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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-sixth Meeting
Montreal, 16-20 April 2012

PROJECT PROPOSAL: SUDAN

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

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Sudan

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

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2010	54.75 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)							Year: 2010		
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123									
HCFC-124									
HCFC-141b		21.07		21.19					42.26
HCFC-142b									
HCFC-22					12.49				12.49

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline	52.67	Starting point for sustained aggregate reductions:	50.6
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	11.87	Remaining:	34.45

(V) BUSINESS PLAN		2012	2013	2014	Total
UNIDO	ODS phase-out (ODP tonnes)	5.0	1.8	0	6.8
	Funding (US \$)	465,220	161,250	0	626,470

(VI) PROJECT DATA			2010	2011	2012	2013	2014	2015	2016	2017	Total
Montreal Protocol consumption limits			n/a	n/a	n/a	52.67	52.67	47.40	47.40	47.40	-
Maximum allowable consumption (ODP tonnes)			n/a	n/a	n/a	52.67	52.67	47.40	42.13	36.87	-
Project Costs requested in principle(US\$)	UNIDO	Project costs	1,056,341	0	250,000	0	110,000	0	0	40,000	1,456,341
		Support costs	79,226	0	18,750	0	8,250	0	0	3,000	109,226
Total project costs requested in principle (US \$)			1,056,341	0	250,000	0	110,000	0	0	40,000	1,456,341
Total support costs requested in principle (US \$)			79,226	0	18,750	0	8,250	0	0	3,000	109,226
Total funds requested in principle (US \$)			1,135,567*	0	268,750	0	118,250	0	0	43,000	1,565,567

* Approved at the 62nd meeting

(VII) Request for funding for the first tranche (2012)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNIDO	250,000	18,750

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

PROJECT DESCRIPTION

1. On behalf of the Government of Sudan UNIDO, as the lead implementing agency, has submitted to the 66th meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP) at a total cost of US \$2,166,341, plus agency support costs of US \$162,476 as originally submitted, to meet the 35 per cent reduction step by 2020. These amounts include US \$1,056,341, plus agency support costs of US \$79,226 for UNIDO, for an umbrella project for the phase-out of 107.90 metric tonnes (mt) (11.87 ODP tonnes) of HCFC-141b used for the production of polyurethane insulation foam for domestic and commercial refrigerators and for panels approved at the 62nd meeting (decision 62/36).

2. The first tranche for stage I being requested at this meeting amounts to US \$390,000 plus agency support costs of US \$29,250 for UNIDO, as originally submitted (these amounts exclude the level of funding for the umbrella project previously approved for UNIDO).

Background

3. Sudan is the largest country in Africa, with a total population of over 36.7 million inhabitants with approximately 14.7 million living in urban areas. This data excludes 8.3 million inhabitants from South Sudan, which became an independent country on 9 July 2011 and is now a Party to the Montreal Protocol. The Government of Sudan has ratified all the amendments to the Montreal Protocol.

4. In terms of the HPMP for Sudan, the separation of the territory of South Sudan has negligible impact. No HCFC-consuming industries have been identified in South Sudan and its refrigeration and air-conditioning sector is much less developed since over 80 per cent of its population is rural with no connection to an electrical grid. Currently there are no reliable data on HCFC imports and consumption in South Sudan; however, these may represent only 2 per cent of Sudan's pre-separation consumption.

ODS regulations

5. The Higher Council for Environment and Natural Resources (HCENR), the highest government institution in Sudan, is responsible for environmental policy and issues, supervises the national ozone unit (NOU) that coordinates ODS phase-out activities. The NOU operates within the Ministry of Industry and is supported by a National Committee composed of several stakeholder organizations including industries, customs organizations, and other local organizations including the Sudan University for Science and Technology.

6. Since 1994, ODS importers are required to register and obtain import licences. A quota system for CFCs was introduced in 2001 with a ban on the import of second-hand equipment using ODS. Bulk imports of CFCs, halons, CTC, TCA and methyl bromide (MB) were banned in 2005. The licensing system operates within this overall framework, and since 2009 HCFC imports have been monitored by the NOU in collaboration with the General Customs Authority (GCA). The GCA uses a computerized monitoring system and reports twice a year to the HCENR using data from import licenses along with the GCA records. A shared database system on quotas and actual imports has improved ODS import controls including HCFCs. The import ban on second-hand ODS-containing equipment includes equipment containing HCFC-22 but there are no specific regulations for HCFCs and no import quotas for HCFCs.

HCFC consumption and sector distribution

7. The HCFC survey in Sudan was carried out in late 2009, supplemented with additional surveys in 2010 and 2011. No HCFC consumption was reported under Article 7 prior to 2007; however, the HCFC

survey demonstrates that consumption between 2004 and 2007 was not zero¹. Based on the results of the survey, the Government of Sudan submitted an official request to the Ozone Secretariat to review its HCFC reported consumption prior to 2009. Table 1 below shows the HCFC consumption in Sudan as revised under Article 7 of the Montreal Protocol. The HCFC baseline for compliance has been established at 52.67 ODP tonnes.

Table 1. HCFC consumption in Sudan reported under Article 7

HCFC	2005	2006	2007	2008	2009	2010	Baseline
Metric tonnes							
HCFC-141b	302.80	308.50	318.00	328.50	355.00	384.00	369.50
HCFC-22	122.80	148.60	156.80	183.15	210.00	227.00	218.50
Total (mt)	425.60	457.10	474.80	511.65	565.00	611.00	588.00
ODP tonnes							
HCFC-141b	33.31	33.94	34.98	36.14	39.05	42.24	40.65
HCFC-22	6.75	8.17	8.62	10.07	11.55	12.49	12.02
Total (ODP tonnes)	40.06	42.11	43.60	46.21	50.60	54.73	52.67

8. About 107.90 mt (11.87 ODP tonnes) of HCFC-141b is used for the production of insulation foam for domestic and commercial refrigerators, and for panels, by four manufacturing enterprises, namely Modern Refrigerators Factory, Amin Factory, Coldair Engineering, and Akadabi Steel, which are currently being converted to pentane technology through an umbrella project approved at the 62nd meeting². The remaining 276.10 mt (30.37 ODP tonnes) of HCFC-141b are used for the production of panels, insulation pipes, vehicle cushions and moulded foam products for the furniture industry by three established companies, and an increasing number of small- and medium-sized enterprises (SMEs) producing foam and insulation services for building contractors (both for repairs and new developments). Some of the SMEs have limited technical capabilities. Accurate levels of HCFC-141b consumption by these loosely organized businesses are not available as their activities are carried out mainly *in situ* and at irregular intervals.

9. HCFC-22, which is imported from China and India, is used to service refrigeration equipment (i.e., commercial and small industrial refrigeration equipment, air-conditioning units and chillers), as shown in Table 2. This consumption is expected to increase rapidly as rising urbanization increases the demand for air-conditioning units and commercial refrigeration. There are about 1,800 refrigeration workshops with 4,400 technicians and many non-trained general service operators in the country. The servicing maintenance sector is rather fragmentary, consisting of small workshops employing 1-5 people.

Table 2. HCFC-22 consumption in Sudan

HCFC-22 equipment	Units	HCFC-22 (mt tonnes)		HCFC-22 (ODP tonnes)	
		Charged	Service	Charged	Service
Commercial refrigerators	4,500,000	11,250.00	112.50	618.75	6.19
Cold stores	140	2.80	0.42	0.15	0.02
Domestic air-conditioners	760,000	760.00	114.00	41.80	6.27

¹ The Secretariat had raised this issue in the context of the HCFC phase-out projects submitted to the 62nd meeting and “UNIDO explained that although the Government had not reported consumption for those years, it was, however known, that it was not zero”. This was confirmed by an official communication from the Ministry of Industry of Sudan to the Fund Secretariat on 27 September 2009; where it was stated “Sudan has not been reporting the consumption of the substances, Annex C, Group I (HCFCs) according to Montreal Protocol, until 2007. This however did not mean that there was no utilization of HCFCs in the country”.

² The procurement of equipment and related technical services based on competitive bidding was being organized, with offers evaluated in January 2011. Equipment should be delivered by the middle of 2012 and the conversion completed by the end of 2012 according to schedule.

HCFC-22 equipment	Units	HCFC-22 (mt tonnes)		HCFC-22 (ODP tonnes)	
		Charged	Service	Charged	Service
Central chillers/air-conditioners	80	2.40	0.48	0.13	0.03
Total	5,260,220	12,015.20	227.40	660.84	12.51

10. Refrigerants are imported by about 20 suppliers, while HCFC-141b is often imported directly by the consuming enterprises. The prices of HCFCs and refrigerants have increased since 2007 as shown in Table 3 below.

Table 3. Prices of HCFCs and refrigerants (US\$ per kg)

HCFCs and non-HCFCs	2007	2011
HCFC-22	3.25-3.70	7.50-11.20
HCFC-141b	1.70-1.90	2.10-2.30
HFC-134a	8.80-9.20	16.70-24.00

HCFC phase-out targets and strategy

11. The Government of Sudan plans to achieve the 2013 and 2015 HCFC control targets by implementing the umbrella project for the manufacturing sector approved at the 62nd meeting that will phase-out 107.90 mt (11.87 ODP tonnes) of HCFC-141b, through regulatory measures for both HCFC-141b and HCFC-22, and activities in the servicing sector to contain the rapid growth in HCFC-22 consumption. The 35 per cent reduction in HCFC consumption by 2020 will be achieved by continuing the conversion of the foam sector, implementing HCFC-22 recycling practices and reducing imports of HCFC-22-based equipment. The application of the licensing system and import quotas will encourage the adoption of non-ODS technology.

12. The Government proposes to implement the following activities between 2012 and 2020:

- (a) Institutional and legal activities to introduce additional import controls and a quota system for HCFCs by 2015; regulatory measures such as an import ban on HCFC-based products and equipment; reduction of import duties for non-HCFC-based equipment; training of customs officers; and support for the NOU to carry out project management activities;
- (b) Activities in the foam sector, in addition to the umbrella project approved for enterprises at the 62nd meeting, including the provision of basic foam equipment (foam spray or small dispensers for water blown formulations), technical assistance for the SMEs on alternative technologies, safety maintenance, and good practices; and
- (c) Technical assistance activities in the refrigeration servicing sector, based on the experiences and lessons learned during the phase-out of CFCs. This will include upgrading the teaching and instruction capacity of the training centres; training refrigeration service technicians; providing recovery and recycling equipment and tools; and promoting the introduction of natural refrigerants through demonstration projects and the use of “desert coolers³” through a feasibility study; and end-of-life refrigerant management programme for spent HCFC-22 available in banks.

³ A unit that cools air through the evaporation of water. The temperature of dry air can be dropped significantly through the phase transition of liquid water to water vapour which requires much less energy than refrigeration.

Cost of the HPMP

13. The total cost of implementing stage I of the HPMP has been estimated at US \$2,995,600 of which US \$829,319 will be provided in the form of counterpart funding, as shown in Table 4.

Table 4. Total cost of stage I of the HPMP for Sudan

Activity	Funding (US \$)		
	Total	Requested	Co-financed
Institutional and legal activities			
Update legislation and regulatory measures	150,000	100,000	50,000
Training for customs officers	60,000	50,000	10,000
Subtotal	210,000	150,000	60,000
Foam sector			
Project approved at the 62 nd meeting	1,670,660	1,056,341	614,319
Investment project	500,000	400,000	100,000
Technical assistance	155,000	150,000	5,000
Subtotal	2,325,660	1,606,341	719,319
Refrigeration servicing			
Upgrading training institutions	90,000	90,000	
Training programme for technicians	150,000	150,000	
Awareness activities	60,000	50,000	10,000
Feasibility study on "desert coolers"	100,000	70,000	30,000
End-of-life refrigerant management	60,000	50,000	10,000
Subtotal	460,000	410,000	50,000
Total	2,995,660	2,166,341	829,319

SECRETARIAT'S COMMENTS AND RECOMMENDATION**COMMENTS**

14. The Secretariat reviewed the HPMP for Sudan 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 agreed at the 60th Meeting (decision 60/44) and subsequent decisions on HPMPs. The Secretariat discussed with UNIDO technical and cost-related issues, which were addressed as summarized below.

Compliance issue

15. At their 23rd meeting the Parties to the Montreal Protocol urged the Government of Sudan, which operated a licensing system for ODS that did not include export controls, to ensure that its system was structured in accordance with Article 4B of the Protocol and provided for the licensing of exports, and to report thereon to the Ozone Secretariat (paragraph 4 of decision XXIII/31). Pursuant to this decision, the Government of Sudan, assisted by UNIDO, submitted a letter to the Ozone Secretariat on 1 March 2012, indicating that the licensing system is now structured in accordance with Article 4B of the Montreal Protocol and provides for the licensing of both imports and exports of ODS.

Status of implementation of the CFC phase-out plan

16. The large majority of the activities included in the CFC phase-out plan have been implemented. As of December 2011, of the US \$1,139,480 approved for the national phase-out plan, US \$1,115,545 had been disbursed or committed. The remaining US \$23,935 is for completion of a small workshop on recovery and recycling procedures and for consultants. Except for a small amount of methyl bromide (1.5 ODP tonnes) and HCFCs no other ODS were imported into Sudan in 2010.

Starting point for aggregate reduction in HCFC consumption

17. The Government of Sudan had agreed in 2010 to establish as its starting point for sustained aggregate reduction in HCFC consumption the consumption of 50.60 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 HCFC-141b was approved at the 62nd meeting (decision 62/36(b)).

Phase-out strategy

18. The Secretariat noted that Sudan, with a CFC baseline for compliance of 456.8 ODP tonnes, has always been categorized as a non-low-volume-consuming (non-LVC) country. Accordingly, stage I of the HPMP could only address up to the 2015 compliance target and not the 2020 target as is being proposed. Furthermore, the 107.90 mt (11.87 ODP tonnes) of HCFC-141b used by the four enterprises covered by the umbrella project approved at the 62nd meeting, representing 22.5 per cent of the established HCFC baseline, will enable the country to be in compliance beyond 2015. In explaining the rationale for the action plan proposed for stage I UNIDO indicated that, in addition to phasing out the HCFCs covered by the umbrella project, Sudan will also need to implement other activities to be in compliance with the 2015 control measure given the levels of HCFC consumption by other foam enterprises and the rapidly growing refrigeration and air-conditioning sectors. However, given that Sudan is a non-LVC country, the Government agreed to address compliance target up to 2015 in stage I of the HPMP.

19. In the context of the HCFC phase-out investment project considered at the 62nd meeting, it was noted that “additional non-investment activities under the HPMP for Sudan would include enforcement of legislation, addressing the refrigeration servicing sector (training of technicians and customs officers, awareness), and enhancement of the monitoring and reporting system.” On this basis, it was agreed to implement the following activities in the refrigeration servicing sector:

- (a) Training of customs officers and enforcement of ODS regulations at a cost of US \$35,000 with an associated phase-out of 7.78 mt (0.43 ODP tonnes) of HCFC-22 (at US \$4.50/kg);
- (b) Training programmes for refrigeration service technicians on good servicing practices including refrigerant leakage prevention and control, provision of basic service tools for technicians, and technical assistance to upgrade the desert coolers technology, at a cost of US \$315,000 with an associated phase-out of 70.00 mt (3.85 ODP tonnes) of HCFC-22 (at US \$4.50/kg); and
- (c) A project monitoring unit at a cost of US \$50,000.

20. As a result of the discussions between the Secretariat and UNIDO, stage I of the HPMP will result in the phase-out of 185.68 mt (16.15 ODP tonnes), as shown in Table 5.

Table 5. Agreed level of funding in stage I of the HPMP for Sudan

Phase-out activities	HCFC to be phased out		Funding (US \$)
	(mt)	(ODP tonnes)	
Phase-out of HCFC-141b used by four enterprises(*)	107.90	11.87	1,056,341
Technical assistance in the refrigeration servicing sector	70.00	3.85	315,000
Training for customs officers and enforcement of legislation	7.78	0.43	35,000
Project monitoring unit			50,000
Total	185.68	16.15	1,456,341

(*) Approved at the 62nd meeting of the Executive Committee.

21. The proposed activities in the foam and refrigeration servicing sectors would result in the phase-out of 16.15 ODP tonnes of HCFCs by 2015, representing 30.7 per cent of the baseline consumption. Given the relatively high level of HCFC consumption to be phased out, implementation of stage I should assist the country in making progress to meet control measures beyond 2015 accordingly. On this basis UNIDO indicated that the Government of Sudan is committed to reducing its HCFC consumption by 30 per cent of its baseline by 2017 through the implementation of stage I of the HPMP.

Impact on the climate

22. Implementation of the umbrella project approved at the 62nd meeting in Sudan would avoid the emission of 76,934 tonnes of CO₂ into the atmosphere (Table 6). Furthermore, the proposed technical assistance activities in the HPMP, which include the enforcement of HCFC import controls and training of refrigeration technicians, will reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in approximately 1.8 CO₂-equivalent tonnes saved. Based on the activities to be implemented in stage I, Sudan will avoid higher emissions of CO₂ into the atmosphere than the 39,157 CO₂ tonnes estimated in the 2012-2014 business plan. A more precise forecast of the impact on the climate of the activities in the servicing sector is presently not available. The impact might be established through an assessment of implementation reports by, inter alia, comparing the levels of refrigerants used annually from the beginning of HPMP implementation, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22-based equipment being retrofitted. The figures are lower with the potential climate impact of the HPMP indicated in the 2012-2014 business plan of 9,645 CO₂-equivalent tonnes.

Table 6. Calculation of the impact on the climate associated with the foam sector

Substance	GWP	Tonnes/year	CO ₂ -eq (tonnes/year)
Before conversion			
HCFC-141b	725	107.9	78,228
After conversion			
Pentane	20	64.7	1,294
Net impact			(76,934)

Co-financing

23. 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 19th meeting of the Parties, UNIDO indicated that the umbrella project for the phase-out of HCFC-141b approved at the 62nd meeting has a counterpart contribution of US \$614,319 which will be provided by the beneficiary enterprises.

2012-2014 business plan of the Multilateral Fund

24. UNIDO is requesting US \$1,565,567 including support costs for implementation of stage I of the HPMP. The total value requested for the period 2012-2014 of US \$387,000 including support costs is below that in the business plan of US \$626,000.

Draft Agreement

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

RECOMMENDATION

26. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Sudan for the period 2011 to 2017 to reduce HCFC consumption by 30 per cent of the baseline, at the amount of US \$400,000, plus agency support costs of US \$30,000 for UNIDO, and noting that the project to phase out 11.87 ODP tonnes of HCFC-141b used for polyurethane rigid foam production in the manufacture of domestic refrigerators, commercial refrigerators and polyurethane insulated composite panels by four enterprises, at the amount of US \$1,056,341, plus agency support costs of US \$79,226 for UNIDO, had already been approved at the 62nd meeting and had been included in stage I of the HPMP;
- (b) Noting that with the amounts referred to in paragraph (a) above, the total funding for stage I of the HPMP for Sudan amounts to US \$1,456,341, plus agency support costs of US \$109,226;
- (c) Noting that the Government of Sudan had agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the consumption of 50.60 ODP tonnes reported for 2009 under Article 7 of the Montreal Protocol, which were the latest data available when the HCFC phase-out umbrella project had been approved at the 62nd meeting;
- (d) Noting the deduction of 11.87 ODP tonnes of HCFCs from the starting point for sustained aggregate reduction in HCFC consumption for the project approved at the 62nd meeting, and deducting a further 4.28 ODP tonnes of HCFCs for implementation of stage I of the HPMP;
- (e) Noting that approval of stage I of the HPMP did not preclude Sudan from submitting, prior to 2015, a proposal to achieve a reduction in HCFCs consumption beyond that addressed in stage I of the HPMP;
- (f) Approving the draft Agreement between the Government of Sudan and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document; and
- (g) Approving the first tranche of stage I of the HPMP for Sudan, and the corresponding implementation plan, at the amount of US \$250,000 plus agency support costs of US \$18,750 for UNIDO.

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Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF SUDAN 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 Sudan (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 36.87 ODP tonnes by 1 January 2017 in compliance with Montreal Protocol schedules.
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 and 4.2.3 (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;
 - (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; and

- (e) That, for all submissions from the 68th meeting onwards, confirmation has been received from the Government that an enforceable national system of licensing and quotas for HCFC imports and, where applicable, production and exports is in place and that the system is capable of ensuring the Country's compliance with the Montreal Protocol HCFC phase-out schedule for the duration of this Agreement.

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; and
- (d) 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") 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). The Executive Committee agrees, in principle, to provide the Lead IA with the fees set out in row 2.2 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 and the Lead IA to facilitate implementation of this Agreement. In particular, it will provide the Lead 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	11.55
HCFC-141b	C	I	39.05
Total			50.60

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2010	2011	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	n/a	52.67	52.67	47.40	47.40	47.40	n/a
1.2	Maximum allowable total consumption of Annex C Group I substances (ODP tonnes)	n/a	n/a	n/a	52.67	52.67	47.40	42.13	36.87	n/a
2.1	Lead IA UNIDO agreed funding (US \$)	1,056,341	0	250,000	0	110,000	0	0	40,000	1,456,341
2.2	Support costs for Lead IA (US \$)	79,226	0	18,750	0	8,250	0	0	3,000	109,226
3.1	Total agreed funding (US \$)	1,056,341	0	250,000	0	110,000	0	0	40,000	1,456,341
3.2	Total support cost	79,226	0	18,750	0	8,250	0	0	3,000	109,226
3.3	Total agreed costs (US \$)	1,135,567*	0	268,750	0	118,250	0	0	43,000	1,565,567
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)									4.28
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)									0.00
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)									7.27
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)									0
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)									11.87*
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)									27.18

(* Approved at the 62nd meeting for four enterprises manufacturing insulation foam and herewith subsumed into this Agreement.

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the last 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 National Ozone Unit (NOU) will appoint a national institution to monitor all activities of the HPMP. This institute will submit annual progress reports of status of implementation of the HPMP through the NOU to the Lead IA.
2. Project Management Unit (National Project Officer) will coordinate daily work of the project implementation and also assist the enterprises as well as Government and non-government institutions and organizations to streamline their activities for smooth implementation of the project and help the Government with monitoring the progress of implementation, and reporting to the Executive Committee.
3. Verification of the achievement of the performance targets, specified in the Plan, will be undertaken, upon specific request of the Executive Committee, by an independent local company or independent local consultants contracted by the Lead IA.

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;
 - (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) 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 items and to the funding of each implementing or bilateral agency involved;
 - (j) Ensuring that disbursements made to the Country are based on the use of the indicators; and
 - (k) 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 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 \$200 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.
