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EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL Sixty-third Meeting Montreal, 25-29 July 2011

#### PROJECT PROPOSAL: RWANDA

This document consists of the comments and recommendations 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

# Rwanda

(I) PROJECT TITLE	AGENCY
HPMP	UNEP (lead), UNIDO

(II) LATEST ARTICLE 7 DATA	Year: 2009	3.8 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)									Year: 2010
Chemical	Aerosol	Foam	Fire fighting	Refrigera	tion	Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123									
HCFC-124									
HCFC-141b									
HCFC-142b									
HCFC-22					4.1				4.1

(IV) CONSUMPTION DATA (ODP tonnes)								
2009 - 2010 baseline/(estimate): 3.9 Starting point for sustained aggregate reductions:								
CONS	CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)							
Already approved:	0.0	Remaining:	2.5					

(V) BUSINESS PLAN		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.2		0.2			0.1			0.6		1.0
	Funding (US \$)	45,987	0	45,987	0	0	40,837	0	0	40,657	0	173,469
UNIDO	ODS phase-out (ODP tonnes)	0.3				0.3					0.1	0.7
	Funding (US \$)	68,936	0	0	0	55,149	0	0	0	0	13,787	137,872

(VI) PROJECT	DATA		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	
Montreal Protocol consumption limits (estimate)			n/a	n/a	3.9	3.9	3.5	3.5	3.5	3.5	3.5	2.5	n/a	
Maximum allow (ODP tonnes)	able consu	nption	n/a	n/a	3.9	3.9	3.5	3.5	3.5	3.5	3.5	2.5	n/a	
Project Costs requested in	UNEP	Project costs	42,000	0	40,000	0	0	30,000	0	30,000	0	28,000	170,000	
principle(US\$)		iple(US\$)	Support costs	5,460	0	5,200	0	0	3,900	0	3,900	0	3,640	22,100
	UNIDO	Project costs	55,000	0	0	0	0	55,000	0	0	0	0	110,000	
		Support costs	4,950	0	0	0	0	4,950	0	0	0	0	9,900	
Total project cos principle (US \$)		d in	97,000	0	40,000	0	0	85,000	0	30,000	0	28,000	280,000	
Total support costs requested in principle (US \$)		10,410	0	5,200	0	0	8,850	0	3,900	0	3,640	32,000		
Total funds requ (US \$)	ested in pri	nciple	107,410	0	45,200	0	0	93,850	0	33,900	0	31,640	312,000	

(VII) Request f	(VII) Request for funding for the first tranche (2011)								
Agency	Funds requested (US \$)	Support costs (US \$)							
UNEP	42,000	5,460							
UNIDO	55,000	4,950							

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 Rwanda, UNEP, as the lead implementing agency, has submitted to the 64<sup>th</sup> Meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP) at a total cost, as originally submitted, of US \$280,000 plus agency support cost of US \$22,100 for UNEP and US \$9,900 for UNIDO, to meet the 35 per cent reduction in HCFC consumption by 2020.
- 2. The first tranche for stage I being requested for the HPMP at this meeting amounts to US \$42,000 plus agency support cost of US \$5,460 for UNEP, and US \$55,000 plus agency support cost of US \$4,950 for UNIDO, as originally submitted.

## **Background**

## **ODS** regulations

- 3. Rwanda has regulations, that cover a licensing and quota system controlling the import of ODS including HCFC and HCFC-based equipment. Rwanda's ODS regulations were established in 2006 and are part of the Environment Management Act. The regulations were revised in 2010 to incorporate HCFC phase-out control measures and a permit system established for the import and export of ODS. Rwanda does not produce HCFCs; therefore ODS are imported into the country.
- 4. The National Ozone Unit (NOU) under the Rwandan Environment Management Authority is responsible for implementing, monitoring and evaluating the activities under the Montreal Protocol including the HPMP. It also coordinates consultations with the National Ozone Committee and key stakeholders involved in the implementation of the national ozone programme. Enforcement of the ODS regulation is undertaken by the National Ozone Unit in close collaboration with the Customs Department, Rwanda Bureau of Standards, Environmental Crime Unit under the National Police and other security agents.

# **HCFC** consumption

- 5. The results of the survey undertaken during the HPMP preparation showed that the country uses mostly HCFC-22 in servicing refrigeration and air-conditioning equipment. There is a general increasing trend in the consumption of HCFC-22 in Rwanda ranging from 5.41 per cent to 7.86 per cent yearly from 2006 to 2009. The drop in equipment prices and the improved economic conditions in the country allowed many end users to buy various types of cheap RAC equipment.
- 6. The consumption of HCFC-22 increased from 53.82 metric tonnes (mt) (3 ODP tonnes) in 2005 to 68.79 mt (3.8 ODP tonnes) in 2009. The survey also indicated that in 2009 there were nearly 108,000 air-conditioning units, 52,000 commercial refrigeration and food processing units, 18,000 industrial and other equipment units installed in the country.
- 7. The 2010 HCFC consumption in Rwanda, according to the survey, increased by 8 per cent from its 2009 consumption and reached the level of 74.29 mt (4.1 ODP tonnes). Table 1 presents data on HCFC consumption extracted from the survey as well as data reported under Article 7 of the Montreal Protocol.

	Artic	ele 7	Survey results			
Year	HCFC-22 (in mt)	HCFC-22 (in ODP tonnes)	HCFC-22 (in mt)	HCFC-22 (in ODP tonnes)		
2005	18.1	1	53.82	3.0		
2006	19	1	56.73	3.1		
2007	25.2	1.4	60.18	3.3		
2008	31.4	1.7	64.91	3.6		
2009	68.79	3.8	68.79	3.8		

Table 1: HCFC-22 consumption from 2005 to 2009

8. HCFC consumption in Rwanda is expected to grow on a yearly basis from 6.1 to 9.8 per cent using an unconstrained growth scenario from 2011 to 2020. Table 2 presents HCFC consumption forecasted up to the year 2020.

Table 2: Forecast consumption of HCFCs

Year		2009*	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
With MP	MT	68.79	74.3	74.3	74.3	71.5	71.5	64.3	64.3	64.3	64.3	64.3	46.5
constraints	ODP	3.8	4.1	4.1	4.1	3.9	3.9	3.5	3.5	3.5	3.5	3.5	2.6
Without MP	MT	68.79	74.3	80.0	87.3	92.7	101.8	109.1	118.2	127.3	138.2	149.1	160.0
constraints	ODP	3.8	4.1	4.4	4.8	5.1	5.6	6	6.5	7	7.6	8.2	8.8

<sup>\*</sup>Actual reported A7 data

#### Sectoral distribution of HCFC

9. HCFCs in Rwanda are used in domestic, commercial and industrial air-conditioning sectors. Table 3 below presents the consumption of refrigerants in the country by sector for the year 2009.

Table 3: Consumption of refrigerants in 2009 by sub-sector

Refrigeration equipment	Total units	Charge	(tonnes)	Servicing Consumption /year (tonnes)		
		Metric	ODP	Metric	ODP	
Air conditioning (unitary/Split systems)	108,000	151.2	8.45	7.24	0.4	
Commercial refrigeration and food processing	52,000	278	15.63	50.75	2.8	
Industrial and other equipment	18,000	29	1.44	10.8	0.6	
Total	178,000	458	25.52	68.79	3.8	

10. The HPMP estimated the servicing need for the equipment using leakage rates of 4.7 per cent, 18.2 per cent and 37.2 per cent depending on the type of end-user. The lower leakage rate (4.7 per cent) was attributed to equipment owned by private holders while equipment owned by the commercial sector was believed to have a higher leakage rate (18.2 per cent) because of the need for more frequent repairs. The highest leakage rate (37.2 percent) is attributed to industrial and other equipment installed in the country. The HPMP noted that most of the unitary/split systems range from 12 British Thermal Unit

(BTU) to 18 BTU and the charge per unit in commercial refrigeration and food processing from 48 BTU to 60 BTU. However, industrial and other equipment that is, mainly used for display purposes, has a low charge ranging from 12 BTU to 18 BTU per unit because most units are small.

- 11. With regard to HCFC-22 prices, the survey results showed that these are lower than the cost of alternative refrigerants such as R-134a, R-404 and R-407. Due to the fact that HCFC-22 is cheaper than the alternative refrigerants, it is used extensively in commercial refrigeration and for almost all servicing requirements.
- 12. The activities under the terminal phase-out management plan (TPMP) in Rwanda included the review of existing ODS regulations, the training programmes for customs officers and refrigeration technicians, the promotion of alternative refrigerants, awareness campaigns, retrofit, recovery and recycling activities, assistance to end-users and provision of tool kits. The remaining activity relates to the incentive programme to end users who still have CFC cooling systems. The training programmes under the TPMP covered 180 refrigeration technicians, 150 customs officers and 35 other law enforcement officers.

# Calculation of estimated baseline

13. The estimated HCFC baseline for compliance was calculated by the country as the average of the 2009 actual consumption reported under Article 7 of 68.79 mt (3.8 ODP tonnes) and 2010 estimated consumption of 74.29 mt (4.1 ODP tonnes), which resulted in an estimated baseline of 71.54 mt (3.9 ODP tonnes).

# HCFC phase-out strategy

- 14. The Government of Rwanda has adopted a two-step strategy to implement its HPMP. It plans to freeze HCFC consumption by 1 January 2013, and reduce HCFC consumption by 10 and 35 per cent by 2015 and 2020 respectively. Thereafter, HCFC phase-out will continue until reaching the overall consumption reduction rate of 97.5 per cent in 2030 and keeping an allowance of 2.5 per cent of the baseline consumption for meeting servicing needs till 2040.
- 15. Rwanda is proposing to meet its compliance targets by implementing both investment and non-investment activities from 2011 to 2020. The non-investment component includes activities such as the training of 500 out of the 800 customs officers in the country; other law enforcement officers on regulations in place to control ODS; and the training of 500 out of 1,000 technicians in the country in good refrigeration practices and retrofitting techniques. The investment component includes technical assistance and provision of equipment for 3 regional recovery, recycling and retrofitting centres.

Table 4: Staged approach for the implementation of the HPMP in Rwanda

HPMP	Programme description	Duration
Overarching strategy	Provision of ozone and climate benefits through the integrated plan for ODS reductions for the refrigeration sector, promotion and adoption of energy efficient alternative technologies	2011- 2030
First Stage	The establishment of safe hydrocarbon and natural refrigerant practices to enable their safe general long term use; activities to curb the increase in HCFC-based refrigerant blends and an incentive programme to retrofit HCFC-based equipment to environmentally friendly alternatives	2011- 2020
Second Stage	Implementation of activities to phase out remaining HCFC consumption based on the use of natural refrigerants	2021-2030

# Cost of the HPMP

16. The total cost of stage I of the HPMP is estimated at US \$280,000 plus agencies' support costs that amounts to US \$32,000 to phase out 25.04 mt (1.38 ODP tonnes) till 2020. Table 5 presents the budget breakdown for stage I of the HPMP.

<u>Table 5: Proposed activities and estimated budget</u>

Description	Agency	2011	2013	2016	2018	2020	TOTAL
Further training of customs and other law enforcement officers and strengthening the customs training schools. Dissemination of the amended ODS regulations	UNEP	15,000	15,000	10,000	10,000	10,000	60,000
strengthening of the three regional retrofitting centres through provision of technical assistance, equipment and incentive programme for access of tool kits, spare parts, alternative fluid and conversion and development of a comprehensive program for reduction of HCFC and carbon emissions in the refrigeration and air conditioning sector	UNIDO	55,000		55,000			110,000
Strengthening AFROPORWA, technical colleges and training of refrigeration technicians in good refrigeration practices	UNEP	15,000	15,000	10,000	10,000	10,000	60,000
Coordination, monitoring and reporting of HPMP activities	UNEP	12,000	10,000	10,000	10,000	8,000	50,000
Total	97,000	40,000	85,000	30,000	28,000	280,000	

#### SECRETARIAT'S COMMENTS AND RECOMMENDATION

# **COMMENTS**

17. The Secretariat reviewed the HPMP for Rwanda 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 60<sup>th</sup> Meeting (decision 60/44), subsequent decisions on HPMPs and the 2011-2014 business plan of the Multilateral Fund.

#### HCFC consumption

18. The Secretariat noted the discrepancies between the HCFC survey results and HCFC consumption data reported under Article 7 from 2005 to 2008 (see Table 1). UNEP advised that these discrepancies resulted from the fact that some importers did not report actual figures over the years because they assumed that by reporting their imports they may be subjected to taxation. Moreover, there was a lack of import controls on HCFC-22. UNEP also indicated that the Government of Rwanda sent a request to the Ozone Secretariat to adjust its Article 7 data to the survey results.

19. The annual rate of increase in HCFC consumption, according to the survey, was estimated at 5.41 per cent in 2006, 6.08 per cent in 2007, 7.86 per cent in 2008 and 5.98 per cent in 2009. The country programme report for 2010 for Rwanda shows a 2010 HCFC consumption of 74.29 mt (4.1 ODP tonnes), representing an 8 per cent increase from its 2009 consumption.

# Starting point for aggregate reduction in HCFC consumption

20. The Government of Rwanda agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the average level of actual reported consumption of 3.8 ODP tonnes in 2009 and estimated 2010 consumption of 4.1 ODP tonnes which results in 3.9 ODP tonnes. The business plan indicated a baseline of 3.9 ODP tonnes.

# Technical and cost issues

- 21. The Secretariat assessed the training programme and noted that UNEP is planning training sessions each year till 2019. The Secretariat considered the possibility of organizing training sessions earlier and grouping them for cost-effectiveness. Consequently, customs and other law enforcement officers, and refrigeration technicians could contribute to HCFC phase-out sooner and more efficiently. UNEP advised that there is no need to conduct most of the training at the beginning of the project because the technologies are evolving and there will be a greater need in future to keep the technicians and the officers up to date with the latest technologies. In addition, due to the high turnover of customs and other law enforcement officers, and annual new recruits, grouping training sessions would not be appropriate.
- 22. The Secretariat further sought information on the equipment provided under the TPMP and to what extent this could be used during the implementation of the HPMP. UNEP indicated that the equipment purchased and delivered to the three retrofit centres established under the TPMP would be insufficient due to the rapid increase in the servicing industry. In order to strengthen these centres with additional servicing equipment to meet the demand, a provision was made in the HPMP to supply additional tool kits for retrofitting, recovery bags and portable recovery machines.
- 23. The Secretariat reviewed the role that the Refrigeration Association (AFROPORWA) may play in meeting HCFC phase-out targets. AFROPORWA will contribute to the establishment and enforcement of a code of conduct, the organization of training for refrigeration technicians, the issuance of certificates to technicians with good refrigeration servicing practices, and the monitoring of refrigeration technician activities. The Secretariat noted that less than 25 per cent of the technicians in the country are registered at AFROPORWA. In addition, the activities of these registered technicians are not fully monitored to enable the AFROPORWA to identify specific practices where improvement is needed. Globally, AFROPORWA has trained 275 certified technicians from public and private institutions in good refrigeration practices. The HPMP will be an opportunity to train additional technicians in good refrigeration practices including retrofitting techniques, hydrocarbon technologies, and to promote alternative technologies that have high energy efficiency with low-global-warming-potential (GWP).
- 24. In line with decision 60/44, the funding for the implementation of Rwanda's HPMP has been agreed at US \$280,000 (excluding agencies' support costs) as shown in Table 5 above, and covers activities for stage I of the HPMP, which requires a 35 per cent reduction by 2020. These resources will allow the country to phase out 25.04 mt (1.38 ODP tonnes) by 2020.
- 25. According to decision 60/44, if the country uses an estimated baseline as its starting point, this may be adjusted to the actual baseline figures once these are known in 2011. The Secretariat drew UNEP's attention to the fact that should the calculation of the actual baseline for Rwanda be different to that currently used in the HPMP, the corresponding funds will be adjusted accordingly if the revised consumption level places the country in a different funding category. The adjustments will be made for future tranches of the HPMP.

# Co-financing

26. 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, UNEP explained that, in addition to resources provided under the institutional strengthening programme, the Government of Rwanda will contribute to the cost of premises and utilities for the NOU given the fact that the country is planning to increase the staff under the Project Monitoring Unit (PMU) and the size of its premises. It will also support the research on ozone related issues and organize financial audits on a yearly basis.

# Impact on the climate

- 27. 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 the savings of approximately 1.8 CO<sub>2</sub>-equivalent tonnes saved. A preliminary estimation of the impact on the climate as calculated by Rwanda in its HPMP indicates that 77,712 CO<sub>2</sub>-equivalent tonnes would not be emitted into the atmosphere if all HCFC-22 based equipment in the country is retrofitted to HFC-134a, or 284,135 CO<sub>2</sub>-equivalent tonnes if retrofitted to hydrocarbon. These figures are higher than the potential climate impact of the HPMP indicated in the 2011-2014 business plan of 5,715 CO<sub>2</sub>-equivalent tonnes. This is because the value calculated in the business plan is based on the climate impact of a 10 per cent reduction in HCFC consumption.
- 28. 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

29. UNEP and UNIDO are requesting US \$280,000 plus support costs for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$152,610 including support cost is below the total amount in the business plan of US \$161,000. Based on the estimated HCFC baseline consumption in the servicing sector of 71.54 mt, Rwanda's allocation up to the 2020 35 per cent reduction should be US \$280,000 in line with decision 60/44.

#### Draft agreement

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

# RECOMMENDATION

- 31. The Executive Committee may wish to consider:
  - (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Rwanda for the period 2011 to 2020, at the amount of US \$312,000, consisting of US \$170,000, plus agency support costs of US \$22,100 for UNEP, and US \$110,000, plus agency support costs of US \$9,900 for UNIDO;
  - (b) Noting that the Government of Rwanda had agreed to establish an estimated baseline of 3.9 ODP tonnes as its starting point for sustained aggregate reduction in HCFC consumption, calculated using actual consumption of 3.8 ODP tonnes reported for 2009 and consumption of 4.1 ODP tonnes estimated for 2010;

- (c) Approving the draft Agreement between the Government of Rwanda and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;
- (d) 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 of any potential related impact on the eligible funding level, with any adjustments needed being made when the next tranche was submitted; and
- (e) Approving the first tranche of stage I of the HPMP for Rwanda, and the corresponding implementation plan, at the amount of US \$107,410, consisting of US \$42,000, plus agency support costs of US \$5,460 for UNEP, and US \$55,000, plus agency support costs of US \$4,950 for UNIDO.

#### Annex I

# DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF RWANDA 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 Rwanda (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 2.5 ODP tonnes by 1 January 2020 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, with the funding to be adjusted accordingly, as per decision 60/44.
- 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 which exceeds the level defined in row 1.2 of Appendix 2-A ("Maximum allowable total consumption of Annex C, Group I Substances") 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 which 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 ("The Targets, and Funding") 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. 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 ("The Targets, and Funding") 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 60 days prior to the applicable Executive Committee meeting set out in the Funding Approval Schedule:
  - (a) That the Country has met the Targets for all relevant years. Relevant years are all years since the year in which the hydrochlorofluorocarbons phase-out management plan (HPMP) was approved. Exempt are 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;
  - (b) That the meeting of these Targets has been independently verified, except if 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 and received approval from the Executive Committee for an annual implementation plan in the form of Appendix 4-A ("Format of Implementation Reports and Plans") 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 in an annual implementation plan and approved by the Executive Committee as described in sub-paragraph 5(d) above. Major changes would relate to issues potentially concerning the rules and policies of the Multilateral Fund; changes which would modify any clause of this Agreement; changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches; and 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 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 annual implementation report; and
  - (c) Any remaining funds will be returned to the Multilateral Fund upon closure of the last tranche of the plan.
- 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 carrying out the activities of the overall plan with the changes approved as part of the subsequent submissions, 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.
- 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 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 information necessary to verify compliance with this Agreement.
- 14. The completion 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 has been specified in Appendix 2-A. Should at that time activities be still outstanding 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 continue until the time of the completion if not specified by the Executive Committee otherwise.

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	С	I	3.9
Total	C	I	3.9

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

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol reduction												
	schedule of Annex C,	n/a	n/a	n/a	3.9	3.9	3.5	3.5	3.5	3.5	3.5	2.5	n/a
	Group I substances	11/ 4	11/ 4	11/α	3.7	3.7	3.3	3.3	3.3	3.3	3.3	2.3	11/ 4
	(ODP tonnes)												
	Maximum allowable total												
	consumption of Annex C,	n/a	n/a	n/a	3.9	3.9	3.5	3.5	3.5	3.5	3.5	2.5	n/a
	Group I substances	11, 60	11/ 44	11/ 44	0.7	,	0.0	0.0	0.0	0.0	0.0	2.0	11/ 41
	(ODP tonnes)		42.000		40.000			20.000		20.000		• • • • • •	1=0.000
2.1	Lead IA (UNEP) agreed		42,000	0	40,000	0	0	30,000	0	30,000	0	28,000	170,000
	funding (US \$)		- 1.0		7.200			2000		2.000		2 - 10	22.100
2.2	Support costs for Lead IA		5,460	0	5,200	0	0	3,900	0	3,900	0	3,640	22,100
	(US \$)												110 000
	Cooperating IA (UNIDO)		55,000	0	0	0	0	55,000	0	0	0	0	110,000
	agreed funding (US \$)		40.50					40.50					
2.4	Support costs for		4,950	0	0	0	0	4,950	0	0	0	0	9,900
	Cooperating IA (US \$)												
3.1	Total agreed funding (US \$)		97,000	0	40,000	0	0	85,000	0	30,000	0	28,000	280,000
3.2	Total support costs (US \$)		10,410	0	5,200	0	0	8,850	0	3,900	0	3,640	32,000
3.3	Total agreed costs (US \$)		107,410	0	45,200	0	0	93,850	0	33,900	0	31,640	312,000
4.1.1	.1 Total phase-out of HCFC-22 under this agreement (ODP tonnes)											1.4	
4.1.2	.2 Phase-out of HCFC-22 in previously approved projects (ODP tonnes)										0.0		
4.1.3	.3 Remaining eligible consumption for HCFC-22 (ODP tonnes)										2.5		

#### APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval not earlier than the second 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 regarding the progress since the approval of the previous tranche, reflecting on 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 further highlight successes, experiences and challenges related to the different

activities included in the Plan, reflecting on changes in the circumstances in the Country, and providing other relevant information. The report should also include information about and justification for any changes vis-à-vis the previously submitted tranche plan, 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 about 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 the planned submission of the next tranche request, highlighting their interdependence, and taking into account experiences made and progress achieved in the implementation of earlier tranches. The description should also include a reference to the overall plan and progress achieved, as well as any possible changes to the overall plan foreseen. The description should cover the years specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain any revisions to the overall plan which were found to be necessary;
- (d) A set of quantitative information for the report and plan, submitted into a database. As per the relevant decisions of the Executive Committee in respect to the format required, the data should be submitted online. 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), and will cover the same time periods and activities; it will also capture the quantitative information regarding any necessary revisions of the overall plan as per sub-paragraph 1(c) above. While the quantitative information is required only for previous and future years, the format will include the option to submit in addition information regarding the current year if desired by the Country and the Lead IA; and
- (e) An Executive Summary of about five paragraphs, summarizing the information of above sub-paragraphs 1(a) to 1(d).

#### APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

- 1. All the monitoring activities will be coordinated and managed through the National Ozone Unit, which is included within this HPMP.
- 2. The Lead IA will have a particularly prominent role in the monitoring arrangements because of its mandate to monitor ODS imports, whose records will be used as a crosschecking reference in all the monitoring programmes for the different projects within the HPMP. This organization, along with the cooperating IA will also undertake the challenging task of monitoring illegal ODS imports and exports with advising the appropriate national agencies through the National Ozone Office as relevant.

#### APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

- 1. The Lead IA will be responsible for a range of activities. These can be specified in the project document further, but include 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 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 organization 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 further, but include at least the following:
  - (a) Providing policy development assistance 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.