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

PROJECT PROPOSAL: JAMAICA

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

Jamaica

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

(II) LATEST ARTICLE 7 DATA	Year: 2009	18.2 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2010			
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption		
				Manufacturing	Servicing						
HCFC123											
HCFC124											
HCFC141b		3.5									3.5
HCFC142b											
HCFC22					5.2						5.2

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline estimate:	13.5	Starting point for sustained aggregate reductions:	13.5
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	0.0	Remaining:	6.4

(V) BUSINESS PLAN		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	1.8	0.0	1.3	0.0	0.0	1.3	0.0	0.0	0.4	0.0	4.8
	Funding (US \$)	224,407	0	180,600	0	0	180,600	0	0	60,200	0	645,807

(VI) PROJECT DATA			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits (estimate)			n/a	13.5	13.5	13.5	12.2	12.2	12.2	12.2	12.2	8.8	n/a
Maximum allowable consumption (ODP tonnes)			n/a	13.5	13.5	12.2	8.9	8.9	8.9	8.9	8.9	6.4	n/a
Project Costs requested in principle(US\$)	UNDP	Project costs	229,450		44,500		45,500		42,000			43,000	404,450
		Support costs	17,209		3,338		3,413		3,150			3,225	30,335
	UNEP	Project costs	6,000		20,000		5,000		5,000			5,000	41,000
		Support costs	780		2,600		650		650			650	5,330
Total project costs requested in principle (US \$)			235,450		64,500		50,500		47,000			48,000	445,450
Total support costs requested in principle (US \$)			17,989		5,938		4,063		3,800			3,875	35,665
Total funds requested in principle (US \$)			253,439		70,438		54,563		50,800			51,875	481,115

(VII) Request for funding for the first tranche (2011)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNDP	229,450	17,209
UNEP	6,000	780

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 Jamaica UNDP, as the lead implementing agency, has submitted to the 64th Meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP) at a total cost of US \$655,450 plus agency support costs of US \$53,394 (i.e., US \$578,450 and agency support costs of US \$43,384 for UNDP, and US \$77,000 and agency support costs of US \$10,010 for UNEP), as originally submitted. Implementation of the activities proposed in stage I of the HPMP will result in the phase-out of 8.3 ODP tonnes of HCFCs, enabling the country to comply with the Montreal Protocol's 35 per cent reduction in HCFC consumption by 2020.

2. The first tranche for stage I being requested at this meeting amounts to US \$346,450 plus agency support costs of US \$25,984 for UNDP and US \$14,000 plus agency support costs of US \$1,820 for UNEP, as originally submitted.

Background

3. The total population of Jamaica was estimated at 2,847,232 inhabitants in 2010. About 53 per cent of the population live in urban areas; 92 per cent of households are connected to the electricity grid.

ODS regulations

4. Jamaica has an operational licensing system to monitor and control ODS. Several Ministerial orders under the Trade Act have been promulgated, including a labelling requirement on ODS-based equipment/products; a ban on the importation of CFC-based equipment; and a ban on the importation of vehicles manufactured before 1993. The Government of Jamaica through the National Environment and Planning Agency has drafted a revision of the ODS regulations to include HCFCs. Quotas for HCFCs will be issued once the HCFC baseline for compliance has been established. The National Ozone Unit (NOU) is responsible for implementing, monitoring and evaluating the activities under the Montreal Protocol, and coordinating with all stakeholders involved in the implementation of the ozone programmes, including the HPMP.

HCFC consumption and sector distribution

5. The two HCFCs consumed in the country are HCFC-22, used for servicing refrigeration and air-conditioning systems, and HCFC-141b used as a blowing agent for the manufacturing of foam products. The major increase in HCFC consumption in 2007 was due to the considerable investments that were made in Jamaica for hosting the Cricket World Cup that year (i.e., installation of HCFC-22 based refrigeration equipment). Furthermore, the consumption of HCFC-141b was first reported under Article 7 in 2009 (Table 1). Based on the consumption data reported under Article 7, the HCFC baseline for compliance has been estimated at 13.5 ODP tonnes; however, based on the consumption data gathered during the preparation of the HPMP for 2009 and 2010, the HCFC baseline would be 15.4 ODP tonnes. The Government of Jamaica had already requested to change the level of HCFC consumption it had reported under Article 7 to that obtained through the survey for the preparation of the HPMP.

Table 1: HCFC consumption in Jamaica

Year	Data from the survey HPMP			Article 7 data
	HCFC-22	HCFC-141b	Total	
Metric tonnes				
2006				12.7
2007	250.0	27.0	277.0	25.4
2008	192.2	30.0	222.2	125.8
2009	214.2	32.0	246.2	297.6
2010	217.8	32.0	249.8	126.6
ODP tonnes				
2006				0.7
2007	13.8	3.0	16.8	1.4
2008	10.6	3.3	13.9	6.9
2009	11.8	3.5	15.3	18.2
2010	12.0	3.5	15.5	8.7

6. About 67 per cent of the total consumption of HCFC-22 is used for servicing domestic and split air-conditioning systems and 27 per cent for servicing commercial and industrial refrigeration equipment. The remaining 6 per cent is for servicing other HCFC-based refrigeration equipment (including chillers and containers).

7. In total, 33 mt (3.6 ODP tonnes) of HCFC-141b are used by only one enterprise, Seal Sprayed Solutions, for the production of sprayed polyurethane foam used in roofing systems, insulation and water proofing and sealing. The amount of chemicals used by the enterprise varies considerably depending on customer demand. These chemicals are imported from systems houses located in Mexico. The company operates four spray foam machines (11 kg/min each). No other HCFC-141b-based foam enterprises were identified in the country.

8. The forecast of HCFC-22 consumption in Jamaica 2011-2020 is shown in Table 2.

Table 2. 2011-2020 forecast of HCFC-22 consumption in Jamaica

Year	2010*	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Metric tonnes											
Unconstrained	217.8	255.2	270.5	286.7	303.9	322.1	341.5	362.0	383.7	406.7	431.1
Constrained	217.8	255.2	270.5	248.0	248.0	223.2	223.2	223.2	223.2	223.2	161.2
ODP tonnes											
Unconstrained	12.0	14.0	14.9	15.8	16.7	17.7	18.8	19.9	21.1	22.4	23.7
Constrained	12.0	14.0	14.9	13.6	13.6	12.3	12.3	12.3	12.3	12.3	8.9

(*) HCFC-22 consumption reported under the HPMP.

9. The current prices of HCFCs and alternative refrigerants per kilogram in the country are: US \$4.06 for HCFC-22, US \$8.14 for HCFC-404A, US \$9.73 for HCFC-406A, US \$10.47 for HCFC-407C, US \$5.5 for HCFC-408A, US \$9.84 for HCFC-409A, US \$9.04 for HFC-134a and US \$9.78 for HFC-410a. Given the low price of HCFC-22 compared to any other refrigerant available in the country, it is used extensively for servicing requirements.

HCFC phase-out strategy

10. The objective of the HPMP for Jamaica is to meet all of the Montreal Protocol's HCFC control targets on time. The HCFC's overarching strategy developed by the Government is based on the following key interventions:

- (a) Capacity-building for refrigeration technicians to promote good refrigeration servicing practices; recovery and reuse of refrigerants; handling and use of natural refrigerants and retrofitting equipment to non-ODS technologies;
- (b) Distribution of basic service tools, recovery/recycling equipment and retrofit kits (particularly for the conversion of HCFC-based equipment to hydrocarbon technology) to refrigeration technicians;
- (c) Converting the HCFC-141b-based foam manufacturing enterprise to non-HCFC technology;
- (d) Extending the regulatory framework to monitor and control trade in ODS and related technologies; training of enforcement officers in ensuring compliance with the expanded regulatory regime; introducing market-based incentives/disincentives to encourage wider applications of non-ODS, environmentally friendly refrigerants; development of policies for the safe handling, transportation and storage of refrigerants;
- (e) Monitoring, evaluation and reporting.

Conversion of the foam enterprise

11. Based on technical and economic considerations of available non-HCFC technologies, the enterprise decided to replace HCFC-141b used as a blowing agent by methyl formate in pre-blended polyol systems that will be purchased from systems houses in Mexico (the Government of Mexico has submitted stage 1 of the HPMP to the 64th Meeting (UNEP/OzL.Pro/ExCom/64/39), including a foam project for retrofitting all systems houses to allow the production of methyl formate-based polyols). Capital costs are requested for retrofitting the existing four spray foam dispensers (US \$20,000); trials, testing and training (US \$12,000); technology transfer (US \$20,000) and contingencies (US \$5,200). Incremental operating costs are estimated at US \$38,250. The cost effectiveness is US \$2.89/kg.

Cost of the HPMP

12. The total cost for the implementation of stage 1 of the HPMP as submitted is estimated at US \$655,450 plus agency support costs of US \$53,394 to achieve the 35 per cent reduction in HCFC-22 consumption and the complete phase-out of HCFC-141b. The amount allocated for the phase-out of 4.63 ODP tonnes of HCFC in the refrigeration servicing and air-conditioning sector, and for the investment component for the phase-out of 3.63 ODP tonnes of HCFC-141b used in the manufacturing sector, are US \$560,000 and US \$95,450 (excluding support costs) respectively. Table 2 presents the allocated funds for activities planned under the HPMP.

Table 3: Total cost of stage 1 of the HPMP for Jamaica (US \$)

Description	2011	2013	2015	2017	2020	Total
Refrigeration servicing						
Training for technicians	40,500	19,000	20,000	19,000	19,000	117,500
Recovery/recycling	98,000	12,500	13,000	12,000	12,500	148,000
Technical assistance (retrofit)	101,500	15,000	15,500	15,000	15,500	162,500
Policy institutional framework	14,000	33,000	15,000	10,000	5,000	77,000
Monitoring, evaluation, reporting	11,000	11,000	11,000	11,000	11,000	55,000
Sub-total	265,000	90,500	74,500	67,000	63,000	560,000
Conversion of foam enterprise	95,450					95,450
Total	360,450	90,500	74,500	67,000	63,000	655,450

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

13. The Secretariat reviewed the HPMP for Jamaica in the context of the guidelines for the preparation of HPMPs (decision 54/39), the criteria for funding HCFC phase-out in the consumption sector agreed at the 60th Meeting (decision 60/44) and subsequent decisions on HPMPs made at the 62nd and 63rd meetings.

Issues related to HCFC consumption

14. Since 2001, the HCFC-22 data reported by the Government of Jamaica under Article 7 of the Montreal Protocol has shown major fluctuations. UNDP explained that the ODS regulatory framework established in 1999 was applied only to CFCs; since no import controls were applied for HCFCs, the level of HCFC consumption reported was based on estimates. Furthermore, from 2009 the consumption of HCFC-141b contained in imported pre-blended polyols used by Seal Sprayed Solutions, the only foam enterprise identified during the survey for the preparation of the HPMP amounting to 32.0 mt (3.5 ODP tonnes) has been reported as consumption under Article 7 of the Montreal Protocol.

15. Data discrepancies were also found in between HCFC-22 data reported under Article 7 and that from the survey for 2009 and 2010, which would result in two different baselines, i.e., 13.5 ODP tonnes based on Article 7 data and 15.4 ODP tonnes based on the data in the survey. UNDP informed that the Government of Jamaica will resubmit the data for 2010 to the Ozone Secretariat based on the HCFC consumption data collected during the preparation of the HPMP. The Secretariat informed UNDP that any revision to the reported data for 2009 and/or 2010 should follow the methodology for revision of baseline data adopted by the Parties to the Montreal Protocol at their 15th Meeting (decision XV/19) (i.e., the request should be submitted for consideration by the Implementation Committee).

Refrigeration servicing sector

16. The Secretariat reviewed the technical proposal and considered to what extent the funds allocated for the purchase of recovery machines could be reduced to enable the acquisition of additional tools for servicing equipment. UNDP advised that, although during the HPMP preparation technicians had argued that the availability of recovery machines would be central to their efforts to reduce HCFC consumption, it would consider a more flexible technical assistance programme that could be adapted to the circumstances prevailing during the implementation time frame. UNDP also indicated that the country would pursue its consultation with the service industry to assess the need for more flexibility in fund allocation based on potential changes in the servicing sector and/or priorities between the time of the initial consultations and the procurement of the equipment.

17. Based on the data gathered through the survey for the preparation of the HPMP, the estimated baseline for the refrigeration servicing sector would be 216.0 mt, which would allow for a total funding of up to US \$560,000 (decision 60/44(f)(xii)). However, based on the actual data reported under Article 7, the baseline for the refrigeration servicing sector would be 179.1 mt (i.e., 263.61 mt in 2009 and 94.61 mt in 2010), which would allow for a maximum funding of US \$350,000. UNDP indicated that the difference in the funding level would be co-financed from other sources in case the Implementation Committee does not accept the resubmission of the 2010 HCFC consumption data for Jamaica, and that the Government of Jamaica would have the flexibility to adjust project activities within the funding available. However, if the Implementation Committee revised the baseline on the basis of the consumption data gathered during the preparation of the HPMP, the Government expects the additional US \$210,000 to be provided during implementation of stage I to cover the higher level of consumption eligible. Therefore, the activities in the servicing sector were adjusted as shown in Table 3.

Table 4. Revised cost of the refrigeration servicing activities (US \$)

Description	2011	2013	2015	2017	2020	Total
Refrigeration servicing						
Training for technicians	19,500	13,000	14,000	13,000	13,000	72,500
Recovery/recycling	63,000	12,500	13,000	12,000	12,500	113,000
Technical assistance (retrofit)	46,500	14,000	13,500	12,000	12,500	98,500
Policy institutional framework	6,000	20,000	5,000	5,000	5,000	41,000
Monitoring, evaluation, reporting	5,000	5,000	5,000	5,000	5,000	25,000
Total	140,000	64,500	50,500	47,000	48,000	350,000

Foam project

18. In reference to the foam conversion project, the Secretariat noted that UNDP contacted all known polyurethane importers, who could not identify additional users. The Secretariat informed UNDP that all foam users must be identified during the stage I of the HPMP and that any foam user that was not included in stage I of the HPMP would not be eligible for funding.

19. Upon a request for clarification on the requests for trials and testing, and technology transfer, given that the main use by the enterprise was for spray foam, UNDP explained that implementation of the new technology requires an initial trial based on a standard formulation for the applications used by the enterprise followed by a second trial to adjust and fine-tune the mixture of chemicals. Technology transfer includes instructing the systems house in the preparation of new formulations, attending and guiding the trials at the enterprise, process and safety training of the enterprise, a safety audit once the enterprise is fully converted, and provision of a certificate of completion and preparation of a final report. UNDP also indicated that the Government of Jamaica will ban the import of HCFC-141b contained in pre-blended polyol systems once the investment project has been completed.

Impact on the climate

20. A calculation of the impact on the climate of the HCFC-141b used by the foam enterprise in Jamaica, based only on the GWP values of the blowing agents and their level of consumption before and after conversion, is as follows: 33 mt of HCFC-141b will be phased out, 16.0 tonnes of methyl formate will be phased in, and 23,605 tonnes of CO₂ that would have been emitted into the atmosphere will have been avoided (Table 5).

Table 5. Calculation of the impact on the climate

Substance	GWP	Tonnes/year	CO ₂ -eq (tonnes/year)
Before conversion			
HCFC-141b	725	33	23,925
After conversion			
Methyl formate	20	16	320
Net impact			(23,605)

21. Furthermore, 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. A preliminary estimate of the impact on the climate as calculated by Jamaica in its HPMP indicates that 373,343-CO₂-equivalent tonnes would not be emitted into the atmosphere, assuming that 190 mt of HCFC-22 in the country will be phased out. This figure is higher than the potential climate impact of the HPMP indicated in the 2011-2014 business plan of 13,890 CO₂-equivalent tonnes. This is because the value calculated in the business plan is based on the 10 per cent climate impact reduction of the amount of HCFCs to be potentially phased out.

22. A more precise forecast of the impact on the climate of the activities in the servicing sector is presently not available. The impact might be established through an assessment of implementation reports by, *inter alia*, comparing the levels of refrigerants used annually from the beginning of HPMP implementation, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22-based equipment being retrofitted.

Co-financing

23. In response to decision 54/39(h) on potential financial incentives and opportunities for additional resources to maximize the environmental benefits from HPMPs pursuant to paragraph 11(b) of decision XIX/6 of the Nineteenth Meeting of the Parties, UNEP explained that the Government of Jamaica is engaged at the regional level in exploring support for transition of low-GWP refrigerants.

2011-2014 business plan of the Multilateral Fund

24. UNDP and UNEP are requesting US \$445,450 plus support costs for the implementation of stage I of the HPMP. The total amount requested for the 2011-2014 period of US \$323,876, including support costs, is below that in the business plan. Based on the estimated HCFC baseline consumption in the servicing sector of 179.1 mt, Jamaica's allocation up to the 2020 phase-out should be US \$350,000 in line with decision 60/44 plus US \$95,450 for the investment project.

Draft Agreement

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

RECOMMENDATION

26. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Jamaica for the period 2011 to 2020, at the amount of US \$481,115, consisting of US \$404,450, plus agency support costs of US \$30,335 for UNDP, and US \$41,000, plus agency support costs of US \$5,330 for UNEP, on the understanding that:
 - (i) US \$350,000 was provided to address HCFC consumption in the refrigeration servicing sector to reach up to and including the 35 per cent reduction in 2020 in line with decision 60/44; and
 - (ii) US \$95,450 was provided for the investment component for the phase-out of 3.6 ODP tonnes of HCFC-141b used in the manufacturing sector.
- (b) Noting that the Government of Jamaica had agreed to establish an estimated baseline of 13.5 ODP tonnes as its starting point for sustained aggregate reduction in HCFC consumption, calculated using actual consumption of 18.2 ODP tonnes reported for 2009 and 8.7 ODP tonnes reported for 2010;
- (c) Approving the draft Agreement between the Government of Jamaica 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 draft Agreement to include the figures for maximum allowable

consumption, and to notify the Executive Committee of the resulting 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 Jamaica, and the corresponding implementation plan, at the amount of US \$253,439, consisting of US \$229,450 plus agency support costs of US \$17,209 for UNDP, and US \$6,000, plus agency support costs of US \$780 for UNEP.

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Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF JAMAICA 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 Jamaica 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 6.4 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.
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 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 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. UNDP has agreed to be the lead implementing agency (the “Lead IA”) and UNEP has agreed to be the cooperating implementing agency/agencies (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 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 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	C	I	9.9
HCFC-141b	C	I	3.6
Total	C	I	13.5

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	13.5	13.5	13.5	12.2	12.2	12.2	12.2	12.2	8.8	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	13.5	13.5	12.2	8.9	8.9	8.9	8.9	8.9	6.4	n/a
2.1	Lead IA UNDP agreed funding (US \$)	229,450		44,500		45,500		42,000			43,000	404,450
2.2	Support costs for Lead IA (US \$)	17,209		3,338		3,413		3,150			3,225	30,335
2.3	Cooperating IA UNEP agreed funding (US \$)	6,000		20,000		5,000		5,000			5,000	41,000
2.4	Support costs for Cooperating IA (US \$)	780		2,600		650		650			650	5,330
3.1	Total agreed funding (US \$)	235,450		64,500		50,500		47,000			48,000	445,450
3.2	Total support cost (US \$)	17,989		5,938		4,063		3,800			3,875	35,665
3.3	Total agreed costs (US \$)	253,439		70,438		54,563		50,800			51,875	481,115
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)											3.5
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)											0.0
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)											6.4
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)											3.6
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)											0.0
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)											0.0

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. The National Ozone Unit (NOU), which is located within the National Environment and Planning Agency (NEPA), will be responsible for the day to day execution of project activities. In carrying out this function, the NOU will follow the supervision and reporting procedures and structures established by the government to manage the Agency. In this regard, the highest policy responsibility rests with the Minister with responsibility for NEPA while at the technical level, responsibility resides with the Chief Executive Officer of NEPA (head of NEPA).

2. Periodically the government, in collaboration with the Lead IA will convene monitoring missions to provide independent verification of project outputs, achievement of targets and financial management. The missions will also undertake an overall project evaluation and make recommendations, if necessary for further action to achieve target phase out levels.

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.