



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/74/41
16 April 2015

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-fourth Meeting
Montreal, 18-22 May 2015

PROJECT PROPOSAL: OMAN

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

Phase-out

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

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Oman

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (stage I)	UNEP, UNIDO (lead)	65 th	10 per cent by 2015

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2014	20.37 (ODP tonnes)
--	------------	--------------------

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2014	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123					0.0				0.0
HCFC-124									
HCFC-141b					2.1				2.1
HCFC-141b in Imported Pre-blended Polyol		4.4							4.4
HCFC-142b		0.7							0.7
HCFC-22		0.4			17.1				17.5

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	31.5	Starting point for sustained aggregate reductions:	32.57
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	6.79	Remaining:	25.78

(V) BUSINESS PLAN		2015	Total
UNIDO	ODS phase-out (ODP tonnes)	0.6	0.6
	Funding (US \$)	37,625	37,625
UNEP	ODS phase-out (ODP tonnes)	0.3	0.3
	Funding (US \$)	22,600	22,600

(VI) PROJECT DATA			2011	2012	2013	2014	2015	Total
Montreal Protocol consumption limits			n/a	n/a	31.47	31.47	28.32	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	31.47	31.47	28.32	n/a
Agreed funding (US \$)	UNEP	Project costs	65,000	0	0	0	20,000	85,000
		Support costs	8,450	0	0	0	2,600	11,050
	UNIDO	Project costs	314,120	0	0	0	35,000	349,120
		Support costs	23,559	0	0	0	2,625	26,184
Funds approved by ExCom (US \$)		Project costs	379,120	0	0	0	0.0	379,120
		Support costs	32,009	0	0	0	0.0	32,009
Total funds requested for approval at this meeting (US \$)		Project costs					55,000	55,000
		Support costs					5,225	5,225

Secretariat's recommendation:	Blanket approval
--------------------------------------	------------------

PROJECT DESCRIPTION

1. On behalf of the Government of Oman, UNIDO as the lead implementing agency, has submitted to the 74th meeting a request for funding for the second and final tranche of stage I of the HCFC phase-out management plan (HPMP), at a total cost of US \$60,225, consisting of US \$35,000, plus agency support costs of US \$2,625 for UNIDO, and US \$20,000, plus agency support costs of US \$2,600 for UNEP. The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption and the tranche implementation plan for 2015 to 2016.

Report on HCFC consumption

HCFC consumption

2. The Government of Oman reported a consumption of 20.37 ODP tonnes of HCFC in 2014. The 2010-2014 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Oman (2010-2014 Article 7 data)

HCFC	2010	2011	2012	2013	2014	Baseline
Metric tonnes						
HCFC-22	535.10	597.86	768.10	393.49	318.9	537.57
HCFC-123	0.00	0.36	0.00	6.75	2.0	-
HCFC-141b	17.30	17.56	68.73	23.29	18.8	10.15
HCFC-142b	13.30	0.00	79.20	69.67	11.2	12.05
Total HCFCs (mt)	565.7	615.78	916.03	493.2	350.9	559.77
HCFC-141b in imported pre-blended polyols	21.55	22.82	67.87	44.30	39.91	10.00*
ODP tonnes						
HCFC-22	29.43	32.88	42.25	21.64	17.54	29.57
HCFC-123	0.00	0.01	0.00	0.14	0.4	-
HCFC-141b	1.90	1.93	7.56	2.56	2.07	1.12
HCFC-142b	0.86	0.00	5.15	4.53	0.73	0.78
Total HCFCs (ODP tonnes)	32.19	34.82	54.96	28.87	20.37	31.47
HCFC-141b in imported pre-blended polyols	2.37	2.51	7.47	4.87	4.39	1.1*

*Starting point as indicated in the Agreement between the Executive Committee and the Government of Oman

3. The sharp increase in HCFC consumption in 2012 was for stockpiles in view of the 2013 freeze. However in 2013, consumption reduced to 28.87 ODP tonnes, which is 8.34 per cent below the consumption baseline of 31.5 ODP tonnes. In 2014, the reported HCFC consumption of 20.37 ODP tonnes was already 7.95 ODP tonnes below the maximum allowed consumption for 2015.

Verification report

4. 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 for 2014 was 20.33 ODP tonnes. The verification concluded that Oman is committed to HCFC phase-out.

Country programme (CP) implementation report

5. The Government of Oman reported sector HCFC consumption data under CP implementation report which is consistent with the data reported under Article 7. The 2014 CP date report will be submitted in May 2015.

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

Legal framework

6. The Government updated regulations for the protection of the ozone layer by ministerial decision 107/2013 to conform to the obligations of the Montreal Protocol, and to comply with the requirements under the unified Gulf Co-operation Council (GCC) regulations. The Government has also established and operational a licensing and quota system to control and monitor the trade of all ODS including HCFCs.

Foam sector

7. The HPMP included one investment project for the replacement of 1.10 ODP tonnes of HCFC-141b use as a foam blowing agent for the production of water heaters by water-blown technology at National Heaters Industries Co. The foaming machine was delivered and installed in 2014 and foam production based on water-blown technology also started in 2014.

8. As included in stage I of the HPMP, a technical assistance programme for phasing out HCFCs used by three additional foam enterprises was implemented. Based on this assistance, two of the enterprises, namely “Al Khalawi Engineering and Steel manufacturing Factory LLC”, and “Mustafa and Kamal Ashraf Trading”, selected water-blown technology for replacing HCFC-141b in the manufacturing of discontinuous sandwich panels. The other enterprise, “Al Khaleej Insulation Co.”, selected CO₂/ethanol technology for a mixture of HCFC-22/HCFC-142b used for the production of extruded polystyrene (XPS) foam. This replacement requires changes to the factory layout and installation of safety systems to address flammability issues related to the alternative technology.

Refrigeration servicing sector

9. The following activities had been implemented:

- (a) Establishment of the national ozone committee (NOC) and the legal and technical task force, to oversee the implementation of the Montreal Protocol related activities in the country;
- (b) Design of a web-based licensing system for the import/export of HCFCs and HCFC-based equipment; however, completion was delayed due to the plan of the Ministry of Environment and Climate Affairs (MECA) to integrate this system into a more comprehensive national licensing system for all chemicals;
- (c) Review and update of the curricula of refrigeration and air-conditioning (RAC) education and training programmes of technical college, institutions and schools to include the latest developments related to HCFCs phase-out. Finalization of the requirements for setting up a certification system for RAC technicians including the review of the existing vocational standards; organize a study tour to the Philippines to exchange experiences on certification systems and a workshop for 20 trainers on certification and good practices;
- (d) Drafting and finalisation of the national codes of good practice for the different RAC servicing professions in close consultation with the relevant bodies;
- (e) Workshop for the fisheries sector on available alternative refrigerants and a follow-up workshop for decision-makers;

- (f) Visits to potential reclaim centres and the first meeting of the Ozone Steering Group; and
- (g) Purchase and delivery of the equipment of the refrigeration reclaim centre and scheme.

Project implementation and monitoring unit (PMU)

10. The national ozone unit (NOU) established within the MECA, co-ordinated all the HPMP activities implementation in cooperation with UNIDO. A meeting was organized to assess the progress of stage I and plan preparatory activities for stage II of the HPMP.

Level of fund disbursement

11. As of March 2015, of the US \$379,120 so far approved (US \$314,120 for UNIDO and US \$65,000 for UNEP), US \$186,544 had been disbursed (US \$169,145 for UNIDO and US \$17,399 for UNEP) representing over 49 per cent of the total funds approved. The balance of US \$192,576 will be disbursed in 2015. The submission of stage II of the HPMP is planned for the 75th meeting.

Implementation plan for the second tranche of the HPMP

12. The Government of Oman will implement the following activities:
- (a) Policy and regulations update: organizing meetings of the NOC and its two taskforces; undertaking actions towards the adoption of the national code of good practice for the RAC servicing sector and building the capacities of institutions to disseminate the refrigeration good practice concepts among technicians; completing the development and adoption of a compulsory certification scheme for all RAC technicians and building national capacities for its enforcement; and setting up and implementing an ODS e-licensing system including training (UNEP) (US \$20,000);
 - (b) Technical assistance in the servicing sector: developing further the national guidelines to promote the establishment of refrigerants reclamation centres and visiting similar centres in other countries; and providing technical assistance and training on availability of alternative technologies in the fisheries industry (UNIDO) (US \$27,000); and
 - (c) Project implementation, monitoring and verification: the NOU will be overseeing the implementation of the HPMP in cooperation with UNIDO (UNIDO) (US \$8,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption

13. The Government of Oman reported HCFC consumption data under Article 7 of the Montreal Protocol for 2013 and 2014 of 28.87 ODP tonnes and 20.37 ODP tonnes, respectively, which are below the maximum allowable consumption of 31.47 ODP tonnes.

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

Legal framework

14. 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 HCFC import quota for 2015 has been established at 27 ODP tonnes. For subsequent years, the annual quota will be established within the levels allowed under the Montreal Protocol.

Manufacturing sector

15. Although the technical assistance programme for the three foam enterprises was completed, UNIDO reported that these enterprises indicated that the feasibility of investing with their own resources for the conversion of the manufacturing processes was subject to alternative price trends and was dependant on whether their competitors were also converting to alternative technologies.

16. During the preparation of stage I of the HPMP, the Government of Oman committed to regulate imports of HCFC-141b contained in imported pre-blended polyols, and proposed to establish an import ban by January 2015. However, the Government has been unable to issue the ban as there are still some foam enterprises using low amounts of HCFCs; accordingly, the Government will assess the situation based on a survey that it will undertake.

Refrigeration servicing sector

17. The HPMP action plan as originally approved did not include targets for training customs officers and technicians. However, UNIDO advised that the training carried out under the first tranche aimed at supporting the implementation of the certification scheme for technicians. Moreover, additional training may be considered after the adoption of the national codes of good practice for the different RAC servicing professionals.

18. The Government of Oman considered the establishment of two reclamation centres as a necessity. On that basis, an international refrigeration expert was recruited to undertake site visits to potential reclamation centres. Given the fact that the recovery and recycling scheme experience from the phase-out of CFCs was not successful and that only one of the five enterprises visited by the expert/NOU expressed its interest for refrigerants reclamation, the Secretariat queried whether the establishment of reclamation centres was premature. UNIDO explained that the availability of good quality refrigerant requires the establishment of at least one reclamation centre which will serve as a pilot project; the second reclamation centre would only be established during stage II based on lessons learned from the operation of the first centre. The equipment of the established refrigeration reclaim centre was delivered in Oman in 2014 and training of the reclamation centre staff was provided during the first quarter of 2015.

19. Upon a request for information on whether retrofits to hydrocarbon are being promoted by the HPMP or taking place outside of the HPMP, UNIDO indicated that there is no promotion of any retrofitting at this stage and that the regulations and codes would be developed under stage II, if retrofits of HCFC-based RAC equipment to flammable or toxic refrigerants is considered.

Conclusion

20. The Secretariat noted that the country's import licensing and quota system is operational and will enable HCFC consumption reductions in line with the Montreal Protocol's phase-out schedule, and that the foam project at National Heaters Industries Co. was completed with the phase-out of 1.10 ODP tonnes. The HPMP is progressing and the consumption in 2014 was 7.95 ODP tonnes below the allowable consumption under the Montreal Protocol for 2015. The activities implemented under the first tranche and those planned under the second tranche, including updating the policies and regulations and providing assistance to the foam and servicing sectors, will further strengthen the servicing sector and ensure the long-term sustainability of the activities proposed in stage I of the HPMP.

RECOMMENDATION

21. 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 of (HPMP) for Oman;
- (b) Requests UNIDO to continue assisting the Government of Oman in introducing a ban on HCFC-141b contained in imported pre-blended polyols as early as possible, and to report back to the Executive Committee in the annual progress and financial reporting document; and
- (c) Requests the Government of Oman, UNIDO and UNEP to submit the project completion report to the first meeting of the Executive Committee in 2017.

22. The Fund Secretariat further recommends blanket approval of the second and final tranche of stage I of the HPMP for Oman, and the corresponding 2015-2016 tranche implementation plan, at the funding levels 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)	35,000	2,625	UNIDO
(b)	HCFC phase-out management plan (stage I, second tranche)	20,000	2,600	UNEP
