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

## PROJECT PROPOSAL: BANGLADESH

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)

UNDP/UNEP

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

# Bangladesh

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

(II) LATEST ARTICLE 7 DATA	Year: 2010	77.50 (ODP tonnes)
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(III) LATEST	COUNTR		Year: 2010						
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing Servicing					
HCFC-123			0.02	0.1	0.13				0.25
HCFC-124									
HCFC-141b		21.56							21.56
HCFC-142b					11.44				11.44
HCFC-22				22.36	21.80				44.16

(IV) CONSUMPTION DATA (ODP tonnes)											
2009 - 2010 baseline (estimate): 72.65 Starting point for sustained aggregate reductions: 72.											
CONS	CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)										
Already approved:	Remaining:	48.12									

(V) BUSINESS PLAN		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	1.0	1.0	1.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	4.0
	Funding (US \$)	211,390	211,390	211,390	171,350	67,258	0	0	0	0	0	872,780
UNEP	ODS phase-out (ODP tonnes)	2.4										2.4
	Funding (US \$)	375,000	0	0	0	0	0	0	0	0	0	375,000

(VI) PROJECT D	ATA		2010	2011	2012	2013	2014	2015	2018	Total
Montreal Protocol	consumption	limits (estimate)	n/a	n/a	n/a	72.65	72.65	65.39	65.39	
Maximum allowable consumption (ODP tonnes) (% reduction)			n/a	n/a	n/a	72.65	72.65	65.39	48.12	
Project Costs	UNDP	Project costs	1,146,074	55,000						1,201,074
requested in principle(US\$)	Support costs	85,956	4,125						90,081	
principle(054)	UNEP	Project costs		230,000		90,000		18,000	17,000	355,000
		Support costs		29,900		11,700		2,340	2,210	46,150
Total project costs	requested in p	orinciple (US \$)	1,146,074	285,000		90,000		18,000	17,000	1,556,074
Total support costs requested in principle (US \$)			85,956	34,025		11,700		2,340	2,210	136,231
Total funds request	ed in princip	le (US \$)	1,232,030*	319,025		101,700		20,340	19,210	1,692,305

<sup>\*</sup>Approved at the 62<sup>nd</sup> Meeting

(VII) Request for funding for the first tranche (2011)											
Agency	Funds requested (US \$)	Support costs (US \$)									
UNDP	55,000	4,125									
UNEP	230,000	29,900									

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

#### PROJECT DESCRIPTION

- 1. On behalf of the Government of Bangladesh, UNDP, as the lead implementing agency, has submitted to the 65<sup>th</sup> Meeting of the Executive Committee an HCFC phase-out management plan (HPMP) at a total cost, as originally submitted, of US \$2,201,074 plus agency support costs of US \$90,081 for UNDP, and US \$120,000 for UNEP. This amount includes US \$1,146,074 and agency support costs of US \$85,956 for UNDP approved at the 62<sup>nd</sup> Meeting for the phase-out of 20.20 ODP tonnes (183.70 mt) of HCFC-141b used in the manufacture of refrigeration equipment insulation foam in one enterprise in Bangladesh (Walton Industries). The HPMP proposes strategies and activities to meet a 10 per cent reduction in HCFC consumption by 2015.
- 2. The first tranche being requested for the HPMP at this meeting amounts to US \$649,500 plus agency support of US \$3,713 for UNDP and US \$72,000 for UNEP, as originally submitted.

## **Background**

- **3.** The Ozone Cell (NOU) of Bangladesh has overall responsibility for implementation of the Montreal Protocol in the country. This unit operates directly under the Department of Environment, the Ministry of Environment and Forest, and has been operational since 1995.
- 4. The Ozone Depleting Substances (Control) Rules promulgated in 2004 is the basis for the control of trade in ODS including HCFCs. A license is required for import and export of HCFCs, and the authority to issue such import licenses lies with the Department of Environment. The import license specifies that the licensees need to report on the utilization of their respective licenses by the end of the year. There is no annual quota established for HCFC consumption specified in the rules. This system will be introduced by 2013.
- 5. The Government of Bangladesh has ratified all the amendments to the Montreal Protocol

## **HCFC** consumption and sector distribution

- 6. HCFCs are consumed in refrigeration and foam applications in Bangladesh. There are limited quantities used in fire-fighting and solvent applications and no reported use in aerosols. HCFCs are imported primarily from China, United Arab Emirates (UAE), India, Singapore and Thailand. HCFC-123 is also imported into Bangladesh for use as a refrigerant in chillers and as a mixture in fire-extinguishers such as Halotron1 imported from UAE. Currently, there are about 25 to 30 importers of HCFCs in Bangladesh.
- 7. In 2009, HCFC-22 had a 69 per cent share of total HCFC consumption, while thirty per cent was attributed to HCFC-141b. Small amounts of HCFC-142b contained in blends have also been reported. In 2010, the use of HCFC-22 decreased as compared to 2009 mainly due to prevailing high-prices of HCFC-22 and expectations by importers that the prices of HCFC-22 will decrease after January 2011. While the consumption of HCFC-141b was low till the year 2007, the consumption increased in 2008 due to the manufacturing operations of a large domestic refrigerator manufacturing company, Walton Hi-Tech Industries Limited. This enterprise had been funded for conversion at the 62<sup>nd</sup> Meeting of the Executive Committee.
- 8. A large amount of HCFC-22 is also consumed in the manufacturing and assembly of residential air-conditioning (RAC) units. In 2010, 115,000 RAC units were either assembled or manufactured in the country accounting for a consumption of 208.80 mt of HCFC-22. The refrigeration servicing sector has grown considerably over the last decade; this trend will continue under a non-restricted consumption scenario. With regard to the servicing sector, refrigeration servicing workshops in Bangladesh can be categorized as small, medium and large. As per the survey results, there are more than 15,000

refrigeration servicing workshops that employ about 3-4 service technicians each. The total number of these technicians is estimated to be around 50,000 at a conservative level, mostly from the informal sector. The servicing requirements for HCFC-22 per type of equipment is provided in Table 1 below:

Table 1: Amount of HCFC-22 required for servicing in Bangladesh (2009)

Type	Total units	Total charge (tonn		Servicing HCFC-22 (tonnes)			
Туре	Total units	Metric	ODP	Metric	ODP		
Residential air conditioning	1,200,000	2,160.00	118.80	288.00	15.84		
Commercial/air conditioning	45,000	990.00	54.45	66.00	3.63		
Total	1,245,000	3,150.00	173.25	354.00	19.47		

9. The 2007-2009 HCFC consumption reported by the Government of Bangladesh under Article 7 of the Montreal Protocol is presented in Table 2. Based on the actual reported 2009 and 2010 consumption, the HCFC baseline for compliance has been estimated at 72.65 ODP tonnes.

Table 2: HCFC imports by substance (Article 7 data)

	20 (ton		200 (ton)		200 (toni		201 (tonn		Estimated Baseline		
Substance	MT ODP		MT	ODP	MT	ODP	MT	ODP	MT	ODP	
HCFC-123	-	-	6.00	0.12	8.00	0.16	12.65	0.25	10.32	0.21	
HCFC-141b*	45.00	4.95	120.00	13.20	190.00	20.90	196.00	21.56	193	21.23	
HCFC-22	586.00	32.23	925.09	50.87	848.87	46.69	802.84	44.16	825.86	45.42	
HCFC-124	-		-		-	-	5.80	0.13	2.90	0.065	
HCFC-142b	-		-		-	-	176.07	11.46	88.04	5.72	
Total	631.00	37.18	1,051.00	64.19	1,046.90	67.75	1,193.36	77.56	1,120.12	72.65	

<sup>\*</sup>HCFC-141b is used only in Walton, funding for which was approved at the 62<sup>nd</sup> meeting; this increase required only for 2010 production as the conversion project just started.

10. The sector distribution of HCFCs in Bangladesh is shown in Table 3 below:

Table 3: Sector distribution of HCFCs in Bangladesh in 2010

Sector	HCF	C-22	HCFC	-141b	HCF	C-123	HCFO	C-124	HCFC	C-142b	To	tal
	(tonnes)		(tonnes)		(tonnes)		(ton	(tonnes)		nes)		
	Metric	ODP	Metric	ODP	Metric	ODP	Metric	ODP	Metric	ODP	Metric	ODP
Refrigeration sector												
Residential air-conditioning	208.80	11.48									208.80	11.48
Commercial air-conditioning	98.30	5.41									98.30	5.41
Industrial air- conditioning including chillers	84.00	4.62			5.00	0.10					89.00	4.72
Transport air- conditioning	5.00	0.28									5.00	0.28
Commercial refrigeration manufacturing/assembly	2.70	0.15									2.70	0.15
Industrial manufacturing/assembly	3.00	0.17									3.00	0.17
Transport refrigeration and air-conditioning manufacturing/assembly		0.26									4.80	0.26
Foam sector												

Sector	HCFC-22 (tonnes)		HCFC-141b (tonnes)		HCFC-123 (tonnes)		HCFC-124 (tonnes)		HCFC-142b (tonnes)		Total	
	Metric	ODP	Metric	ODP	Metric	ODP	Metric	ODP	Metric	ODP	Metric	ODP
Domestic refrigeration insulation foam			196.0	21.56							196.00	21.56
Others												
Fire extinguishers servicing					1.00	0.02					1.00	0.02
Servicing (for all application)	396.30	21.80			6.60	0.13	5.80	0.13	176.10	11.45	584.80	33.51
Total consumption	802.90	44.16	196.0	21.56	12.60	0.25	5.80	0.13	176.10	11.45	1,193.40	77.55

## HCFC phase-out strategy and costs

- 11. The HPMP for Bangladesh proposes a systematic HCFC phase-out approach through the conversion of those manufacturing enterprises in the foam and refrigeration sectors with the highest consumption of HCFCs, where alternative technologies are technically proven and cost-effective, taking into account global warming potential (GWP). It also proposes a phased approach in adopting alternatives where low-GWP technology availability is limited. Stage I of the HPMP will focus on the expeditious implementation of the conversion project in the foam manufacturing sector for Walton to phase out HCFC-141b. It will also enforce existing regulations to control, limit supply and monitor HCFCs, undertake capacity building measures to limit demand for HCFCs in servicing and manufacturing and installation of new equipment, and complement these activities through awareness and information outreach about the HCFC phase-out and adoption of HCFC-free alternatives.
- 12. During post-stage I, the Government would ensure the complete phase-out of HCFCs in the manufacturing and assembly of any new equipment in RAC applications, reduce demand in any other applications experiencing growth in HCFC consumption and sustain the achievements in reducing HCFC use made during stage I for the servicing sector. These activities are envisaged to be put in place after 2015.
- 13. To meet the 2013 and 2015 phase-out targets, 20.20 ODP tonnes of HCFC-141b used in the foam sector will be phased out and several activities in the refrigeration servicing sector (i.e., training of customs officers and refrigeration service technicians, policy formulation and coordination with the other Government departments and stakeholders) will be implemented during stage I of the HPMP, as shown in Table 4.

Table 4: Summary of HCFC phase-out activities to be implemented in Bangladesh in 2011-2015

Activity	Agency	Budget (US \$)	Impact			
Investment activities						
HCFC-141b phase-out in UNDP 1,146,074 Phase-out of 20.2 tonnes of HCFC-141 consumption) in (project already appro						
Sub-total		1,146,074				
Non-investment activities						
Project management for policy and regulations strengthening*	UNDP	55,000	Regulations for controlling and monitoring supply and use of HCFCs in line with Governments commitment under HPMP developed.			

Service technicians training	UNEP	470,000	Better practices while				
			servicing HCFC based				
			equipment. Fast-track				
			adoption of HCFC-free				
			alternatives (mainly				
			HFC-134a and R-404a)				
Enforcement officials	UNEP	350,000	Better control and monitoring				
training			of HCFC imports and use.				
Awareness and information	UNEP	180,000	Greater understanding of				
outreach			HCFC phase-out and HCFC				
			free alternatives. Fast-track				
			adoption of HCFC free				
			alternatives.				
Sub-total		1,055,000					
Total		2,201,074					

<sup>\*</sup>As per decision 60/11(b) and 61/3(e), funds aggregating to US \$55,000

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

#### **COMMENTS**

## **HCFC** consumption

- 14. There were a number of refrigerant blends imported into Bangladesh in 2010 which were not very clearly defined (i.e. U-134a and YH/FM-12). These mixtures contained HCFC-22 and HCFC-142b. According to UNDP, these are refrigerant blends imported mainly from China and used in RAC applications. The percentage of HCFC-22, HCFC-142b in these mixtures has been included in the consumption data for 2010.
- 15. UNDP also indicated that the decrease in consumption of HCFC-22 between 2008 and 2010 was due to the high prices of HCFCs. However, demand for servicing of residential and light commercial air conditioning equipment continued to increase, coupled with a significant expansion in economic activity in sectors requiring HCFC-22 for refrigeration and air conditioning systems.

## Starting point for aggregate reduction in HCFC consumption

16. The Government of Bangladesh agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption an estimated baseline of 72.65 ODP tonnes based on the average of actual reported consumption in 2009 (67.75 ODP tonnes) and 2010 (77.56 ODP tonnes). The business plan indicated a baseline of 70.40 ODP tonnes.

## **HPMP** strategy

17. To meet the 2013 and 2015 compliance targets, the Government of Bangladesh already received funding from the Multilateral Fund to phase out 183.70 mt (20.20 ODP tonnes) of HCFC-141b used as the blowing agent for the polyurethane foam insulation in the manufacturing of domestic refrigerators in one enterprise in the country. Additional activities included in stage I of the HPMP address the servicing sector on training and capacity building and awareness programmes as well as the implementation of HCFC controls, and monitoring supply based on the phase-out schedule.

<sup>(</sup>Last tranche of UNDP component of National CFC Phase-out Plan for Bangladesh) will be used for this component.

## Technical and cost issues

- 18. Issues were raised regarding the funding request for implementation of the overall activities, looking in particular at the total amount of tonnage that would be associated with it, *vis-a-vis* what had already been funded for the country to comply with the 10 per cent reduction in HCFC consumption by 2015. Queries were raised related to policy and enforcement capacity building, training for service technicians, recovery and awareness-raising (US \$1,000,000 for UNEP). It was also noted that no additional phase-out activities were required to meet the 2013 and 2015 control levels, taking into account that the 20.20 ODP tonnes of HCFCs associated with the investment project approved at the 62<sup>nd</sup> Meeting represented over 27 per cent of the HCFC baseline. The requirement for demonstrating the need for implementing activities in the servicing sector to meet the reduction steps in 2013 and 2015 (as stipulated in decision 60/44(f)(xv)) was also noted. The Secretariat also drew UNDP's attention to discussions and decisions on this issue at the 63<sup>rd</sup> and 64<sup>th</sup> meetings where the Executive Committee had noted that in such cases where the HPMP proposed to address more than 10 per cent of the baseline by 2015, an extended commitment beyond 2015 should be solicited from the government concerned. This commitment was noted in the respective decisions approving these HPMPs.
- 19. UNDP as the lead agency explained that the non-investment activities (US \$1,055,000) are essential to enforce the existing regulations and the relevant legislative set-up, and increase awareness to ensure successful implementation of the HPMP. Initiating the activities in the servicing sector will address the increasing demand for HCFCs in the sectors that are not covered by the approved projects, to keep HCFC phase-out in the foam sector from being offset by growth in other sectors. These activities will also create awareness and communication among stakeholders, which is essential in driving HCFC phase-out where no clear HCFC alternatives are available in the market. UNDP reiterated the need to create an enabling environment for the HCFC reductions to be achieved in the foam sector and also to avoid an increase in consumption in the servicing sector. The implementation of stage I of the HPMP will train a sufficient number of technicians and customs and enforcement officers for better monitoring and follow up of existing systems.
- 20. Further to a discussion between the Secretariat and UNDP, the level of funding was adjusted to US \$410,000 for non-investment activities (mainly training of customs officers and technicians, and enforcement of HCFC policies). UNDP also advised the Secretariat that the Government of Bangladesh is willing to extend its commitment beyond 2015 and agreed for an implementation period between 2011-2018. This funding has an associated phase-out of 4.33 ODP tonnes of HCFCs, and is summarized in the table below:

Table 5: Adjusted funding of HCFC phase-out activities to be implemented in Bangladesh in 2011-2018

Activity	Implementing agency	Budget US\$			
Investment activities					
HCFC-141b phase-out in Walton	UNDP	1,146,074			
Sub-total		1,146,074			
Activity	Implementing agency	Budget US\$			
Non-investment activities					
Project management for policy and regulations strengthening*	UNDP	55,000			
Service technicians training	UNEP	230,000			
Enforcement officials training	UNEP	75,000			

Awareness and information	UNEP	50,000
outreach		
Sub-total		410,000

<sup>\*</sup>As per decision 60/11(b) and 61/3(e), funds aggregating to US \$55,000

(Last tranche of UNDP component of National CFC Phase-out Plan for Bangladesh) will be used for this component.

21. The Secretariat also sought clarification on the inclusion in the budget of US \$55,000 which was noted as funds from the last tranche for the UNDP component of the National CFC phase-out plan, which is proposed to be integrated into the HPMP. The Secretariat noted that, while these funds could be considered under the HPMP, they would be part of the non-investment activities and therefore subsumed within the HPMP budget and subject to decision 60/44, where such activities when the need is demonstrated shall be calculated at US \$4.5/kg to determine the tonnage associated with them. UNDP clarified that the funds being requested would cover the costs for project monitoring and subsequent verification of targets for tranche requests, and therefore strongly suggested that this could be considered as such.

## Climate impact

- 22. The proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices, enforcement of HCFC import controls and conversion of the assembly sector, will reduce the amounts of HCFC-22 and HCFC-141b used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in approximately 1.8 CO<sub>2</sub>-equivalent tonnes saved. Although a calculation of the impact on the climate was not indicated in the HPMP, the activities planned by Bangladesh, in particular, the phase-out of HCFC-22 in the servicing sectors and its above average efforts to improve servicing practices and reduce refrigerant emissions indicate that it is likely that the country will achieve the 11,299.30 CO<sub>2</sub>-equivalent tonnes saved in emissions into the atmosphere estimated in the 2011-2014 business plan. An assessment of the 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 might provide further data on impact of this sector on climate.
- 23. In the case of Bangladesh the impact on the climate of the reduction in HCFC consumption through the already approved foam project based only on the global warming potential (GWP) values of the blowing agents and their level of consumption before and after conversion is as follows: 183.70 mt of HCFC-141b will be phased out, 113.90 mt of cyclopentane will be phased in, and 128,131 tonnes of CO<sub>2</sub>-equivalent that would have been emitted into the atmosphere will have been avoided

## Co-financing

24. The Secretariat noted that co-financing opportunities for mobilizing additional resources to maximize the environmental benefits of the HPMP for Bangladesh are being explored through UNDP and the Government with the Global Environment Facility (GEF), other multilateral donors and some bilateral partners. While there are no concrete projects being proposed, discussions have already taken place with these potential partners. The Secretariat encouraged UNDP to ensure that the country develops more solid proposals for co-funding especially in stage II of the HPMP.

## 2011-2014 business plans of the Multilateral Fund

25. UNDP and UNEP are requesting US \$1,556,074 plus support cost for the implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$420,725 including support costs is lower than that in the business plan. The total reduction in HCFCs to be achieved by this plan represents 30 per cent of the country's HCFC consumption.

## **Draft** agreement

26. A draft agreement between the Government of Bangladesh and the Executive Committee for the phase-out of consumption of HCFCs is contained in Annex I to the present document.

## RECOMMENDATION

- 27. The Executive Committee may wish to consider:
  - (a) Approving, in principle an additional US \$460,275 consisting of US \$55,000 plus agency support costs of US \$4,125 for UNDP, and US \$355,000 plus agency support costs of US \$46,150 for UNEP, resulting in a total funding level of US \$1,556,074 plus agency support costs for UNDP (US \$90,081) and UNEP (US \$46,150) to cover stage I of the HCFC phase-out management plan for Bangladesh;
  - (b) Noting that the total funding level plus agency support costs includes US \$1,232,030 from an already approved HCFC phase-out project (US \$1,146,074 plus agency support costs of US \$85,956 for UNDP approved at the 62<sup>nd</sup> Meeting for Walton Industries) and will enable the country to reduce HCFC consumption by 30 per cent of the baseline for the period 2011 to 2018;
  - (c) Noting that the Government of Bangladesh had agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption an estimated baseline of 72.65 ODP tonnes, calculated using the actual consumption of 67.75 ODP tonnes and 77.56 ODP tonnes for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol;
  - (d) Noting the deduction of 20.20 ODP tonnes from the starting point for sustained aggregate reduction in HCFC consumption for the project approved at the 62<sup>nd</sup> meeting, and deducting a further 4.33 ODP tonnes of HCFCs for the implementation of stage I of the HPMP;
  - (e) Approving the draft Agreement between the Government of Bangladesh and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;
  - (f) Requesting the Fund Secretariat, once the baseline data were known, to update Appendix 2-A to the Agreement to include the figures for maximum allowable consumption, and to notify the Executive Committee of the resulting change in the levels of maximum allowable consumption; and
  - (g) Approving the first tranche of stage I of the HPMP for Bangladesh, and the corresponding implementation plan, at the amount of US \$319,025, consisting of US \$55,000 plus agency support costs of US \$4,125 for UNDP, and US \$230,000 plus agency support costs of US \$29,900 for UNEP.

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#### Annex I

# DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF BANGLADESH 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 Bangladesh (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 48.12 ODP tonnes by 1 January 2018 in compliance with Montreal Protocol schedules, with the understanding that this figure is to be revised one single time, once the baseline consumption for compliance has been established based on 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, 4.4.3 and 4.5.3 (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 68<sup>th</sup> 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. UNDP 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	45.42		
HCFC-141b	C	I	21.23		
HCFC-142b	C	I	5.72		
HCFC-123	C	I	0.21		
HCFC-124	C	I	0.07		
Total			72.65		

## APPENDIX 2-A: THE TARGETS, AND FUNDING

		2010	2011	2012	2013	2014	2015	2016- 2017	2018	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	NA	NA	NA	72.65	72.65	65.39	65.39	65.39	
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	NA	NA	NA	72.65	72.65	65.39	65.39	48.12	
2.1	Lead IA (UNDP) agreed funding (US\$)	1,146,074	55,000	0	0	0	0	0	0	1,201,074
2.2	Support costs for Lead IA (US\$)	85,956	4,125	0	0	0	0	0	0	90,081
2.3	Cooperating IA (UNEP) agreed funding (US\$)	0	230,000	0	90,000	0	18,000	0	17,000	355,000
2.4	Support costs for cooperating IA (US\$)	0	29,900	0	11,700	0	2,340	0	2,210	46,150
3.1	Total agreed funding (US\$)	1,146,074	285,000	0	90,000	0	18,000	0	17,000	1,556,074
3.2	Total support costs (US\$)	85,956	34,025	0	11,700	0	2,340	0	2,210	136,231
3.3	Total agreed costs (US\$)	1,232,030*	319,025	0	101,700	0	20,340	0	19,210	1,692,305
4.1.1	Total phase-out of HCFC-22 agre	ed to be achieve	ed under this	Agreement	(ODP tonnes	)				3.48
4.1.2	Phase-out of HCFC-22 to be achieved through previously approved projects (ODP tonnes)								n/a	
4.1.3	Remaining eligible consumption of HCFC-22 (ODP tonnes)								41.94	
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)								n/a	
4.2.2	Phase-out of HCFC-141b to be ac	hieved through	previously ap	proved pro	jects (ODP to	onnes)				20.20
4.2.3	Remaining eligible consumption	of HCFC-141b	(ODP tonnes)							1.03

4.3.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)	0.57
4.3.2	Phase-out of HCFC-142b to be achieved through previously approved projects (ODP tonnes)	n/a
4.3.3	Remaining eligible consumption of HCFC-142b (ODP tonnes)	5.16
4.4.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)	0.21
4.4.2	Phase-out of HCFC-123 to be achieved through previously approved projects (ODP tonnes)	n/a
4.4.3	Remaining eligible consumption of HCFC-123 (ODP tonnes)	n/a
4.5.1	Total phase-out of HCFC-124 agreed to be achieved under this Agreement (ODP tonnes)	0.07
4.5.2	Phase-out of HCFC-124 to be achieved through previously approved projects (ODP tonnes)	n/a
4.5.3	Remaining eligible consumption of HCFC-124 (ODP tonnes)	0

<sup>\*</sup>Approved at the 62<sup>nd</sup> meeting.

#### 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 overall monitoring will be the responsibility of the National Ozone Unit (NOU). The consumption will be monitored based on cross-checking the data collected from relevant government departments with data collected, as required, from the relevant importers, distributors and consumers. The NOU will also be responsible for reporting and shall submit the following reports in a timely manner:
  - (a) Annual reports on consumption of substances to be submitted to the Ozone Secretariat;
  - (b) Annual reports on progress of implementation of this Agreement to be submitted to the Executive Committee of the Multilateral Fund; and
  - (c) Project-related reports to 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
- (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

- 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 \$127.02 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.

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