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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-fifth Meeting
Montreal, 16-20 November 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 II, first tranche) UNIDO and UNEP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
Oman

(I) PROJECT TITLE	AGENCY
HCFC phase out plan (Stage II)	UNEP, UNIDO (lead)

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2014	20.37 (ODP tonnes)
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(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-22		0.4			17.1				17.5
HCFC-123					0.0				0.0
HCFC-141b					2.1				2.1
HCFC-142b		0.7							0.7
HCFC-141b in imported pre-blended polyol		4.4							4.4

(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	2016	2017	2018	2019	2020	After 2020	Total
UNIDO	ODS phase-out (ODP tonnes)	0	4.4	2.8	2.8	0	1.1	0	11.1
	Funding (US \$)	0	213,000	133,000	241,000	0	96,000	0	683,000
UNEP	ODS phase-out (ODP tonnes)	0	0	0	1.4	0.5	0	22.0	23.9
	Funding (US \$)	0	92,000	0	129,000	46,000	0	450,000	717,000

(VI) PROJECT DATA			2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			28.32	28.32	28.32	28.32	28.32	20.46	n/a
Maximum allowable consumption (ODP tonnes)			28.32	28.32	28.32	28.32	20.46	20.46	n/a
Project costs requested in principle (US \$)	UNIDO	Project costs	215,000	0	0	50,000	0	20,000	285,000
		Support costs	15,050	0	0	3,500	0	1,400	19,950
	UNEP	Project costs	83,500	0	0	59,500	0	57,000	200,000
		Support costs	10,855	0	0	7,735	0	7,410	26,000
Total project costs requested in principle (US \$)			298,500	0	0	109,500	0	77,000	485,000
Total support costs requested in principle (US \$)			25,905	0	0	11,235	0	8,810	45,950
Total funds requested in principle (US \$)			324,405	0	0	120,735	0	85,810	530,950

(VII) Request for funding for the first tranche (2015)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNIDO	215,000	15,050
UNEP	83,500	10,855

Funding request:	Approval of funding for the first tranche (2015) as indicated above
Secretariat's recommendation:	For individual consideration

PROJECT DESCRIPTION

1. On behalf of the Government of Oman, UNIDO, as the lead implementing agency, has submitted to the 75th meeting stage II of the HCFC phase-out management plan (HPMP) at a total cost of US \$530,950, consisting of US \$285,000, plus agency support costs of US \$19,950 for UNIDO, and US \$200,000, plus agency support costs of US \$26,000 for UNEP as originally submitted. The implementation of stage II of the HPMP will phase out 5.32 ODP tonnes of HCFCs resulting in a 35 per cent reduction by 2020.

2. UNIDO has also submitted a request for funding the first tranche of stage II of the HPMP at the amount of US \$324,405, consisting of US \$215,000, plus agency support costs of US \$15,050 for UNIDO, and US \$83,500, plus agency support costs of US \$10,855 for UNEP as originally submitted, together with a progress report on the implementation of stage I of the HPMP¹.

HCFC consumption

3. 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	318.88	537.57
HCFC-123	0.00	0.36	0.00	6.75	2.0	-
HCFC-141b	17.30	17.56	68.73	23.29	18.78	10.15
HCFC-142b	13.30	0.00	79.20	69.67	11.16	12.05
Total HCFCs (mt)	565.7	615.78	916.03	493.2	350.82	559.77
HCFC-141b in imported pre-blended polyols	21.50	22.79	67.87	44.31	39.92	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	0.04	-
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 for stage I

4. The sharp increase in HCFC consumption in 2012 was for stockpiles in view of the 2013 freeze. However, consumption was reduced by 8.3 per cent from the baseline in 2013 and 35.2 per cent in 2014. The 2014 consumption is already 28 per cent below the maximum allowable consumption for 2015. The use of HCFC-22 and HCFC-142b to produce extruded polystyrene (XPS) foam and bulk HCFC-141b in the polyurethane (PU) foam manufacturing sector has been fully phased out. The remaining consumption of HCFC-22 is used for servicing small air-conditioning units by service technicians. The only consumption of HCFC-141b in the country is for flushing refrigeration circuits and in imported pre-blended polyols consumed by two non-eligible foam enterprises. Small amounts of HCFC-123 are imported sporadically for servicing chillers. There is no remaining consumption of HCFC-141b and HCFC-123 eligible for funding.

¹ Stage I of the HPMP was approved at the 65th meeting to meet the 10 per cent reduction of HCFC consumption by 2015.

Legal framework

5. The Ministry of Environment and Climate Affairs is responsible for the implementation of the Montreal Protocol. The national ozone unit (NOU) was established within the Ministry to allocate quotas, operate the permit system and monitor the implementation of the ODS phase-out activities under the Multilateral Fund.

6. The country has an operational licensing and quota system for HCFCs import control. There are 23 importers registered at the Ministry of Environment and Climate Affairs. In addition, two foam enterprises import HCFC-141b in pre-blended polyols, for which the quota system does not apply. Penalties are established for illegal import of ODS, ODS containing-products and equipment.

7. The Government has updated ODS regulations by the ministerial decree 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 ODS e-licensing system has been developed and will be operational by the end of 2015. The ban on import of HCFC-141b in pre-blended polyols by January 2015, proposed by the Government of Oman during the preparation of stage I of the HPMP, has not yet been established.

Progress report on the implementation of stage I of the HPMP

Foam manufacturing sector

8. *Eligible enterprise:* “National Heaters Industry Company” using 1.1 ODP tonnes of HCFC-141b contained in imported pre-blended polyols was fully converted to water blown technology with funding from the Multilateral Fund. Training and equipment was provided during the implementation of the project.

9. *Technical Assistance:* “Al Khaleej Insulation Co LLC” using a blend of HCFC-22 and HCFC-142b to manufacture XPS foam initially planned to convert to CO₂ and ethanol but opted for HFC-152a and R600a. The project was completed in 2015 with the phase-out of 1.19 ODP tonnes of HCFC-22 and 0.79 ODP tonnes of HCFC-142b. Two PU foam sandwich panels manufacturing enterprises, “Al Khalawi Engineering and Steel Manufacturing Factory LLC” and “Mustafa and Kamal Ashraf Trading Company LLC”, were non-eligible for funding from the Multilateral Fund and were provided advisory support. Both enterprises continue using HCFC-141b contained in imported pre-blended polyols.

Servicing sector

10. National vocational curricula were updated to reflect recent developments in HCFCs, alternatives and new technologies. National codes on good practices were drafted and are being finalized in consultation with stakeholders. The draft outline for the certification scheme for refrigeration and air-conditioning (RAC) technicians was developed and will be adopted by the Ministry of Manpower by the end of 2015.

11. A workshop for the fishing industry on HCFC alternatives and a follow-up workshop for decision-makers were conducted. A refrigerant reclamation centre was established with a set of equipment and training delivered; the centre is now operational.

Level of fund disbursement under stage I

12. As of August 2015, of the US \$434,120 approved for stage I (US \$349,120 for UNIDO and US \$85,000 for UNEP), US \$394,368 (91 per cent) had been disbursed. The balance of US \$39,752 will

be disbursed by mid-2016 and the financial completion report for stage I will be submitted by the end of 2016.

HCFC phase-out strategy and proposed activities

13. The remaining consumption eligible for funding in Oman is 25.78 ODP tonnes of HCFC-22 in the RAC servicing sector. The Government of Oman proposes a reduction of 5.32 ODP tonnes of HCFC-22 and commits to meet the 35 per cent reduction of baseline consumption by 1 January 2020.

14. The proposed reduction would be achieved through good practices to reduce leakage in service operations, and recovery, recycling and reclamation activities, combined with quota system enforcement and an awareness campaign for end-users and public. The country still imports a significant amount of HCFC-141b-based pre-blended polyols (4.39 ODP tonnes in 2014) for two non-eligible enterprises, that will be converted with their own resources. Technical assistance might be considered to advise on non-HCFC blowing technology in light of development of new alternatives such as HFO and HCFOs.

Regulatory actions

15. The following policy and regulatory measures will be implemented:

- (a) Ban on import of bulk HCFC-141b by 31 December 2016;
- (b) Ban on import of HCFC-141b-based pre-blended polyols by 31 December 2017;
- (c) Ban on the use and import of refrigerants in disposable containers by 1 January 2020;
- (d) Ban on venting of refrigerants into the atmosphere during servicing by 1 January 2020;
- (e) Establishment of mandatory refrigerants recovery and recycling by 1 January 2020;
- (f) Establishment of mandatory quarterly reporting on recovered, recycled and reused refrigerants and stock of unusable refrigerants by 1 January 2020; and
- (g) Licensing of all entities (importers, distributors, retailers, service workshops) handling ODS in the RAC sector by 1 January 2020.

16. In addition, the Government will consider development of mandatory leak detection of all controlled substances in RAC systems with initial charge greater than 3 kg, as well as a log book to record all leaks and repairs.

17. Refrigerant identifiers will be purchased for customs and environment inspectors and training will be provided on ODS identification and prevention of illegal import. National vocational curricula and codes of practice will be further updated to include latest developments in the servicing sector.

Activities in the servicing sector

18. Stage II will provide training to 20 national trainers and about 1,000 RAC technicians (out of 8,833 countrywide). Nine training institutes will be provided with equipment (e.g. recovery unit and service tools) to facilitate training. The effectiveness of the certification scheme established under stage I will be further evaluated.

19. The recovery and recycling network will be strengthened through the supply of additional recovery and recycling units, training on the use of equipment and two workshops on the reclamation

supply chain. The effectiveness of the reclamation centre will be already in place and the establishment of a second one will be considered.

20. Two workshops will be organized to assess emerging technologies and their suitability for the use in Oman and will target different RAC subsectors, including large end-users and fisheries.

Project implementation and monitoring unit

21. The NOU will continue to support the implementation of stage II of the HPMP in cooperation with UNIDO and UNEP, and will liaise with stakeholders, conduct visits to service workshops and the reclamation centre and monitor the recovery, recycling and reclamation scheme.

Total cost of stage II of the HPMP

22. The total cost of the activities proposed in stage II of the HPMP amounts to US \$485,000 (excluding agency support costs). Detailed activities and cost breakdown are shown in Table 2.

Table 2. Overall cost of stage II of the HPMP for Oman

Description	Agency	Costs (US \$)
Policy and regulations update		
Operation of National Ozone Committee, legal and technical task forces	UNEP	9,000
Regulation and related standards update	UNEP	6,000
Operation of ODS e-licensing system	UNEP	6,000
Awareness campaign	UNEP	20,000
Training on ODS identification	UNEP	15,000
Provision of identifiers to environment inspectors and customs officers	UNIDO	25,000
Technical assistance to the servicing sector		
National vocational curricula upgrade	UNEP	9,000
Implementation and review of the certification scheme	UNEP	10,000
Update of national codes of good practice	UNEP	10,000
Provision of the equipment to training institutes	UNIDO	80,000
Training of technicians	UNEP	115,000
Technical assistance to large end-users and fisheries sector	UNIDO	25,000
Strengthening the recovery, recycling and reclamation network	UNIDO	125,000
Implementation and monitoring		
Monitoring and verification of HPMP	UNIDO	30,000
Total funding		485,000

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

23. The Secretariat reviewed stage II of the HPMP in Oman in light of the existing guidelines of the Executive Committee, the criteria for funding HCFC phase-out in the consumption sector for stage II of the HPMPs (decision 74/50), and the 2015-2017 business plan of the Multilateral Fund.

Progress report on the implementation of stage I of the HPMP

24. The Secretariat noted with concern that the ban on import of HCFC-141b in pre-blended polyols from January 2015, as agreed during stage I preparation, was not established and that two non-eligible enterprises in PU foam sector still import HCFC-141b-based pre-blended polyols and have increased that use during the implementation of stage I. UNIDO clarified that there are no immediate low-global warming potential (GWP) alternatives currently available and economically feasible for adoption in the

sector, given the manufacturing and operating conditions in countries with high-ambient temperatures. The only technically viable option would be HFC-245fa, which has a high-GWP and is relatively expensive. In addition, the enterprises are concerned about the import of HCFC-141b-based pre-blended polyols from neighbouring GCC countries, which could threaten the economic competitiveness of the enterprises. The Government therefore initially proposed to establish the ban on import of HCFC-141b-based pre-blended polyols by 2020.

25. The Secretariat stressed that the continued use of HCFC-141b contained in imported pre-blended polyols may disadvantage the national enterprises that converted to non-HCFC-141b technology and could favour an unconstrained growth of the use of those polyols by the two above-mentioned enterprises. In addition, a number of GCC countries have already undertaken steps to address their use of HCFC-141b in imported pre-blended polyols, in particular the Government of Saudi Arabia committed to ban import of HCFC-141b in bulk or contained in pre-blended polyols by 1 January 2018. Given the above discussion, the Government of Oman agreed to institute the ban on import of HCFC-141b in imported pre-blended polyols by the end of 2017 or earlier. This will allow the enterprises to convert to low-GWP technology in a sustainable manner, and the Government and UNIDO to identify and promote alternative blowing agents.

Report on HCFC consumption

26. The Secretariat drew attention to the fact that Oman's HCFC consumption in 2014 of 20.38 ODP tonnes was lower than the maximum allowable consumption proposed by the Government of Oman of 28.32 ODP tonnes for the years 2015-2018 and 20.46 ODP tonnes for 2019-2020. UNIDO clarified that the lower consumption in 2014 was due to large amounts of HCFCs imported in 2011 and 2012 as stocks, for use in subsequent years. As these stocks have been depleted, HCFC consumption is expected to grow to levels allowed under the Montreal Protocol.

27. In response to the Secretariat's request on measures to address consumption of bulk HCFC-141b and HCFC-123 (which is not eligible for funding from the Multilateral Fund), UNIDO clarified that the country plans to phase out HCFC-141b through training of technicians on alternative flushing practices and will institute a ban on import of bulk HCFC-141b by 31 December 2016. Regarding HCFC-123, it is used to meet servicing demand until retirement of the equipment and will be phased out in accordance with the Montreal Protocol schedule without assistance from the Multilateral Fund.

Proposed activities in stage II

Legal framework

28. The Secretariat noted that the majority of regulatory and policy measures that will be undertaken under stage II were foreseen to be implemented under stage I and requested UNIDO to clarify whether the Government of Oman has considered different activities. UNIDO indicated that during stage I the priority was given to the establishment of the regulatory and institutional framework to control ODS imports and adoption of the codes of practice and certification scheme for RAC technicians. Stage II will focus on the enforcement of the established regulations and implementation of the pending measures from stage I.

29. On the reasons for the request of identifiers in addition to those purchased during the implementation of the terminal phase-out management plan (TPMP), UNIDO clarified that the identifiers procured under the TPMP were used to identify CFC-12, HCFC-22 and HFC-134a and not capable of detecting refrigerants currently used in Oman.

Activities in the servicing sector

30. On the training of technicians, UNIDO indicated that the basic training will be provided to those who have not received training in stage I, will focus on newly adopted codes of practice and enable technicians to undertake the certification assessment.

31. The Secretariat noted the difficulties previously experienced with the implementation of training of non-Omani technicians, which represent more than 96 per cent of the technicians in the country due to the language barrier. UNIDO explained that it is planned to engage trainers that can conduct training in the language of technicians.

32. With regard to the potential non-recyclable refrigerants to be collected during reclamation activities, UNIDO clarified that there are no ODS destruction facilities in the country, that non-recyclable refrigerants will be collected at the reclamation centre and exported to a suitable facility abroad.

33. The Secretariat and UNIDO also discussed the technical assistance to the fisheries subsector. The initially planned retrofit incentive programme for fisheries was deferred due to the lack of low-GWP alternatives in the sector. Instead workshops will be organized and focus on low-GWP alternatives for on-site installations, such as cold rooms. While a shift in consumption from HCFC-141b to R-404A in the fisheries sector was discovered during stage I implementation, ammonia is seen as a potential alternative for certain applications. Regarding fishing vessels, low-GWP alternatives are currently unavailable as ammonia is only applicable for larger vessels; therefore technical assistance will be provided to address improved containment and maintenance for these applications, including compressor overhauls to minimize leaks.

34. The Secretariat agreed with the total cost of stage II of the HPMP as submitted in line with decision 74/50(b).

Impact on the climate

35. The proposed activities in stage II, which include introduction of better servicing practices, improved refrigerant management, technical assistance to various RAC sub-sectors and enforcement of HCFC import controls, will reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogramme of HCFC-22 not emitted due to better refrigeration practices results in a savings of approximately 1.8 CO₂-equivalent tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Oman, including efforts to improve servicing practices and enhance refrigerant recovery and reuse, indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere therefore resulting in benefits on the climate. However, at this time, a more accurate quantitative assessment on the impact on climate cannot be conducted. The impact might be established through an assessment of implementation reports by, *inter alia*, comparing the levels of refrigerants used annually from the commencement of the implementation of the HPMP, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22 based equipment being retrofitted.

Co-financing

36. Efforts were undertaken to identify ways of generating additional funding through climate change initiatives, including the clean development mechanism (CDM). However, there are no restrictions in place or planned to be enforced in Oman on the use of high-GWP HFCs and existing CDM methodologies are not applicable.

2015-2017 business plan of the Multilateral Fund

37. UNIDO and UNEP are requesting US \$485,000 plus support costs for implementation of stage II of the HPMP in Oman. The total value requested for the period 2015-2017 of US \$324,405 including support cost is within the total amount in business plan.

Draft Agreement

38. A draft Agreement between the Government of Oman and the Executive Committee for the phase-out of HCFCs in stage II of the HPMP is contained in Annex I to the present document.

RECOMMENDATION

39. The Executive Committee may wish to consider:

- (a) Noting:
 - (i) The progress report on the implementation of stage I of the HCFC phase-out management plan (HPMP) for Oman;
 - (ii) The commitment by the Government of Oman to ban imports of HCFC-141b in bulk and contained in imported pre-blended polyols no later than 1 January 2017 and 1 January 2018, respectively;
- (b) Approving in principle, stage II of the HPMP for Oman for the period 2015 to 2020 to reduce HCFC consumption by 35 per cent of its baseline in the amount of US \$530,950 consisting of US \$285,000, plus agency support costs of US \$19,950 for UNIDO and US \$200,000, plus agency support costs of US \$26,000 for UNEP;
- (c) Deducting 5.32 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of Oman and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage II of the HPMP contained in Annex I to the present document; and
- (e) Approving the first tranche of stage II of the HPMP for Oman, and the corresponding 2015-2017 tranche implementation plans, in the amount of US \$324,405, consisting of US \$215,000, plus agency support costs of US \$15,050 for UNIDO, and US \$83,500, plus agency support costs of US \$10,855 for UNEP, on the understanding that no further funding will be approved for the subsequent tranches of stage II of the HPMP for Oman until the ban on import of bulk HCFC-141b and HCFC-141b contained in pre-blended polyols is issued.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF OMAN 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

Purpose

1. This Agreement represents the understanding of the Government of Oman (the “Country”) and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (“The Substances”) to a sustained level of 20.46 ODP tonnes by 1 January 2020 in compliance with Montreal Protocol schedule.
2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in rows 4.1.3, 4.2.3, 4.3.3, and 4.4.3 (remaining consumption eligible for funding).
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (“Funding Approval Schedule”).
4. The Country agrees to implement this Agreement in accordance with the stage II of the HCFC phase-out management plan (HPMP) approved (“the Plan”). In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

Conditions for funding release

5. The Executive Committee will only provide the Funding in accordance with the Funding Approval Schedule when the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:
 - (a) That the Country has met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved;
 - (b) That the meeting of these Targets has been independently verified for all relevant years, unless the Executive Committee decided that such verification would not be required;
 - (c) That the Country had submitted a Tranche Implementation Report in the form of Appendix 4-A (“Format of Tranche Implementation Reports and Plans”) covering each previous calendar year; that it had achieved a significant level of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and

- (d) That the Country has submitted a Tranche Implementation Plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen, and
- (e) That, for tranches that are due on the year(s) after the date of completion of the previous stage of the HPMP (as defined in paragraph 14 of the Agreement associated to the previous stage), all tranches from the previous stage have been completed, remaining funds have been returned to the Multilateral Fund (as established in paragraph 7 of the Agreement associated to the previous stage) and the corresponding project completion reports have been submitted to the Executive Committee.

Monitoring

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (“Monitoring Institutions and Roles”) will monitor and report on implementation of the activities in the previous Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same appendix.

Flexibility in the reallocation of funds

7. The Executive Committee agrees that the Country may have the flexibility to reallocate part or all of the approved funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

- (a) Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
 - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
 - (ii) Changes which would modify any clause of this Agreement;
 - (iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches; and
 - (iv) Provision of funding for programmes or activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche;
- (b) Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the subsequent Tranche Implementation Report;
- (c) Should the Country decide during implementation of the Agreement to introduce an alternative technology other than that proposed in the Plan, this would require approval by the Executive Committee as part of a Tranche Implementation Plan or the revision of the approved plan. Any submission of such a request for change in technology would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable. The Country agrees that potential savings related to the change of technology would decrease the overall funding

level under this Agreement accordingly;

- (d) Any enterprise to be converted to non-HCFC technology included in the Plan and that would be found to be ineligible under the policies of the Multilateral Fund (i.e., due to foreign ownership or establishment post the 21 September 2007 cut-off date), would not receive financial assistance. This information would be reported as part of the Tranche Implementation Plan;
- (e) The Country commits to examining the possibility of using pre-blended systems with low-global warming potential blowing agents instead of blending them in-house, for those foam enterprises covered under the Plan, should this be technically viable, economically feasible and acceptable to the enterprises; and
- (f) Any remaining funds held by the bilateral or implementing agencies or the country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

Considerations for the refrigeration servicing sector

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sub-sector included in the Plan, in particular:

- (a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation;
- (b) The Country would take into consideration the need to minimize adverse climate impact when phasing out HCFC in the refrigeration servicing sector; and
- (c) The Country would be encouraged to consider, as needed and feasible, the development of regulations and codes of practice; the adoption of standards for the safe introduction of flammable and/or toxic refrigerants; the implementation of measures to limit the import of HCFC-based equipment and to facilitate the introduction of energy-efficient and climate-friendly alternatives; and implementation of activities in the refrigeration servicing sector on training of technicians and introduction of good practices such as the safe handling of refrigerants, containment, recovery and recycling and reuse of recovered refrigerants rather than retrofitting.

Bilateral and implementing agencies

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNIDO has agreed to be the lead implementing agency (the "Lead IA") and UNEP has agreed to be the cooperating implementing agency (the "Cooperating IA") under the lead of the Lead IA in respect of the Country's activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of the Lead IA and/or Cooperating IA taking part in this Agreement.

10. The Lead IA will be responsible for ensuring co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). The Cooperating IA will support the Lead IA by implementing the Plan under the overall co-ordination of the Lead IA. The roles of the Lead IA and Cooperating IA are contained in Appendix 6-A and Appendix 6-B, respectively. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

Non-compliance with the Agreement

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A (“Reductions in Funding for Failure to Comply”) in respect of each ODP kilogram of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement, and take related decisions. Once decisions are taken, the specific case of not compliance with this Agreement will not be an impediment for the provision of funding for future tranches as per paragraph 5 above.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decisions that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, and the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to the information necessary to verify compliance with this Agreement.

Date of completion

14. The completion of the Plan and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion of the Plan will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per sub-paragraphs 1(a), 1(b), 1(d), and 1(e) of Appendix 4-A will continue until the time of the completion of the Plan unless otherwise specified by the Executive Committee.

Validity

15. All of the conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	29.57
HCFC-141b	C	I	1.11
HCFC-142b	C	I	0.79
Sub-total			31.47
HCFC-141b contained in imported pre-blended polyols	C	I	1.1
Total	C	I	32.57

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2015	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	28.32	28.32	28.32	28.32	28.32	20.46	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	28.32	28.32	28.32	28.32	20.46	20.46	n/a
2.1	Lead IA (UNIDO) agreed funding (US \$)	215,000	-	-	50,000	-	20,000	285,000
2.2	Support costs for Lead IA (US \$)	15,050	-	-	3,500	-	1,400	19,950
2.3	Cooperating IA(UNEP) agreed funding (US \$)	83,500	-	-	59,500	-	57,000	200,000
2.4	Support costs for Cooperating IA (US \$)	10,855	-	-	7,735	-	7,410	26,000
3.1	Total agreed funding (US \$)	298,500	-	-	109,500	-	77,000	485,000
3.2	Total support costs (US \$)	25,905	-	-	11,235	-	8,810	45,950
3.3	Total agreed costs (US \$)	324,405	-	-	120,735	-	85,810	530,950
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)							5.32
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)							3.79
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)							20.46
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)							0.00
4.2.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)							1.11
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)							0.00
4.3.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)							0.00
4.3.2	Phase-out of HCFC-142b to be achieved in the previous stage (ODP tonnes)							0.79
4.3.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)							0.00
4.4.1	Total phase-out of HCFC-141b contained in imported pre-blended polyols agreed to be achieved under this Agreement (ODP tonnes)							0.00
4.4.2	Phase-out of HCFC-141b contained in imported pre-blended polyols to be achieved in the previous stage (ODP tonnes)							1.1
4.4.3	Remaining eligible consumption for HCFC-141b contained in imported pre-blended polyols (ODP tonnes)							0.00

*Date of completion of stage I as per stage I Agreement: 31 December 2016

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the second meeting of the year specified in Appendix 2-A.

APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS

1. The submission of the Tranche Implementation Report and Plans for each tranche request will consist of five parts:

- (a) A narrative report, with data provided by tranche, describing the progress achieved since the previous report, reflecting the situation of the Country in regard to phase out of the Substances, how the different activities contribute to it, and how they relate to each other. The report should include the amount of ODS phased out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Tranche Implementation Plan(s), such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes;
- (b) An independent verification report of the Plan results and the consumption of the Substances, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
- (c) A written description of the activities to be undertaken during the period covered by the requested tranche, highlighting implementation milestones, the time of completion and the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the plan will be provided by calendar year. The description should also include a reference to the overall Plan and progress achieved, as well as any possible changes to the overall Plan that are foreseen. The description should also specify and explain in detail such changes to the overall plan. This description of future activities can be submitted as a part of the same document as the narrative report under sub-paragraph (b) above;
- (d) A set of quantitative information for all Tranche Implementation Reports and Plans, submitted through an online database; and
- (e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).

2. In the event that in a particular year two stages of the HPMP are being implemented in parallel, the following considerations should be taken in preparing the Tranche Implementation Reports and Plans:

- (a) The Tranche Implementation Reports and Plans referred to as part of this Agreement, will exclusively refer to activities and funds covered by this Agreement; and
- (b) If the stages under implementation have different HCFC consumption targets under Appendix 2-A of each Agreement in a particular year, the lower HCFC consumption target will be used as reference for compliance with these Agreements and will be the basis for the independent verification.

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The Ministry of Environment and Climatic Affairs is in charge of the protection, restoration and conservation of all ecosystems, natural resources and environmental services in order to promote a sustainable development. It is also responsible for carrying out national policies regarding climate change and ozone layer protection. The national ozone unit under the Ministry of Environment and Climatic Affairs monitors the consumption of all ozone-depleting substances (ODS) through regional teams. Inspections at converted companies to non-ODS technologies are foreseen to ensure the non uses of ODS after project completion.

2. The Government of Oman has offered and intends to offer continuity of activities and endorsement for the projects over the next years as specified in the institutional support component and the list of activities of the institutional strengthening project. This will guarantee the success of any activity approved for Oman.

3. Close monitoring of all activities and coordination between stakeholders is an essential element of the HPMP and key to reach compliance. There will be regular coordination meetings with industry stakeholders, HCFC importers, Government stakeholders, various industrial associations, and all sectors involved, in order to enact the necessary agreements and measures to carry out the investment and non-investment activities on time and in a coordinated manner. In the manufacturing sector the implementation process and the achievement of the phase-out will be monitored through site visits at enterprise level.

4. Yearly monitoring will be carried out through the ODS licensing and quota system. Verification site visits will be undertaken by independent international experts.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities, including at least the following:
 - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's HPMP;
 - (b) Assisting the Country in preparation of the Tranche Implementation Reports and Plans as per Appendix 4-A;

- (c) Providing independent verification to the Executive Committee that the Targets have been met and associated tranche activities have been completed as indicated in the Tranche Implementation Plan consistent with Appendix 4-A;
- (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future Tranche Implementation Plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
- (e) Fulfilling the reporting requirements for the Tranche Implementation Reports and Plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee, and should include the activities implemented by the Cooperating IA;
- (f) In the event that the last funding tranche is requested one or more years prior to the last year for which a consumption target had been established, submitting annual tranche implementation reports and, where applicable, verification reports on the current stage of the Plan until all activities foreseen had been completed and HCFC consumption targets had been met.
- (g) Ensuring that appropriate independent technical experts carry out the technical reviews;
- (h) Carrying out required supervision missions;
- (i) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (j) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
- (k) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the Cooperating IA, the allocation of the reductions to the different budget items and to the funding of the Lead IA and each Cooperating IA;
- (l) Ensuring that disbursements made to the Country are based on the use of the indicators;
- (m) Providing assistance with policy, management and technical support when required; and
- (n) Reaching consensus with the Cooperating IA on any planning, coordination and reporting arrangements required to facilitate the implementation of the Plan.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity to carry out the verification of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

APPENDIX 6-B: ROLE OF THE COOPERATING IMPLEMENTING AGENCIES

1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the Plan, including at least the following:

- (a) Providing assistance for policy development when required;

- (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a co-ordinated sequence in the activities;
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A; and
- (d) Reaching consensus with the Lead IA on any planning, coordination and reporting arrangements required to facilitate the implementation of the Plan.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$134 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met, on the understanding that the maximum funding reduction cannot exceed the value of the tranche being requested. Additional measures might be considered in cases where non-compliance extends for two consecutive years.

2. In the event that the penalty needs to be applied for a year in which there are two Agreements in force (two stages of the HPMP being implemented in parallel) with different penalty levels, the application of the penalty will be determined on a case-by-case basis taking into consideration the specific sectors that lead to the non-compliance. If it is not possible to determine a sector, or both stages are addressing the same sector, the penalty level to be applied would be the largest.
