UNITED NATIONS





United Nations Environment Programme

Distr. GENERAL

UNEP/OzL.Pro/ExCom/65/22 17 October 2011

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-fifth Meeting
Bali, Indonesia, 13-17 November 2011

PROJECT PROPOSAL: BAHAMAS (THE)

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)

UNEP/UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Bahamas (The)

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

(II) LATEST ARTICLE 7 DATA	Year: 2010	6.1 (ODP tonnes)
----------------------------	------------	------------------

(III) LATES	(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					
HCFC123										
HCFC124										
HCFC141b										
HCFC142b										
HCFC22					6.13				6.13	

(IV) CONSUMPTION DATA (ODP tonnes)									
2009 - 2010 baseline 4.81 Starting point for sustained aggregate reductions: 4.81									
	CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)								
Already approved:	0.0	Remaining:	3.13						

(V) BU	SINESS PLAN	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.2		0.3		0.3		0.2		0.2		1.2
	Funding (US \$)	71,090	0	71,090	0	71,090	0	71,090	0	32,041	0	316,400

(VI) PROJECT DATA			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits (estimate)			n/a	n/a	4.81	4.81	4.33	4.33	4.33	4.33	4.33	3.13	
Maximum allowable consur	nption (OI	OP tonnes)	n/a	n/a	4.81	4.81	4.33	4.33	4.33	4.33	4.33	3.13	
Project Costs requested in principle(US\$)	UNEP	Project costs	18,200		49,550			58,175				30,975	156,900
		Support costs	2,366		6,442			7,563				4,026	20,397
	cos Suj	Project costs	105,128		10,464			35,828					151,420
		Support costs	9,462		942			3,224					13,628
Total project costs requested	d in princip	ole (US \$)	123,328	0	60,014	0	0	94,003	0	0	0	30,975	308,320
Total support costs requested in principle (US \$)		11,828	0	7,384	0	0	10,787	0	0	0	4,026	34,025	
Total funds requested in pri	nciple (US	\$)	135,156	0	67,398	0	0	104,790	0	0	0	35,001	342,345

(VII) Request for funding for the first tranche (2011)								
Agency	Funds requested (US \$)	Support costs (US \$)						
UNEP	18,200	2,366						
UNIDO	105,128	9,462						

Funding request:	Approval of funding for the first tranche (2011) as indicated above
Secretariat's recommendation:	For Individual consideration

PROJECT DESCRIPTION

- 1. On behalf of the Government of Bahamas (the) UNEP, as the lead implementing agency, has submitted to the 65th Meeting of the Executive Committee stage I of an HCFC phase-out management plan (HPMP) at a total cost, as originally submitted, of US \$303,800 plus support costs of US \$19,929 for UNEP and US \$13,545 for UNIDO. The HPMP covers strategies and activities to achieve a 35 per cent reduction in HCFC consumption by 2020.
- 2. The first tranche for stage I being requested at this meeting amounts to US \$59,800 plus agency support costs of US \$7,774 for UNEP and US \$150,500 plus agency support costs of US \$13,545 for UNIDO, as originally submitted.

Background

ODS regulations

- 3. The Government of Bahamas (the) has ratified all the amendments of the Montreal Protocol. Bahamas (the) has a legislative, regulatory and legal framework for controlling the importation and distribution of HCFCs in its territory. This framework requires that the servicing of equipment be carried out in accordance with procedures specified in the Good Practices in Refrigeration Training Manual or as otherwise specified by the National Ozone Unit (NOU), and controlled substances be recovered by a certified technician at the recovery and recycling centre before equipment disposal. Although the current ozone depleting substances (ODS) regulations include the issuance of quotas, the quota system for HCFCs will be implemented from 2013.
- 4. The NOU under the authority of the Ministry of Environment is responsible for the execution of projects approved under the Refrigerant Management Plan (RMP) and the Terminal Phase-out Management Plan (TPMP), reporting requirements under the Montreal Protocol, and public education and awareness programmes to ensure that Bahamas (the) complies with the provisions of the Protocol. In the frame of the HPMP, the NOU will be in charge of the coordination and the management of the HPMP components.

HCFC consumption

5. The survey results showed that the country uses mostly HCFC-22 in servicing refrigeration and air-conditioning equipment and that Bahamas (the) does not have HCFC-based manufacturing sector. There are significant fluctuations in recorded imports of HCFC-22 resulting from human errors and poor data collection by the Customs Department. Thus, the 2009 imports are probably higher than reported. The 2010 consumption data however is the most accurate since it was electronically generated for the first time and cross checked with some of the importers. Table 1 presents data on HCFC consumption extracted from the survey and reported under Article 7 of the Montreal Protocol.

	Artic	le 7	Survey results			
Year	HCFC-22	HCFC-22	HCFC-22	HCFC-22		
	(in metric tonnes)	(in ODP tonnes)	(in metric tonnes)	(in ODP tonnes)		
2005	102.65	5.65	-	-		
2006	88.45	4.86	-	-		
2007	104.75	5.76	104.75	5.76		
2008	71.70	3.94	71.70	3.94		
2009	63.63	3.50	63.63	3.50		
2010	111.46	6.13	111.46	6.13		

Table 1: HCFC-22 consumption from 2005 to 2010

- 6. Under previously approved activities in the servicing sector, training was provided to 11 trainers for customs, 235 customs officers, 28 trainers for technicians and 201 technicians. The HPMP revealed that although training was provided to technicians and customs officers under the TPMP, no recovery and recycling machines were provided. The self-funded industry programmes only included the procurement of a limited number of recycling machines for enterprises. In this context, Bahamas (the) considers the purchase of recovery machines and tools as a priority during the first phase of the HPMP.
- 7. On the expectation that there will be a fast market lead change to R-410a systems because of the affordability and availability of R-410a technology, HCFC consumption in Bahamas (the) is expected to still grow on a yearly basis by 3 per cent in an unconstrained growth scenario from 2011 to 2020. Table 2 presents the forecast on HCFC consumption up to 2020.

Table 2: Forecast consumption of HCFCs

YEAR		2009*	2010*	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
With	MT	63.63	111.46	114.55	118.18	87.55	87.55	78.79	78.79	78.79	78.79	78.79	56.90
constraint	ODP	3.50	6.13	6.30	6.50	4.81	4.81	4.33	4.33	4.33	4.33	4.33	3.13
Without	MT	63.63	114.46	114.55	118.18	121.82	125.45	129.09	132.73	136.36	140.00	145.45	149.09
constraint	ODP	3.50	6.30	6.30	6.50	6.70	6.90	7.10	7.30	7.50	7.70	8.00	8.20

^{*}Article 7 data

Sectoral distribution of HCFCs

8. HCFCs in Bahamas (the) are used in the domestic and commercial refrigeration sectors. Table 3 below presents the consumption of HCFCs in the country by refrigeration servicing sub-sector.

Table 3: Consumption of refrigerants by sub-sector

Refrigeration equipment	Total units	Charge	Charge (tonnes)		icing tion /year) nes)
		Metric	ODP	Metric	ODP
Domestic air-conditioning (windows, splits, ducted splits)	121,000	205.40	11.30	55.77	3.07
Commercial units and chillers (packaged units, roof top units)	31,863	367.00	20.19	44.59	2.45
Total	152,863	572.40	31.49	100.36	5.52

9. Table 3 shows that 55.6 per cent of the total consumption is used for servicing domestic and air-conditioning systems, and 44.4 per cent for servicing commercial refrigeration equipment, including

chillers. The HPMP estimated the annual servicing need for the equipment at 100.36 mt (5.52 ODP tonnes). The leakage rates are approximately 27 per cent and 12 per cent for domestic units and commercial units/chillers, respectively. The leakage rate in the domestic air-conditioning is justified mainly by the poor installation and the lack of preventive maintenance and corrosion.

10. The current prices of HCFCs and alternative refrigerants per kilogram in the country are: US \$9.70 for HCFC-22, US \$35.85 for HFC-134a, US \$39.68 for HFC-401A, US \$44 for HFC-404A, US \$13.52 for HFC-407C and US \$23.14 for HFC-410A. Given the low price of HCFC-22 in Bahamas (the) as compared to the alternatives, it is used extensively for servicing refrigeration and air-conditioning equipment.

Starting point for aggregate reduction in HCFC consumption

11. The HCFC baseline for compliance was calculated as the average of the 2009 actual consumption of 63.63 mt (3.50 ODP tonnes) and 2010 actual consumption of 111.46 mt (6.13 ODP tonnes) reported under Article 7, which results in a baseline of 87.54 mt (4.81 ODP tonnes).

HCFC phase-out strategy

- 12. The Government of Bahamas (the) plans to freeze HCFC consumption at the baseline level of 87.54 mt (4.81 ODP tonnes) by 1 January 2013, and to gradually reduce its consumption by 10 and 35 per cent by 2015 and 2020 respectively. Thereafter, HCFC consumption reductions will continue following the Montreal Protocol schedule until the 97.5 per cent reduction in 2030, leaving an allowance of 2.5 per cent of the baseline consumption for meeting servicing needs till 2040.
- 13. The overarching strategy of Bahamas (the) is based on the assumption that new commercially viable refrigeration and, in particular, air-conditioning technologies that use zero ODP and low Global Warming Potential (GWP) refrigerants in energy efficient equipment will become available in the coming decade.
- 14. More specifically, the Government of Bahamas (the) will develop and implement the following activities during stage I to meet its compliance targets:
 - (a) Capacity building programme for customs for monitoring and controlling the importation, identifying all types of refrigerant and equipment using HCFCs;
 - (b) Capacity building programme for instructors at the vocational school and about 1,100 technicians on good practices in handling HCFC-22, HFC-407C, HFC-410A and hydrocarbon, and on retrofitting of HCFC-22 based systems to HFC-407C and R-290:
 - (c) Awareness programme for phasing out the use of HCFCs and high GWP refrigerants as and when commercially viable technologies are available;
 - (d) Distribution of refrigerant identifiers, equipment, tools and spares;
 - (e) Monitoring and evaluating the implementation of the HPMP to ensure effectiveness of all the activities proposed within the HPMP.

Cost of the HPMP

15. The total cost of stage I of the HPMP is estimated at US \$303,800 plus agencies' support costs that amount to US \$33,474 to phase out 30.64 mt (1.68 ODP tonnes) by 2020. Table 4 presents the breakdown of the budget for stage I of the HPMP.

Table 4: Proposed activities and estimated budget

Description	Agency	2011	2015	2019	TOTAL
Capacity building (Training of training of customs, trainers and technicians)	UNEP	42,000	52,000	11,000	105,000
Technical assistance (Wide range refrigerant identifiers, equipment, tools and spares)	UNIDO	150,500			150,500
Public awareness	UNEP	4,500	6,000	1,500	12,000
Project coordination and management	UNEP	13,300	16,900	6,100	36,300
Total		210,300	74,900	18,600	303,800

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

16. The Secretariat reviewed the HPMP for Bahamas (the) 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), subsequent decisions on HPMPs and the 2011-2014 business plan of the Multilateral Fund. The Secretariat discussed technical and cost-related issues with UNEP, which were satisfactorily addressed as summarized below.

HCFC consumption

17. The review of Article 7 data shows an annual increase in HCFC consumption of 75.2 per cent in 2010. The HCFC consumption increased from 63.63 mt (3.50 ODP tonnes) in 2009 to 111.46 mt (6.13 ODP tonnes) in 2010. The Secretariat invited Bahamas (the), through UNEP, to further review its HCFC survey data and verify the accuracy of the 2009 consumption data reported under Article 7 and in the survey. UNEP confirmed that the review was done and that the revision of the 2009 consumption data upwards based on its findings will change neither the strategy nor the impact of the HPMP as proposed. Therefore, Bahamas (the) requested that the 2009 actual consumption reported under Article 7 and in the survey remain unchanged despite the fact that the effective consumption may be higher than the 2009 reported consumption.

Starting point for aggregate reduction in HCFC consumption

18. The Government of Bahamas (the) agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the average level of the 2009 actual consumption of 63.63 mt (3.50 ODP tonnes) and 2010 actual consumption of 111.46 mt (6.13 ODP tonnes) reported under Article 7, resulting in 87.54 mt (4.81 ODP tonnes). The business plan indicated a baseline of 3.64 ODP tonnes.

Technical and cost issues

19. The Secretariat noted that the Government of Bahamas (the) is encouraging the importation and use of R-410A-based systems while the current price of R-410A of \$23.14 per kg is higher than that of HCFC-22 and above the calculated average price based on countries that have submitted their price data to the Multilateral Fund Secretariat. In this context, the Secretariat requested UNEP to assess the

sustainability of this strategy. UNEP explained that Bahamas (the) is strongly influenced by technologies in the United States of America and, given the current price and availability of R-410A technology, Bahamians are already making the transition.

- 20. Moreover, equipment suppliers from the United States already informed their Bahamas retailers that HCFC-22 based equipment may not be available in the near future and new equipment would be based on R-410A. Hence, the transition to R-410A will be imposed by the market rather than by Government initiatives. As a result, the number of R-410A based equipment will increase in Bahamas (the). Nevertheless, through the HPMP Bahamas (the) will monitor and, promote introduction of new technologies that use zero ODP and low-GWP refrigerants.
- 21. The Secretariat also noted that R-290 is being considered by Bahamas (the) for the retrofit of HCFC-22 based systems and that the Government will promote its importation. In this regard, the Secretariat sought additional information on the price of R-290 to assess the sustainability of the strategy. UNEP advised that R-290 prices in Bahamas (the) are not available since it is not currently used in the country. However, it should be highlighted that the use of R-290 will require minor or no modification to the equipment.
- 22. The Secretariat reviewed the equipment inventory and the leakage rates assigned to the equipment available in Bahamas (the). It appears that the leakage rates of approximately 27 per cent for the domestic air conditioning systems and 12 per cent for the commercial refrigeration systems are reasonable given the climate conditions in the country and the status of the refrigeration equipment. The annual need for servicing of 100.36 mt (5.52 ODP tonnes) is justified by the number of equipment units in operation in Bahamas (the).
- 23. In line with decision 60/44, the funding for the implementation of Bahamas' HPMP has been agreed at US \$308,320 (excluding agencies' support costs) as shown in Table 5, and covers activities for stage I of the HPMP, which aims for a 35 per cent reduction by 2020. The total support cost is US \$34,025 and includes US \$20,397 for UNEP and US \$13,628 for UNIDO, as cooperating agency. Table 5 presents the revised HPMP cost for stage I. These resources will allow the country to phase out 30.64 mt (1.68 ODP tonnes) by 2020.

Table 5: Revised cost of stage I of the HPMP (US\$)

Description	Agency	2011	2013	2016	2020	TOTAL
Capacity building (Training of						
training of customs, trainers and	UNEP					
technicians)		10,000	31,250	41,875	21,875	105,000
Technical assistance (Wide range						
refrigerant identifiers, equipment,	UNIDO					
tools and spares)		105,128	10,464	35,828	-	151,420
Dala!'s services	LIMED					
Public awareness	UNEP	1,000	5,000	3,000	3,000	12,000
Project coordination and	UNEP					
management	OTTE	7,200	13,300	13,300	6,100	39,900
Total	123,328	60,014	94,003	30,975	308,320	

Co-financing

24. 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, Bahamas (the) indicated that the Government will provide the necessary office space and amenities, conference and meeting room and transportation.

Impact on the climate

- 25. The proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices and enforcement of HCFC import controls, 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. Although a calculation of the impact on the climate was not included in the HPMP, Bahamas' short term strategy consisting of promoting the installation of R-410A based systems and/or retrofitting to R-290/R-407C where possible, might have a negligible impact on climate. However, at this time, the Secretariat is not in a position to quantitatively estimate the impact on the climate. 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. The potential climate impact of the HPMP indicated in the 2011-2014 business plan of 4,165.1 CO₂-equivalent tonnes.
- 26. 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 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.

2011-2014 business plan of the Multilateral Fund

27. UNEP and UNIDO are requesting US \$308,320 plus support costs for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$202,554 including support costs is above that in the business plan due to the higher established baseline. Based on the HCFC baseline consumption in the servicing sector of 4.81 ODP tonnes, Bahamas' allocation up to the 2020 phase-out should be US \$315,000, excluding support costs, in line with decision 60/44.

Draft agreement

28. A draft Agreement between the Government of Bahamas (the) and the Executive Committee for HCFCs phase-out is contained in Annex I to the present document.

RECOMMENDATION

- 29. The Executive Committee may wish to consider:
 - (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Bahamas (the) for the period 2011 to 2020 to meet the 35 per cent reduction in HCFC consumption, at the amount of US \$342,345, consisting of US \$156,900 plus agency support costs of US \$20,397 for UNEP, and US \$151,420 plus agency support costs of US \$13,628 for UNIDO;
 - (b) Noting that the Government of Bahamas (the) had agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the baseline of 4.81 ODP tonnes, calculated using actual consumption of 3.50 ODP tonnes and 6.13 ODP tonnes reported for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol;
 - (c) Deducting 1.68 ODP tonnes of HCFCs from the starting point for sustained aggregate reduction in HCFC consumption;

- (d) Approving the draft Agreement between the Government of Bahamas (the) and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;
- (e) Approving the first tranche of stage I of the HPMP for Bahamas (the), and the corresponding implementation plan, at the amount of US \$135,156, consisting of US \$18,200 plus agency support costs of US \$2,366 for UNEP, and US \$105,128 plus agency support costs of US \$9,462 for UNIDO.

- - - - -

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF THE COMMONWEALTH OF THE BAHAMAS 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 Commonwealth of The Bahamas (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 3.13 ODP tonnes by 1 January 2020 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 row 4.1.3 (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; and
 - (c) 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. UNEP has agreed to be the lead implementing agency (the "Lead IA") and UNIDO 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	4.81				

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	4.81	4.81	4.33	4.33	4.33	4.33	4.33	3.13	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	n/a	4.81	4.81	4.33	4.33	4.33	4.33	4.33	3.13	n/a
2.1	Lead IA - UNEP agreed funding(US \$)	18,200	0	49,550	0	0	58,175	0	0	0	30,975	156,900
2.2	Support costs for Lead IA(US \$)	2,366	0	6,442	0	0	7,563	0	0	0	4,026	20,397
2.3	Cooperating IA - UNIDO agreed funding (US \$)	105,128	0	10,464	0	0	35,828	0	0	0	0	151,420
2.4	Support costs for Cooperating IA (US \$)	9,462	0	942	0	0	3,224	0	0	0	0	13,628
3.1	Total agreed funding (US \$)	123,328	0	60,014	0	0	94,003	0	0	0	30,975	308,320
3.2	Total support cost (US \$)	11,828	0	7,384	0	0	10,787	0	0	0	4,026	34,025
3.3	Total agreed costs (US \$)	135,156	0	67,398	0	0	104,790	0	0	0	35,001	342,345
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)									1.68		
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)									3.13		

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 NOU will submit annual progress reports of status of implementation of the HPMP to the Lead IA. Monitoring of development of HPMP and verification of the achievement of the performance targets, specified in the Plan, will be assigned to independent local company or to independent international/regional/local consultant(s) 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. 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 and the Cooperating IA, the allocation of the reductions to the different budget items and to the funding of each implementing or bilateral agency involved;
 - (k) Ensuring that disbursements made to the Country are based on the use of the indicators; and
 - (1) 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

1. 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 \$180 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.
