonnes, calculated using consumption of 239.8 ODP tonnes and 255.0 ODP tonnes reported for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol.

17. The Fund Secretariat further recommends blanket approval of the second tranche of stage I of the HPMP for Pakistan, and the corresponding 2013 to 2014 tranche implementation plans, with associated support costs at the funding level as shown in the table below:

	Project Title	Project Funding (US \$)	Support Cost (US \$)	Implementing Agency
(a)	HCFC phase-out management plan (stage I, second tranche)	80,000	6,000	UNIDO
(b)	HCFC phase-out management plan (stage I, second tranche)	200,000	26,000	UNEP

Annex I

TEXT TO BE INCLUDED IN THE UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF PAKISTAN AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS

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

1. This Agreement represents the understanding of the Government of Pakistan (the “Country”) and the Executive Committee with respect to the reduction of controlled use of the ozone depleting substances (ODS) set out in Appendix 1 A (“The Substances”) prior to 1 January 2015 in compliance with Montreal Protocol schedules to a sustained level of **222.66** ODP tonnes representing the maximum consumption allowed for 2015 under the Montreal Protocol reduction schedule.

16. This updated Agreement supersedes the Agreement reached between the Government of Pakistan and the Executive Committee at the 62nd meeting of the Executive Committee.

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	108.90
HCFC-141b	C	I	138.50
Total			247.40

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2010	2011	2012	2013	2014	2015	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	n/a	247.40	247.40	222.66	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	n/a	n/a	247.40	247.40	222.66	n/a
2.1	Lead IA (UNIDO) agreed funding (US \$)	4,908,849*			80,000	20,000		5,008,849
2.2	Support costs for Lead IA (US \$)	368,164*			6,000	1,500		375,664
2.3	Cooperating IA (UNEP) agreed funding (US \$)	200,000			200,000	40,000		440,000
2.4	Support costs for Cooperating IA (US \$)	26,000			26,000	5,200		57,200
3.1	Total agreed funding (US \$)	5,108,849			280,000	60,000		5,448,849
3.2	Total support cost	394,164			32,000	6,700		432,864
3.3	Total agreed costs (US \$)	5,503,013			312,000	66,700		5,881,713
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)							7.4
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)							0
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)							101.5
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)							0
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)							71.7
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)							66.8

* US \$4,840,849 and agency support costs of US \$363,064 approved at the 60th Meeting.
