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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-eighth Meeting
Montreal, Canada, 3-7 December 2012

PROJECT PROPOSAL: TURKEY

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

Phase-out

- HCFC phase-out management plan (stage I, first tranche) UNIDO/UNEP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
Turkey

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

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2011	427.7 (ODP tonnes)

(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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HCFC-124	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HCFC-141b	0.0	215.8	0.0	0.0	0.0	0.0	0.0	0.0	215.8
HCFC-142b	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	6.6
HCFC-22	0.0	3.7	0.0	41.7	159.9	0.0	0.0	0.0	205.3

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	608.0	Starting point for sustained aggregate reductions:	641.0
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	290.1	Remaining:	351.23

(V) BUSINESS PLAN	974,990	Total

(VI) PROJECT DATA			2010	2012	2013	2014	2015	2016	2017	Total
Montreal Protocol consumption limits			n/a	n/a	608.0	608.0	547.2	547.2	547.2	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	513.0	418.0	323.0	228.0	148.9	n/a
Project Costs requested in principle(US$)	UNEP	Project costs	0	103,450	0	0	0	0	0	103,450
		Support costs	0	13,449	0	0	0	0	0	13,449
	UNIDO	Project costs	7,713,490	807,750	0	0	2,500,000	2,500,000	598,850	14,120,090
		Support costs	578,512	56,543	0	0	175,000	175,000	41,920	1,026,975
Total project costs requested in principle (US $)			7,713,490	911,200	0	0	2,500,000	2,500,000	598,850	14,223,540
Total support costs requested in principle (US $)			578,512	69,992	0	0	175,000	175,000	41,920	1,040,424
Total funds requested in principle (US$)			8,292,002	981,192	0	0	2,675,000	2,675,000	640,770	15,263,964

(VII) Request for funding for the first tranche (2012)		
Agency	**Funds requested (US $)**	**Support costs (US $)**
UNEP	103,450	13,449
UNIDO	807,750	56,543

Funding request:	Approval of funding for the first tranche (2012) as indicated above
Secretariat's recommendation:	For individual consideration

PROJECT DESCRIPTION

1. On behalf of the Government of Turkey UNIDO, as the lead implementing agency, has submitted to the 68th meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP) at a total cost of US $15,450,322, consisting of US $14,139,490, plus agency support costs of US $1,028,332 for UNIDO, and US $250,000, plus agency support costs of US $32,500 for UNEP, as originally submitted. Implementation of the activities included in stage I of the HPMP will phase out 476.40 ODP tonnes of HCFCs. These amounts include US $7,713,490, plus agency support costs of US $578,512 for UNIDO for an umbrella project for the phase-out of 99.0 ODP tonnes of HCFC-141b used in the manufacturing of polyurethane (PU) insulated sandwich panels and phase-out of 120.0 ODP tonnes of HCFC-142b and 74.7 ODP tonnes of HCFC-22 in the manufacture of extruded polystyrene (XPS) boardstock, approved at the 62nd meeting. The total reduction of 476.4 ODP tonnes of HCFCs will allow the Government to meet the Montreal Protocol's compliance target of the 10 per cent per cent reduction by 2015, and will contribute towards the 65.7 per cent reduction in 2025.

2. The first tranche for stage I being requested at this meeting amounts to US $1,747,659, consisting of US $1,501,317, plus agency support costs of US $105,092 for UNIDO, and US $125,000, plus agency support costs of US $16,250 for UNEP, as originally submitted. These amounts exclude the level of funding of the umbrella project previously approved for UNIDO.

Background

3. Turkey, with a total population of 72.75 million inhabitants, has ratified all the amendments to the Montreal Protocol.

ODS policy and regulatory framework

4. The ozone depleting substance (ODS) phase-out regulation was issued by the Ministry of Environment and Forestry on 12 October 2008 which *inter alia* bans the import of: HCFC-based equipment (including compressors) from 1 January 2010; HCFC-141b both in bulk or contained in imported pre-blended polyols from 1 January 2013; HCFC-22 used for manufacturing refrigeration and air-conditioning systems sold in the local market from 1 January 2015; and HCFC-22 for all other uses, including refrigeration servicing, from 1 January 2025. From 1 January 2015 the use of HCFC-22 will be allowed only for manufacturing refrigeration and air-conditioning equipment for the export market.

5. Importers of HCFCs must obtain a certificate from the Ministry of Foreign Trade. They must report to the Ministry of Trade and the National Ozone Unit (NOU) by the end of February each year on the previous year's total imports. End-users with equipment containing 3 kg or more of HCFC refrigerants must provide an audit of the equipment and service records at least once a year. Refrigeration service technicians are required to be graduates from an approved educational institution or have successfully completed at least five hours training on the use and control of ODS from certified institutions.

HCFC consumption, starting point and sector distribution

6. HCFC consumption in Turkey increased from 8,515.8 metric tonnes (mt) (574.9 ODP tonnes) in 2005 to 13,186.2 mt (922.9 ODP tonnes) in 2007, and then decreased to 5,797.14 mt (427.73 ODP tonnes) in 2011, as shown in Table 1. The three main HCFCs consumed in Turkey are HCFC-141b,

HCFC-142b and HCFC-22. The baseline for compliance was established at 608.0 ODP tonnes based on data reported by the Government of Turkey under Article 7 of the Montreal Protocol.

Table 1. HCFC consumption in Turkey (Article 7 data)

HCFC	2005	2006	2007	2008	2009	2010	2011	Baseline	% of total
Metric tonnes									
HCFC-123	5.0	0.3	28.6	7.9	1.2	1.2	1.10	1.2	0.01
HCFC-124	0.2	0.3	7.6	0.6					
HCFC-141b	1,508.0	1,924.0	2,562.2	2,332.8	1,792.1	1,792.1	1,962.20	1,792.1	20.05
HCFC-142b	2,374.0	6,164.0	5,803.3	4,560.8	1,791.4	1,791.4	100.80	1,791.4	20.05
HCFC-22	4,628.6	4,314.8	4,784.6	3,806.7	5,388.0	5,316.0	3,733.04	5,352.0	59.89
Total (mt)	8,515.8	12,403.4	13,186.2	10,708.8	8,972.7	8,900.7	5,797.14	8,936.7	100.00
ODP tonnes									
HCFC-123	0.1	0.0	0.6	0.2	0.0	0.0	0.02	0.0	0.00
HCFC-124	0.0	0.0	0.2	0.0					
HCFC-141b	165.9	211.6	281.8	256.6	197.1	197.1	215.84	197.1	32.43
HCFC-142b	154.3	400.7	377.2	296.5	116.4	116.4	6.55	116.4	19.15
HCFC-22	254.6	237.3	263.2	209.4	296.3	292.4	205.32	294.4	48.42
Total (ODP t)	574.9	849.6	922.9	762.6	609.9	606.0	427.73	608.0	100.00

7. The consumption of HCFC-22 in the manufacturing sector is decreasing as the conversion of the XPS enterprises is being completed and the major manufacturers of refrigeration and air-conditioning equipment are increasing production of non-HCFC based equipment although, in the recent past, consumption of HCFC-22 for servicing has increased. Consumption of HCFC-142b has also been reduced by the conversion of the XPS sector to non-HCFC technologies and is expected to be completed by the end of 2012. Similarly, consumption of HCFC-141b is being reduced by the conversion of the PU foam enterprises covered under the umbrella project. Additionally, relatively small amounts of polyols containing HCFC-141b are imported into the country, with an average consumption of 286.67 mt (31.53 ODP tonnes) over the 2007-2009 period as shown in Table 2.

Table 2. HCFC-141b contained in imported pre-blended polyols in Turkey

HCFC in imported polyols	2007	2008	2009	Baseline*
Metric tonnes	300.00	280.00	280.00	286.67
ODP tonnes	33.00	30.80	30.80	31.53

(*) 2007-2009 average consumption.

Starting point

8. At the 62nd meeting, when the foam umbrella project was approved by the Executive Committee, the Government of Turkey agreed to establish as the starting point for aggregate reductions in HCFC consumption, the 2009 HCFC consumption reported under Article 7 of the Protocol of 609.9 ODP tonnes, plus 30.8 ODP tonnes of HCFCs contained in pre-blended polyols imported in 2009, resulting in a total of 640.8 ODP tonnes.

Sector distribution of HCFCs

9. Approximately 900.0 mt (99.0 ODP tonnes) of HCFC-141b are used in the manufacturing of continuous panels by four locally owned foam enterprises. In addition, 891.80 mt (98.10 ODP tonnes) of HCFC-141b in bulk plus 286.67 mt (31.53 ODP tonnes) contained in imported pre-blended polyols are used by 94 small and medium sized PU foam enterprises (SMEs) manufacturing discontinuous sandwich panels, insulated pipes, display cases, boilers and solar systems, reefer containers and spray foams. Foam systems are supplied by six locally-owned systems houses one of which was established

in 2011. In addition 1,358.2 mt (74.7 ODP tonnes) of HCFC-22 and 1,846.2 mt (120.0 ODP tonnes) of HCFC-142b are used as blowing agents in manufacturing XPS boards.

10. There are 43 refrigeration and air-conditioning enterprises registered with the NOU, and 36 additional ones not formally registered. The manufacturing sector is dominated by six manufacturers which account for 99 per cent of the total production and 95 per cent of the total consumption of refrigerants (Table 3). Several of these enterprises are already manufacturing equipment charged with non-HCFC-22 refrigerants.

Table 3. Main enterprises manufacturing refrigeration and air-conditioning equipment (2010)

Product	Production capacity	Total units	Refrigerant	Charge (kg/unit)	Consumption (mt)
Arcelik LG					
Air-conditioners inverter non-ducted	1,000,000	272,045	HFC-410A	1.13	307.20
Air-conditioners inverter non-ducted	1,000,000	622,254	HCFC-22	0.88	550.34
Air-conditioners inverter ducted	1,000,000	17,415	HFC-410A	3.84	66.97
Vestel Beyaz					
Domestic refrigerator	n/a	1,530,294	R-600a		87.46
Domestic refrigerator	n/a	340,520	HFC-134a		53.37
Split air conditioner	n/a	44,974	HCFC-22		38.00
Split air conditioner	n/a	47,261	HFC-410A		37.83
Ugur Sogutma					
Commercial; deep freezer	452,800	443,057	HFC-134a	n/a	85.20
Ice-cream machine	1,000	42	HCFC-22	n/a	0.17
Türk Demirdokum					
Non-ducted split system	n/a	53,229	HCFC-22	2.02	90.90
Small compact system	n/a	2,338	n/a	n/a	n/a
Ahmet Yar					
Multi-decks	n/a	4,100	HFC-404A	5.90	24.19
Deep freezers	n/a	3,749	HFC-404A	5.60	20.99
Serve-overs	n/a	1,200	HFC-404A	5.80	6.96
Nurdil Teknik					
Commercial refrigerator	6,400	6,400	HCFC-22 / HFC-134a / HFC-404A	n/a	n/a

11. There are over 400 large and more than 5,000 medium and small supermarkets in Turkey, which is the sub-sector with the largest consumption of all refrigerants including HCFC-22. There are approximately 2,700 service workshops with over 6,000 technicians servicing air-conditioning and commercial refrigeration equipment as shown in Table 4. Through the national CFC phase-out plan, 12 recycling and training centres were established in the country.

Table 4. Estimate number of refrigeration and air-conditioning equipment in operation (2011)

Equipment	Average charge (kg)	Units	Leakage rate (%)	Consumption (mt)
Air-conditioner (window unit)	1	82,750	25	20.7
Split air-conditioner	3	3,015,000	25	2,261.3
Central air-conditioner	200	2,240	40	179.2
Chillers	180	1,400	40	100.8

Equipment	Average charge (kg)	Units	Leakage rate (%)	Consumption (mt)
Large commercial/supermarket	350	640	50	112.0
Small commercial	9	21,000	35	66.2
Industrial	200	2,088	40	167.0
Total		3,125,118		2,907

12. The sector distribution of HCFCs in Turkey is summarized in Table 5. Through the implementation of the foam umbrella projects approved at the 62nd meeting and supported by the ban on imports of HCFC-141b from 1 January 2013, at the end of 2012 the only HCFC that will continue to be used in the country is HCFC-22.

Table 5. Sector distribution of HCFCs in Turkey (2009-2011)

HCFC	2009				2010				2011*			
	Foam	Refrigeration		Total	Foam	Refrigeration		Total	Foam	Refrigeration		Total
		Manuf.	Service			Manuf.	Service			Manuf.	Service	
Metric tonnes												
HCFC-22	1,194.3	826.2	3,367.6	5,388.1	749.0	843.1	2,605.1	4,197.2	67.2	758.8	2,907.1	3,733.1
HCFC-141b**	1,792.1			1,792.1	1,719.5			1,719.5	891.8			891.8
HCFC-142b	1,791.4			1,791.4	1,123.4			1,123.4	100.8			100.8
HCFC-123		1.2		1.2		0.9		0.9		1.1		1.1
HCFC-124		-		-		0.3		0.3		-		-
Total (mt)	4,777.8	827.4	3,367.6	8,972.8	3,591.9	844.3	2,605.1	7,041.3	1,059.8	759.9	2,907.1	4,726.8
ODP Tonnes												
HCFC-22	65.7	45.4	185.2	296.3	41.2	46.4	143.3	230.8	3.7	41.7	159.9	205.3
HCFC-141b**	197.1	-	-	197.1	189.1	-	-	189.1	98.1	-	-	98.1
HCFC-142b	116.4	-	-	116.4	73.0	-	-	73.0	6.6	-	-	6.6
HCFC-123	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0
HCFC-124	-	-	-	-	-	0.0	-	0.0	-	-	-	-
Total (ODP t)	379.3	45.5	185.2	609.9	303.4	46.4	143.3	493.0	108.3	41.8	159.9	310.0

(*) Based on the level of HCFC consumption gathered during the preparation of the HPMP.
(**) Excluding 286.67 mt (31.53 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols (average 2007-2009).

HCFC phase-out strategy

13. The Government of Turkey is considering accession to the European Union. Therefore, it has decided to phase out HCFC ahead of the Montreal Protocol's schedule in order to be in line with the European Union policy. The overarching strategy of the HPMP is based on the ODS phase-out regulation of 12 October 2008, with the following strategic priorities: strengthening the control of HCFC imports and use; complete phase-out of HCFCs used in the foam sector by the end of 2012; technical assistance to the refrigeration servicing sector; and ODS destruction capability.

14. The refrigeration and air-conditioning manufacturing sector has partially phased out the consumption of HCFC-22 due to market requirements. The 758.80 mt (41.73 ODP tonnes) used in 2011 will be completely phased out largely without assistance from the Multilateral Fund. By addressing the manufacturing sector first, the Government of Turkey will be able to meet its Montreal Protocol obligations whilst continuing to work with and support smaller users and the refrigeration service sector to phase down over a more extended period.

Phase-out of HCFCs used in the foam sector

15. The Government of Turkey is currently implementing an umbrella project for the conversion of four enterprises manufacturing PU sandwich panels from HCFC-141b to n-pentane, and for the conversion of six enterprises manufacturing XPS boardstock from HCFC-142b/HCFC-22 to HFC-152a/dimethyl ether (DME) (five enterprises) and carbon dioxide (CO_2)/ethanol (one enterprise) technologies. The total cost of the conversion was agreed at US $7,713,490, with an overall cost-effectiveness of US $2.78/kg. Implementation of the umbrella project is progressing very well. Equipment has been delivered to the majority of enterprises and, in a few of them, HCFC phase-out has been reported. Seven of the nine enterprises will be converted by the end of 2012 while in the remaining two enterprises reductions will be completed by mid-2013. From 2009 to 2011 HCFCs have been reduced from 1,792.1 mt to 891.8 mt of HCFC-141b; 1,194.3 mt to 67.2 mt of HCFC-22, and from 1,791.4 mt to 100.8 mt of HCFC-142b, as shown in Table 5 above.

16. Stage I of the HPMP also proposes to phase-out the remaining consumption of 129.63 ODP tonnes of HCFC-141b (including 31.53 ODP tonnes of HCFC-141b contained in imported pre-blended polyols) used by 94 SMEs. In 2013, these SMEs will be supplied with HCFC-141b that was stockpiled in previous years. The larger size enterprises will be converted to hydrocarbon technology, while the medium and small size enterprises to methyl formate, or HFO or HFC-245fa and HFC-365 (the latter two are currently supplied by a few systems houses). For the large enterprises, conversion includes retrofitting of the foam dispensers, pre-blended cyclopentane systems, retrofitting of presses, installation of safety systems, technology transfer, trials and testing, at an average cost of US $250,000/line. For the other enterprises, conversion includes retrofitting of the foam dispensers, technology transfer, trials and testing, at an average cost of US $58,000/line. The total cost for the conversion of the 94 SMEs has been estimated at US $7,960,535, including US $1,427,535 for operating costs. Of this amount, the Government is only requesting US $1,203,400 for trials, technology transfer, testing and coordination activities. Capital and operating costs required at the enterprise level will not be requested from the Multilateral Fund.

Activities in the refrigeration servicing sector

17. Stage I of the HPMP includes the following activities in the servicing sector with an associated phase-out of 1,537.09 mt (84.54 ODP tonnes) of HCFC-22, at a total cost of US $4,972,600, and a cost-effectiveness of US $3.24/kg:

(a) Strengthening the recovery, recycling and reclamation scheme currently in operation by providing 3,000 recovery machines for distribution among service technicians; establishment of one additional reclaim centre; laboratory equipment to check quality of reclaimed refrigerant; and training, at a total cost of US $3,907,600;

(b) Emission reduction programme through introduction of good service practices, training and certification of 1,000 technicians and awareness workshops at a total cost of US $525,000;

(c) Promotion of low-global warming potential (GWP) refrigerants, namely R-290, CO_2 and ammonia, which are currently available, and the new generation of olefin refrigerants that is currently under development, through small-scale demonstration projects and information dissemination, at a total cost of US $290,000; and

(d) Training programmes for customs and law enforcement officers in monitoring, control and identification of HCFCs and HCFC-based equipment, and strengthening the

capacity of training schools through the provision of materials and ODS identification tool kits, at a total cost of US $250,000.

Project implementation and monitoring unit

18. A project implementation and monitoring unit will be established. It will be responsible for, *inter alia*, establishing a project management plan and timeline of activities; coordinating with Governmental ministries, authorities and the private sector on ODS phase-out activities; contracting and managing experts who will assist in implementing phase-out activities; developing and implementing training, awareness and capacity-building activities; preparing annual implementation work plans and progress reports; and establishing an appropriate independent monitoring and evaluation process. The total cost of this component is US $500,000.

Total cost of stage I of the HPMP

19. The total cost of the activities proposed in stage I of the HPMP to be funded through the Multilateral Fund amounts to US $14,389,490, including US $7,713,490 approved at the 62nd meeting. These activities will result in the reduction of 6,819.83 mt (507.87 ODP tonnes) of HCFCs with an overall cost-effectiveness of US $2.11/kg (Table 6).

Table 6. Overall cost of stage I of the HPMP for Turkey

Enterprise	Metric tonnes			ODP tonnes			Cost (US$)
	HCFC-141b	HCFC-142b	HCFC-22	HCFC-141b	HCFC-142b	HCFC-22	
Foam manufacturing sector							
Umbrella PU foam*	900.00			99.00			2,447,897
Umbrella XPS foam*		1,053.85	830.91		68.50	45.70	5,265,593
Non-eligible XPS foam*		792.31	527.27		51.50	29.00	
Remaining PU foam**	1,178.45			129.63			1,203,400
Total foam	2,078.45	1,846.11	1,358.17	228.63	120.00	74.70	8,916,890
Refrigeration servicing sector							
Recovery, recycling scheme			445.09			24.48	3,907,600
Emission reduction			600.00			33.00	525,000
Demo low-GWP refrigerant			292.00			16.06	290,000
Customs training			200.00			11.00	250,000
Total refrigeration			1,537.09			84.54	4,972,600
Project monitoring unit							
Total PMU							500,000
Grand total	2,078.45	1,846.11	2,895.26	228.63	120.00	159.24	14,389,490

(*) Approved at the 62nd meeting. The 80.5 ODP tonnes of HCFC used by XPS foam enterprises with foreign ownership were deducted from the starting point for aggregate reduction in HCFC consumption.
(**) Including 286.67 mt (31.53 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

20. The Secretariat has reviewed the HPMP for Turkey in the context of the guidelines for the preparation of HPMPs (decision 54/39), the criteria for funding HCFC phase-out in the consumption sector as agreed at the 60th meeting (decision 60/44), subsequent decisions on HPMPs, the umbrella project in the foam sector approved at the 62nd meeting; and the 2012-2014 business plan of the Multilateral Fund. The Secretariat discussed technical and cost-related issues with UNIDO which were addressed as summarized below.

Operational license system

21. In line with decision 63/17, through an official communication from the Government, confirmation has been received 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 HCFC phase-out schedule. All imports must be reported to the Ministry of Trade and the NOU by the importers. Quotas for 2012 and 2013 are presented in Table 7.

Table 7. HCFC import quotas for 2012 and 2013

HCFC	2012		2013	
	Metric tonnes	ODP tonnes	Metric tonnes	ODP tonnes
HCFC-22	3,000.00	165.00	2,700.00	148.50
HCFC-141b			-	
HCFC 142b/HCFC-22	500.00	30.50	-	-
HCFC-123	10.00	0.20	8.00	0.16
HCFC-124	1.00	0.02	1.00	0.02
Total	3,511.00	195.72	2,709.00	148.68

HCFC consumption and starting point for aggregate reduction in HCFC consumption

22. During the preparation of the HPMP errors were found in the data that had been reported by the Government of Turkey under Article 7 of the Montreal Protocol for 2010 and 2011, as shown in Table 8. Based on the corrected consumption data, the baseline for compliance would be 551.4 ODP tonnes (i.e., 56.6 ODP tonnes lower than the current baseline). Through an official communication to the Ozone Secretariat on 9 July 2012, the Government has requested a review of its HCFC baseline by the Implementation Committee.

Table 8. Comparison between Article 7 data and consumption data based on the survey of the HPMP

HCFC	Data reported under Article 7 data				Revised consumption based on HPMP			
	2009	2010	2011	Baseline	2009	2010	2011	Baseline
Metric tonnes								
HCFC-123	1.2	1.2	1.10	1.2	1.2	0.9	1.10	1.1
HCFC-124						0.3	-	0.2
HCFC-141b	1,792.1	1,792.1	1,962.20	1,792.1	1,792.1	1,719.5	891.80	1,755.8
HCFC-142b	1,791.4	1,791.4	100.80	1,791.4	1,791.4	1,123.4	100.80	1,457.4
HCFC-22	5,388.0	5,316.0	3,733.04	5,352.0	5,388.0	4,197.1	3,733.10	4,792.6
Total (mt)	8,972.7	8,900.7	5,797.14	8,936.7	8,972.7	7,041.2	4,726.80	8,007.1
ODP tonnes								
HCFC-123	0.0	0.0	0.02	0.0	-	0.0	0.02	0.0
HCFC-124						0.0	-	0.0
HCFC-141b	197.1	197.1	215.84	197.1	197.1	189.1	98.10	193.1
HCFC-142b	116.4	116.4	6.55	116.4	116.4	73.0	6.55	94.7
HCFC-22	296.3	292.4	205.32	294.4	296.3	230.8	205.32	263.6
Total (ODP t)	609.9	606.0	427.73	608.0	609.9	493.0	309.99	551.4

23. The starting point for aggregate reductions in HCFC consumption was based on the reported consumption in 2009 plus the amount of HCFC-141b imported in pre-blended polyols also in 2009 (resulting in 640.8 ODP tonnes). However, in line with decision 61/47(c)(ii), the amount of HCFC-141b in imported pre-blended polyols should be based on the average amount imported over the 2007-2009 period (i.e., 31.53 ODP tonnes) and not the 2009 consumption. Accordingly, the revised starting point would be 641.33 ODP tonnes (i.e., 609.9 plus 31.53 ODP tonnes).

Justification for additional phase-out activities in stage I of the HPMP

24. Implementation of the umbrella foam project approved at the 62nd meeting will result in the phase-out of 293.70 ODP tonnes of HCFCs, representing 48.3 per cent of the established HCFC baseline for compliance. The technical assistance activities in the foam and refrigeration servicing sector included in stage I of the HPMP will result in the phase-out of an additional 182.64 ODP tonnes of HCFCs, representing 30.0 per cent of the baseline. Accordingly, implementation of stage I of the HPMP will result in the phase out of 476.40 ODP tonnes of HCFCs, representing 78.3 per cent of the baseline.

25. The Secretariat reviewed the activities proposed in stage I of the HPMP and the associated amounts of HCFCs to be phased out on the basis of the following facts:

(a) The Government of Turkey has decided to phase out HCFC ahead of the Montreal Protocol's schedule in order to be in line with the European Union policy. Supporting this decision, the Government had issued regulations that will reduce consumption of HCFCs in the near future. Specifically, HCFC-141b imported in bulk and/or in pre-blended polyols will be banned from the end of 2012. The use of HCFC-22 for manufacturing refrigeration and air-conditioning equipment will be banned from the end of 2014, except for equipment destined for the export market;

(b) The inclusion in the umbrella foam project approved at the 62nd meeting of an additional 80.50 ODP tonnes of HCFC-141b used by ineligible enterprises that will be phased-out with their own resources at the same time of eligible enterprises;

(c) The counterpart funding by the foam enterprises supported through the umbrella project, resulted in its approval at a cost-effectiveness value of US $2.78/kg (excluding the ineligible HCFC consumption), as compared to US $6.00/kg to over US $9.00/kg for the majority of HCFC PU foam projects, and US $3.60/kg for the few XPS projects so far approved. On this basis, counterpart funding could be assessed at approximately US $11,000,000 based on an average cost-effectiveness of US $6.00/kg;

(d) Considering that there are still 94 SMEs using 1,178.87 mt (129.68 ODP tonnes) of HCFC-141b (both in bulk and in imported pre-blended polyols), the Government of Turkey is proposing a technical assistance programme to introduce non-HCFC-141b foam systems at a cost of US $1,203,400, rather than an investment project at an estimated cost of US $7,960,000. This approach, in addition to facilitate the application of the import ban on HCFC-141b, will result in US $6,756,600 to the Multilateral Fund;

(e) The majority of the enterprises manufacturing refrigeration and air-conditioning systems are already supplying equipment with alternative refrigerants as well as with HCFC-22. As indicated in the HPMP, after 1 January 2015 financial assistance from the Fund might be required to address potential needs of only the SMEs in this sector. Implementation of the activities addressing the servicing sector proposed in stage I will maintain the momentum initiated by large manufacturing enterprises and some trade associations in introducing alternative technologies, discourage installation of new HCFC-22-based refrigeration systems, and raise awareness of the regulations banning the import of HCFC-22 used for manufacturing equipment sold in the local market from 1 January 2015 and for all other uses, including servicing, from 1 January 2025;

(f) Funding of US $3.24/kg is being requested for activities in the refrigeration servicing sector instead of US $4.50/kg threshold, resulting in over US $1,900,000 in savings to the Multilateral Fund. Furthermore, it is expected that the proposed activities, in particular enhanced control on refrigerant leakage and recovery and recycling, will reduce the future demand of HCFC-22. For example, a 10 per cent reduction in the consumption of HCFC-22 (i.e., 290 mt based on the consumption in 2011) will result in over US $1,300,000 in savings;

(g) The activities to demonstrate conversion of refrigeration systems in supermarkets to low-GWP technologies (i.e., CO_2 ammonia, hydrocarbon) is aimed at gaining commitments from larger end-users. Given manufacturer's access to these technologies has the potential of reducing the demand of HCFC-22 in the country; and

(h) At the 66th meeting, the Executive Committee endorsed the consolidated 2012-2014 business plan of the Fund[1]as further adjusted by the Secretariat and the Committee, noting that endorsement denoted neither approval of the projects identified therein nor their funding or tonnage levels, and based on its consideration, *inter alia*, to limit new HCFC phase-out activities that would exceed a 10 per cent reduction of the baseline to no more than a 35 per cent reduction of the baseline in non-low-volume-consuming (non-LVC) countries for those activities in the business plan that had not yet been submitted (decision 66/5(a)(iii)). As previously indicated, the total amount of HCFCs associated with the new activities included in stage I of the HPMP, represents 30 per cent of the baseline.

Issues related to the technical assistance programmes

26. The Secretariat discussed with UNIDO the proposal for phasing out HCFC-141b used by the 94 SMEs through trials, technology transfer and testing. Although funding was not being requested for equipment or to cover operating costs, it was pointed out that basic information at the enterprise level (e.g., baseline equipment, foreign ownership and date of establishment) was not provided. The Secretariat also suggested an alternative approach for the conversion of the remaining SMEs with full assistance and support from their systems houses. Through this approach the introduction of alternative polyols in the country could be assured thus allowing for the continuous supply of non-HCFC-141b pre-blended polyols to the foam industry. In the case that during implementation of the conversion any foam enterprise is found to be ineligible, the funding associated with those enterprises would be returned to the Multilateral Fund. After further consideration of the alternative approach with stakeholders in Turkey, a revised technical assistance programme was developed that would allow each systems house to supply additional non-HCFC-141b (such as methyl formate and methylal) pre-blended polyols. Funding of US $236,800 will be provided to each eligible systems house for the installation of a flammable unloading station, explosion proofed blending unit, safety related systems, laboratory equipment, safety audit, training and technology transfer. The total cost associated with this activity amounts to US $1,184,000, which is similar to costs of other similar systems house activities approved in other Article 5 countries (i.e., Brazil, India, Malaysia and Mexico). The downstream foam enterprises will cover all expenses required for the conversion to alternative pre-blended polyols, while technical support, technology transfer and funding for trials and testing will be provided through the systems houses. As only technology transfer, trials and testing will be provided through the Multilateral Fund, funding for any second-stage conversion enterprise will be in line with the

[1] Documents UNEP/OzL.Pro/ExCom/66/7 and Add.1.

requirement of decision 60/44(b)(ii)[2]. Verification and validation of the data at each downstream foam enterprise will be done during implementation of the project.

27. The Secretariat and UNIDO also discussed issues related to the refrigeration servicing sector, including the rational for the request of 3,000 recovery units, the certification programme for technicians and the activities for the promotion of low-GWP refrigerants. With regard to the recovery/recycling scheme, UNIDO explained that the number of recovery units being requested is less than the actual number required considering that there are over 5,000 technicians and that recovery, recycling and reclaim of refrigerants will be made mandatory. The certification scheme for technicians is an essential part of the control process for the service sector and funds have been requested to integrate and consolidate different current databases which exist in government and non-government organisations and create a single source of information and master database of certified technicians. With regard to the promotion of alternative refrigerants, the use of small scale ammonia systems is now becoming more widespread in the country and although the use of hydrocarbon-based systems is currently limited, the potential for their introduction in certain applications is considerable. The cost associated with the training programme for customs officers was adjusted from US $250,000 to US $103,450 which is similar to the level of funding approved in other Article 5 countries.

Overall agreed cost of the HPMP

28. The total cost of the activities proposed in stage I of the HPMP to be funded through the Multilateral Fund amounts to US $14,323,540 (excluding agency support costs). These activities will result in the phase-out of 507.87 ODP tonnes of HCFCs with an overall cost-effectiveness of US $2.09/kg (Table 9).

Table 9. Overall cost of stage I of the HPMP for Turkey

Enterprise	Metric tonnes			ODP tonnes			Cost (US$)
	HCFC-141b	HCFC-142b	HCFC-22	HCFC-141b	HCFC-142b	HCFC-22	
Foam manufacturing sector							
Umbrella PU foam*	900.00			99.00			2,447,897
Umbrella XPS foam*		1,053.85	830.91		68.50	45.70	5,265,593
Non-eligible XPS foam*		792.31	527.27		51.50	29.00	
Remaining PU foam**	1,178.45			129.63			1,184,000
Total foam	2,078.45	1,846.11	1,358.17	228.63	120.00	74.70	8,897,490
Refrigeration servicing sector							
Recovery, recycling scheme			445.09			24.48	3,907,600
Emission reduction			600.00			33.00	525,000
Demo low-GWP refrigerant			292.00			16.06	290,000
Customs training			200.00			11.00	103,450
Total refrigeration			1,537.09			84.54	4,826,050
Project monitoring unit							
Total PMU							500,000
Grand total	2,078.45	1,846.11	2,895.26	228.63	120.00	159.24	14,223,540

(*) Approved at the 62nd meeting. The 80.5 ODP tonnes of HCFC used by XPS foam enterprises with foreign ownership were deducted from the starting point for aggregate reduction in HCFC consumption.
(**) Including 286.67 mt (31.53 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols.

29. The total amount of HCFCs to be phased out during stage I of the HPMP is 507.87 ODP tonnes, consisting of 197.10 ODP tonnes of pure HCFC-141b, 31.53 ODP tonnes of HCFC-141b

[2] Funding for all other second-stage conversion projects will be limited to funding for installation, trials, and training associated with those projects.

contained in imported polyols, 120.00 ODP tonnes of HCFC-142b and 159.24 ODP tonnes of HCFC-22 (including 51.5 ODP tonnes of HCFC-142b and 29.0 ODP tonnes of HCFC-22 associated with non-eligible XPS foam enterprises). The total amount of HCFCs to be phased out (excluding 31.53 ODP tonnes of HCFC-141b imported in pre-blended polyols), represents 78.3 per cent of the established baseline (i.e., 608.0 ODP tonnes), or 86.4 per cent if the Parties to the Montreal Protocol agree to revise the baseline to 551.4 ODP tonnes. The Government of Turkey commits to reducing 75.5 per cent of the established baseline (or 86.4 per cent if the baseline is revised by the Parties) by 2017 on the understanding that the activities in the refrigeration servicing sector proposed in stage I of the HPMP are approved and that the Government would be able to submit stage II of the HPMP not earlier than 2015. This would represent the largest phase-out commitment by a non-LVC country.

Impact on the climate

30. Implementation of stage I of the HPMP in Turkey would avoid the emission into the atmosphere of some 7,799,393 tonnes of CO_2-equivalent associated with the complete phase-out of HCFCs used by foam enterprises, as shown in Table 10.

Table 10. Calculation of the impact on the climate

Substance	GWP	Ton/year	CO_2-eq (tonnes/year)
Before conversion			
HCFC-141b	713	2,078.47	1,481,949
HCFC-142b	2,270	1,846.11	4,190,670
HCFC-22	1,780	1,358.17	2,417,543
Total before conversion		5,282.75	8,090,161
After conversion			
n-pentane	20	1,247.08	24,942
HFC-152a	122	2,178.91	265,827
Total after conversion		3,425.99	290,769
Net impact			(7,799,393)

31. The proposed technical assistance activities in the servicing sector, which include the introduction of better containment of refrigerants and leakage control and the enforcement of HCFC import quotas, will reduce the amount of HCFC-22 used for refrigeration servicing by some 1,337 mt. Each kilogramme of HCFC-22 not emitted due to better refrigeration practices results in savings of approximately 1.8 CO_2-equivalent tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Turkey, and in particular its efforts to improve servicing practices, refrigerant recovery, reuse and reclaim indicate that the implementation of stage I 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

32. In response to decision 54/39(h) on potential financial incentives and opportunities for additional resources to maximize the environmental benefits from HPMPs pursuant to paragraph 11(b) of decision XIX/6 of the Nineteenth Meeting of the Parties, UNIDO indicated that several opportunities were investigated and considered to ensure co-financing support for the HPMP, the most

relevant being the contribution of the private sector. Furthermore, conversion of large refrigeration manufacturing operations to non-HCFCs technologies are currently being implemented with financial support outside the Multilateral Fund although it is difficult to estimate with accuracy the total funding associated with these initiatives as such investment activities usually involve technology up-grades and energy efficiency related components and do not exclusively cover conversion to non-HCFCs technologies. Key stakeholders are leading various capacity building initiatives to improve the knowledge on new alternatives available on the market. Such initiatives are integrated with the on-going activities under Turkey's climate change strategy and its plan of action recently adopted by the Government.

2012-2014 business plan of the Multilateral Fund

33. The level of funding requested for the implementation of stage I of the HPMP of US $6,971,960 including agency support cost, but excluding the umbrella project approved at the 62nd meeting, is higher than that of the 2012-2014 business plan, since it is associated with a much larger amount of HCFCs to be phased out during implementation of stage I of the HPMP (i.e., 182.64 ODP tonnes). Given this situation, UNIDO and UNEP agreed to request US $981,192 (including support costs) between 2012-2014, and the balance of US $5,990,770 after 2014.

Draft Agreement

34. A draft Agreement between the Government of Turkey and the Executive Committee for HCFC phase-out is contained in Annex I to the present document.

RECOMMENDATION

35. In light of the above comments by the Secretariat, and in particular paragraphs 24, 25 and 29 (phase-out beyond the 10 per cent of the baseline), the Executive Committee may wish to consider:

(a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Turkey for the period 2012 to 2017 to reduce HCFC consumption by 75.5 per cent [86.4 per cent if the baseline is revised by the Parties] of the established baseline, at the amount of US $6,971,961, consisting of US $6,406,600, plus agency support costs of US $448,462 for UNIDO, and US $103,450, plus agency support costs of US $13,449 for UNEP; and noting that stage I of the HPMP also covers US $7,713,490, plus agency support costs of US $578,512 for UNIDO for an umbrella project for the phase-out of 293.7 ODP tonnes of HCFCs used for the production of polyurethane (PU) rigid foam and extruded polystyrene (XPS) boardstock foam, approved at the 62nd meeting;

(b) Noting:

(i) That with the amounts referred to in subparagraph (a) above, the total funding for stage I of the HPMP for Turkey amounted to US $14,223,540, plus agency support costs of US $1,040,422;

(ii) The revised starting point for sustained aggregate reduction in HCFC consumption calculated on the basis of the consumption of 609.9 ODP tonnes reported for 2009 under Article 7 of the Montreal Protocol, which were the latest data available when the umbrella project for the phase-out of HCFCs in the PU and XPS foam sub-sectors had been approved at the 62nd, plus 31.53

ODP tonnes of HCFC-141b contained in imported pre-blended polyol systems, resulting in 641.33 ODP tonnes;

(iii) The deduction of 293.7 ODP tonnes of HCFCs from the starting point for sustained aggregate reduction in HCFC consumption for an umbrella project approved at the 62nd-meeting, and deducting a further 214.17 ODP tonnes of HCFCs for the implementation of stage I of the HPMP;

(iv) That the Government of Turkey had committed to banning the import of: HCFC-141b in bulk or contained in pre-blended polyols by 1 January 2013; HCFC-22 used for manufacturing refrigeration and air-conditioning systems sold in the local market from 1 January 2015; and HCFC-22 for all other uses, including refrigeration servicing, from 1 January 2025; and

(v) That approval of stage I of the HPMP did not preclude Turkey from submitting, not earlier than 2015, a proposal to achieve a reduction in HCFCs beyond that addressed in stage I of the HPMP;

(c) Approving the draft Agreement between the Government of Turkey and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document; and

(d) Approving the first tranche of stage I of the HPMP for Turkey, and the corresponding implementation plan, for an amount of US $981,192, consisting of US $807,750, plus agency support costs of US $56,543 for UNIDO, and US $103,450 plus agency support costs of US $13,449 for UNEP.

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Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF TURKEY AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS

1. This Agreement represents the understanding of the Government of the Republic of Turkey (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 148.96 ODP tonnes [74.99 ODP tonnes if the Parties agree to revise the baseline for compliance] by 1 January 2017 in compliance with Montreal Protocol schedules, with the understanding that this figure is to be revised one single time, in the event that the baseline consumption for compliance is amended based on revised Article 7 data.

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 eligible consumption).

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 HCFC phase-out sector plans submitted. 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.

5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless 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 had 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. Years for which no obligation for reporting of country programme data exists at the date of the Executive Committee meeting at which the funding request is being presented are exempted;

(b) That the meeting of these Targets has been independently verified, unless the Executive Committee decided that such verification would not be required;

(c) That the Country had submitted annual implementation reports in the form of Appendix 4-A ("Format of 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 an annual 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.

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 annual implementation plans in accordance with their roles and responsibilities set out in Appendix 5-A. This monitoring will also be subject to independent verification as described in paragraph 4 above.

7. The Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the 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 an annual implementation plan submitted as foreseen in sub-paragraph 5(d) above, or as a revision to an existing annual 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 annual implementation plan, or removal of an activity in the annual 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 annual implementation plan, under implementation at the time, and reported to the Executive Committee in the subsequent annual implementation report;

(c) Should the Country decide during implementation of the agreement to introduce an alternative technology other than that proposed in the approved HPMP, this would require approval by the Executive Committee as part of an Annual 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 in incremental costs 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 approved HPMP and that would be found to be ineligible under the guidelines of the Multilateral Fund (i.e., due to foreign ownership or establishment post the 21 September 2007 cut-off date), will not receive assistance. This information would be reported to the Executive Committee as part of the Annual Implementation Plan;

(e) The Country commits to examining the possibility of using pre-blended hydrocarbon systems instead of blending them in-house, for those foam enterprises covered under the

umbrella project, should this be technically viable, economically feasible and acceptable to the enterprises; and

(f) Any remaining funds will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

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

(a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and

(b) The Country and the bilateral and implementing agencies involved will take full account of the requirements of decisions 41/100 and 49/6 during the implementation of the plan.

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 any of the agencies 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). This responsibility includes the necessity to co-ordinate with the Cooperating IA to ensure appropriate timing and sequence of activities in the implementation. The Cooperating IA will support the Lead IA by implementing the activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have reached consensus on the arrangements regarding inter-agency planning, reporting and responsibilities under this Agreement to facilitate a co-ordinated implementation of the Plan, including regular co-ordination meetings. 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.

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 kg 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 these decisions are taken, this specific case will not be an impediment 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 decision 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, 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.

14. The completion of stage I of the HPMP 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 there at that time still be activities that are outstanding, and which were foreseen in the Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion 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 unless otherwise specified by the Executive Committee.

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	294.40
HCFC-141b	C	I	197.10
HCFC-142b	C	I	116.40
Subtotal			608.00*
HCFC-141b in imported polyols			31.53
Total			641.33

(*) The difference of 0.1 ODP tonnes in the subtotal is due to a very small consumption of HCFC-123 and rounding

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2010	2012	2013	2014	2015	2016	2017	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	608.00 [551.40]	608.00 [551.40]	547.20 [496.26]	547.20 [496.26]	547.20 [496.26]	
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	n/a	513.00 [456.10]	418.00 [360.80]	323.00 [265.50]	228.00 [170.20]	148.96 [74.99]	
2.1	Lead IA (UNIDO) agreed funding (US $)	7,713,490	807,750	0	0	2,500,000	2,500,000	598,850	14,120,090
2.2	Support costs for Lead IA (US $)	578,512	56,543	0	0	175,000	175,000	41,920	1,026,975
2.3	Cooperating IA (UNEP) agreed funding (US $)	0	103,450	0	0	0	0	0	103,450
2.4	Support costs for Cooperating IA (US $)	0	13,449	0	0	0	0	0	13,449
3.1	Total agreed funding (US $)	7,713,490	911,200	0	0	2,500,000	2,500,000	598,850	14,223,540
3.2	Total support costs (US $)	578,512	69,992	0	0	175,000	175,000	41,920	1,040,424
3.3	Total agreed costs (US $)	8,292,002	981,192	0	0	2,675,000	2,675,000	640,770	15,263,964
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								84.54
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)`								74.70
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								135.20
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)								98.10
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)								99.00
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)								-
4.3.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)								-
4.3.2	Phase-out of HCFC-142b to be achieved in previously approved projects (ODP tonnes)								116.40
4.3.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)								-
4.4.1	Total phase-out of HCFC-141b contained in imported polyols agreed to be achieved under this Agreement								31.53

Row	Particulars	2010	2012	2013	2014	2015	2016	2017	Total
	(ODP tonnes)								
4.4.2	Phase-out of HCFC-141b contained in imported polyols to be achieved in previously approved projects (ODP tonnes)								-
4.4.3	Remaining eligible consumption for HCFC-141b contained in imported polyols (ODP tonnes)								-

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

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

APPENDIX 4-A: FORMAT OF IMPLEMENTATION REPORTS AND PLANS

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

(a) A narrative report, with data provided by calendar year, regarding the progress since the year prior to 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 ODS phase-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 Annual 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. The narrative report will cover all relevant years specified in sub-paragraph 5(a) of the Agreement and can in addition also include information on activities in the current year;

(b) A verification report of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, 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 until and including the year of the planned submission of the next tranche request, highlighting 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 cover the years specified in sub-paragraph 5(d) of the Agreement. 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 annual implementation reports and annual implementation plans, submitted through an online database. This quantitative information, to be submitted by calendar year with each tranche request, will be

amending the narratives and description for the report (see sub-paragraph 1(a) above) and the plan (see sub-paragraph 1(c) above), the annual implementation plan and any changes to the overall plan, and will cover the same time periods and activities; and

(e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The monitoring process will be managed by the Ministry of Environment and Urbanisation (former Ministry of Environment and Forestry), the National Ozone Unit (NOU) with the assistance of the Lead IA. The NOU will establish a project implementation team.

2. The consumption will be monitored and determined based on official import and export data for the substances recorded by relevant Government departments.

3. The Ministry of Environment and Urbanisation/NOU shall compile and report the following data and information on an annual basis on or before the relevant due dates: annual reports on consumption of the substances to be submitted to the Ozone Secretariat; and annual reports on progress of implementation of HPMP to be submitted to the Executive Committee of the Multilateral Fund.

4. The Ministry of Environment and Urbanisation/NOU and the Lead IA will engage an independent and qualified entity to carry out a qualitative and quantitative performance evaluation of the HPMP implementation.

5. The evaluating entity shall have full access to relevant technical and financial information related to implementation of the HPMP. The evaluating entity shall prepare and submit to the Ministry of Environment and Urbanisation/NOU and the Lead IA, a consolidated draft report at the end of each annual implementation plan, comprising of the findings of the evaluation and recommendations for improvements or adjustments, if any. The draft report shall include the status of the Country's compliance with the provisions of this Agreement.

6. Upon incorporating the comments and explanations as may be applicable, from the Ministry of Environment and Urbanisation/NOU and the Lead IA, the evaluating entity shall finalize the report and submit to the Ministry of Environment and Urbanisation/NOU and the Lead IA.

7. The Ministry of Environment and Urbanisation/NOU shall endorse the final report and the Lead IA shall submit the same to the relevant meeting of the Executive Committee along with the annual implementation plan and reports.

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 Implementation Plans and subsequent reports as per Appendix 4-A;

(c) Providing independent verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the 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 annual implementation plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;

(e) Fulfilling the reporting requirements for the annual implementation reports, annual implementation plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee. The reporting requirements include the reporting about activities undertaken by the Cooperating IA;

(f) Ensuring that appropriate independent technical experts carry out the technical reviews;

(g) Carrying out required supervision missions;

(h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Implementation Plan and accurate data reporting;

(i) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;

(j) 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, the allocation of the reductions to the different budget;

(k) Ensuring that disbursements made to the Country are based on the use of the indicators; and

(l) Providing assistance with policy, management and technical support when required.

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 AGENCY

3. The Cooperating IA will be responsible for a range of activities. These activities are specified in the overall 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; and

(c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A.

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 $56 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.
