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ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-third Meeting
Montreal, 4-8 April 2011

PROJECT PROPOSAL: MALI

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/UNDP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Mali

| (I) PROJECT TITLE | AGENCY |
|---|-------------------|
| HCFC phase-out management plan (stage I, first tranche) | UNDP, UNEP (lead) |

| (II) LATEST ARTICLE 7 DATA | Year: 2009 | 14.4 (ODP tonnes) |
|----------------------------|------------|-------------------|
|----------------------------|------------|-------------------|

| (III) LATE | ST COUN | TRY PE | ROGRAMM | | | | Year: 2009 | | |
|------------|---------|--------|---------|-------------------------|----------|---------|------------|-----|--------------|
| Chemical | Aerosol | Foam | Fire | Refrig | geration | Solvent | Process | Lab | Total sector |
| | | | | Manufacturing Servicing | | | | | |
| HCFC-123 | | | | | | | | | |
| HCFC-124 | | | | | | | | | |
| HCFC-141b |) | | | | | | | | |
| HCFC-142b |) | | | | | | | | |
| HCFC-22 | | | | | 3.6 | | | | 3.6 |

| (IV) CONSUMPTION DATA (ODP tonnes) | | | | | | | | | | |
|---|---------|----------------------------------|--|--|--|--|--|--|--|--|
| 2009 - 2010 baseline (estimate): 15.0 Starting point for sustained aggregate reductions: 15.0 | | | | | | | | | | |
| CONSUM | PTION E | LIGIBLE FOR FUNDING (ODP tonnes) | | | | | | | | |
| Already approved: 0.0 Remaining: | | | | | | | | | | |

| (V) BUSINESS PLAN | | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|-------------------|-------------------------------|--------|------|--------|------|------|--------|------|--------|--------|--------|---------|
| UNDP | ODS phase-out (ODP tonnes) | 0.8 | 0.0 | 0.8 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.3 | 0.0 | 2.6 |
| | Funding (US \$) | 90,300 | | 90,300 | | | 90,300 | | | 30,100 | | 301,000 |
| UNEP | ODS phase-out (ODP tonnes) | 0.7 | | 0.7 | | | 0.5 | | 0.5 | | 0.3 | 2.6 |
| | Funding (US \$) | 79,100 | | 79,100 | | | 63,280 | | 63,280 | | 31,640 | 316,400 |

| (VI) PROJECT I | DATA | | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|--|----------------|------------------|---------|-------|--------|------|--------|---------|-------|--------|-------|--------|---------|
| Montreal Protocol consumption limits (estimate) | | n/a | n/a | 15 | 15 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 9.8 | | |
| Maximum allowab (ODP tonnes) | ole consump | tion | n/a | n/a | 15 | 15 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 9.8 | |
| Project Costs requested in | UNEP | Project costs | 65,000 | | 55,000 | | | 80,000 | | 52,000 | | 28,000 | 280,000 |
| principle(US \$) | | Support costs | 8,450 | | 7,150 | | | 10,400 | | 6,760 | | 3,640 | 36,400 |
| | UNDP | Project costs | 160,000 | | | | | 92,000 | | | | 28,000 | 280,000 |
| | | Support costs | 12,000 | | | | | 6,900 | | | | 2,100 | 21,000 |
| Total project costs principle (US \$) | requested is | n | 225,000 | | 55,000 | | | 172,000 | | 52,000 | | 56,000 | 560,000 |
| Total support costs requested in principle (US \$) | | 20,450 | | 7,150 | | | 17,300 | | 6,760 | | 5,740 | 57,400 | |
| Total funds reques (US \$) | sted in princi | iple | 245,450 | | 62,150 | | | 189,300 | | 58,760 | | 61,740 | 617,400 |

| (VII) Request for funding for the first tranche (2011) | | | | | | | | | |
|--|-------------------------|-----------------------|--|--|--|--|--|--|--|
| Agency | Funds requested (US \$) | Support costs (US \$) | | | | | | | |
| UNDP | 160,000 | 12,000 | | | | | | | |
| UNEP | 65,000 | 8,450 | | | | | | | |

| 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 Mali, UNEP, as the lead implementing agency, has submitted to the 63rd Meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP) at a total cost, as originally submitted, of US \$560,000 (excluding agencies' support costs). The Government of Mali is requesting US \$280,000 plus agency support costs of US \$36,400 for UNEP and US \$280,000 plus agency support costs of US \$21,000 for UNDP to meet the 35 per cent reduction by 2020.
- 2. The first tranche for stage I being requested at this meeting amounts to US \$65,000 plus agency support costs of US \$8,450 for UNEP and US \$160,000 plus agency support costs of US \$12,000 for UNDP, as originally submitted.

Background

ODS regulations

- 3. Mali has regulations and a licensing and quota systems to monitor the import, trade, use and re-export of ODS and ODS-based equipment including HCFCs. The sub-regional regulation for the UEMOA (Union Economique et Monétaire de l'Ouest Africain) harmonizes the regulations of member countries concerning the importation, marketing, use and re-export of substances that deplete the ozone layer and elimination of equipment using ODS, including HCFCs and HCFC-based equipment, thereby controlling ODS movement among these countries. These sub-regional regulations have been harmonised to include the accelerated HCFC phase-out control measures agreed in 2007.
- 4. The National Ozone Unit (NOU) under the authority of the Ministry of the Environment is responsible for implementing, monitoring and evaluating the activities under the Montreal Protocol including the HPMP.

HCFC consumption

- 5. The survey results showed that the country uses mostly HCFC-22 in servicing refrigeration and air conditioning units. There is a general increasing trend in consumption of HCFC-22 consumed by Mali. In 2005 and 2006, the yearly increase was around 20 per cent while in 2007 and 2008 the HCFC consumption increased by 8 per cent annually. HCFC consumption in 2009 increased by 25 per cent from its 2008 consumption.
- 6. HCFC-22 consumption increased from 146.6 metric tonnes (mt) (8.06 ODP tonnes) in 2005 to 262.4 mt (14.43 ODP tonnes) in 2009. In 2009, the survey showed that there were nearly 383,124 domestic air conditioning units, 300 industrial refrigeration, 37 central air-conditioning, and 33,243 commercial refrigeration units installed in the country.
- 7. The 2010 HCFC consumption in Mali was estimated using a growth rate of 7.5 per cent from its 2009 consumption amounting to 282.1 mt (15.52 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. The Government of Mali informed UNEP that the data reported under Article 7 do not reflect Mali's HCFC consumption; therefore the survey results are more accurate. Based on these survey results, the Government of Mali will send a request to the Ozone Secretariat to rectify HCFC consumption reported from 2005 to 2008 as per survey results.

| | Artio | cle 7 | Survey results | | | | |
|------|----------------------------------|-------------------------------|----------------------------------|-------------------------------|--|--|--|
| Year | HCFC-22 (in metric tonnes) | HCFC-22 (in ODP tonnes) | HCFC-22 (in metric tonnes) | HCFC-22 (in ODP tonnes) | | | |
| 2005 | 45.45 | 2.5 | 146.6 | 8.06 | | | |
| 2006 | 23.64 | 1.3 | 177.7 | 9.77 | | | |
| 2007 | 25.45 | 1.4 | 193.1 | 10.62 | | | |
| 2008 | 38.18 | 2.1 | 209.9 | 11.54 | | | |
| 2009 | 262.40 | 14.4 | 262.4 | 14.43 | | | |

8. HCFC consumption in Mali is expected to grow on a yearly basis by 8 per cent using an unconstrained growth scenario from 2011 to 2020. Table 2 presents the forecast on HCFC consumption from 2009 to 2020.

Table 2: Forecast consumption of HCFC

| YEAR | | 2009* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| With | MT | 262.4 | 282.1 | 282.1 | 282.1 | 272.2 | 272.2 | 245 | 245 | 245 | 245 | 245 | 177.0 |
| constraint (MP) | ODP | 14.4 | 15.5 | 15.5 | 15.5 | 15.0 | 15.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 9.7 |
| Without | MT | 262.4 | 282.1 | 304.6 | 329.0 | 355.3 | 383.8 | 414.5 | 447.6 | 483.4 | 522.1 | 563.9 | 609.0 |
| constraint | ODP | 14.4 | 15.5 | 16.8 | 18.1 | 19.5 | 21.1 | 22.8 | 24.6 | 26.6 | 28.7 | 31.0 | 33.5 |

^{*}Article 7 data

Sectoral distribution of HCFCs

9. HCFCs in Mali are used for servicing domestic air-conditioning, central air-conditioning, commercial and industrial refrigeration air conditioning equipment. Table 3 below presents the consumption of refrigerants in the country by refrigeration and air-conditioning servicing 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 | |
| Domestic Air-Conditioning | 383,124 | 582.9 | 32.06 | 246.5 | 13.56 | |
| Industrial Refrigeration | 300 | 4.7 | 0.26 | 1.4 | 0.08 | |
| Commercial Refrigeration | 33,243 | 47 | 2.59 | 14.1 | 0.78 | |
| Central Air-Conditioning | 37 | 1 | 0.06 | 0.4 | 0.02 | |
| Total | 416,704 | 635.6 | 34.97 | 262.4 | 14.44 | |

- 10. The HPMP estimated the servicing need for the equipment using leakage rates ranging from 30 to 50 per cent for domestic air-conditioning, 40 per cent for central air-conditioning, 30 per cent for commercial refrigeration, and 30 per cent for industrial refrigeration equipment.
- 11. With regard to HCFC-22 prices, the survey results showed that they are relatively low as compared to those of alternative refrigerants such as R-134a, R-404A, R-407C and R-410A.

Calculation of consumption baseline

12. The estimated HCFC baseline for compliance is calculated by the country as the average of the 2009 actual consumption reported under Article 7 of 262.4 mt (14.43 ODP tonnes) and 2010 estimated consumption of 282.1 mt (15.52 ODP tonnes), which results in an estimated baseline of 272.2 mt (15 ODP tonnes).

HCFC phase-out strategy

- 13. The Government of Mali has adopted a two-step strategy to implement its HPMP. It plans to freeze HCFC consumption at the estimated baseline level of 272.2 mt (14.97 ODP tonnes) in 2013, and to gradually reduce its HCFCs consumption by 10 and 35 per cent by 2015 and 2020 respectively.
- 14. Mali 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 150 customs and enforcement officers on ODS regulations and techniques for identifying ODS and non-ODS alternative fluids; and the training of 15 trainers in retrofit techniques and 200 refrigeration technicians in good practices in refrigeration and air-conditioning servicing. The investment component includes technical assistance; the provision of equipment for the retrofit centres and stock of alternative refrigerants with high energy efficiency and low global warming potential (GWP) as drop-in replacement and for retrofitting equipment; and the introduction of incentives for the conversion of refrigeration and air-conditioning equipment.

Cost of the HPMP

15. The total cost of stage I of the HPMP is estimated at US \$560,000 plus agencies' support costs that amount to US \$57,400 to phase out 95.27 mt (5.24 ODP tonnes) till 2020. Table 4 presents the budget breakdown for stage I of the HPMP.

Table 4: Proposed activities and estimated budget

| Description | Agency | 2011 | 2013 | 2016 | 2018 | 2020 | TOTAL |
|---|--------|---------|--------|---------|--------|--------|---------|
| Strengthening national capacities (Customs, Environment Inspectors, Department of Commerce) for monitoring and controlling the import and distribution of HCFCs | UNEP | 20,000 | 15,000 | 30,000 | 10,000 | 10,000 | 85,000 |
| Strengthening technical capacity of refrigeration expert in good practices in refrigeration | UNEP | 25,000 | 20,000 | 30,000 | 30,000 | 10,000 | 115,000 |
| Strengthening of Centres of Excellence and major refrigeration workshops, and incentives for conversion of refrigeration equipment | UNDP | 160,000 | 0 | 120,000 | 0 | 0 | 280,000 |
| Monitoring and evaluation of the implementation of HPMP | UNEP | 20,000 | 20,000 | 20,000 | 15,000 | 5,000 | 80,000 |
| TOTAL | | 225,000 | 55,000 | 200,000 | 55,000 | 25,000 | 560,000 |

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

16. The Secretariat reviewed the HPMP for Mali in the context of the guidelines for the preparation of HPMPs (decision 54/39), the criteria for funding HCFC phase-out in the consumption sector agreed at the 60th Meeting (decision 60/44), subsequent decisions on HPMPs made at the 62nd Meeting and the 2011-2014 business plan of the Multilateral Fund.

HCFC consumption

- 17. The Secretariat considered the HCFC survey results and noted that these were inconsistent with data reported under Article 7 for the years up to 2008. Furthermore, the review of Article 7 data shows an increase in HCFC consumption of 587 per cent in 2009. The Secretariat drew UNEP's attention on the discrepancies between data reported under Article 7 and the HCFC survey results. UNEP advised that these discrepancies are due to the fact that Article 7 data were reported based on rough estimates while figures in the HPMP are based on the most accurate data drawn from the HCFC survey results.
- 18. In assessing the methodology used for the HCFC survey the Secretariat noted that the evaluation team could not obtain from the customs department the number of refrigeration units imported as they were not recorded by unit but rather by weight. Moreover, the amount of HCFC imported by each registered importer in 2009 and 2010 was not available. UNEP advised that there are no specific registered importers for refrigerants in Mali and most importers who sought import permits were for refrigeration equipment. UNEP also explained that the refrigerant and refrigeration equipment was imported from neighbouring countries (Côte d'Ivoire, Guinea, Senegal, Togo via Burkina Faso) that have signed a free trade agreement making the import monitoring more difficult. In this context, the survey team had to rely on the declarations of uses provided by the technicians.
- 19. The Secretariat also noted from the HCFC survey results that the consumption increased by 25 per cent in 2009 and 7.5 per cent in 2010. The Secretariat was informed that this situation results from the development of infrastructure including the housing sector.

Starting point for aggregate reduction in HCFC consumption

20. The Government of Mali agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the average level of actual reported consumption in 2009 and estimated consumption in 2010 of 15 ODP tonnes. The business plan indicated a baseline of 15 ODP tonnes.

Technical and cost issues

21. The Secretariat raised the issue related to the long-term sustainability of the activities implemented under the terminal phase-out management plan (TPMP) and enquired about the extent to which the equipment provided under the TPMP could be used during the HPMP implementation. UNEP advised that the Government of Mali has strengthened the Malian association of refrigeration technicians, which will coordinate the refrigeration technicians' activities across the country through its regional branches. With regard to the equipment provided under the TPMP, UNEP indicated that it was already being used, in some cases, for HCFC-based equipment and will continue to be used under the HPMP. However, it has proved to be insufficient and in some cases obsolete. In the framework of the TPMP 358 refrigeration technicians and 125 customs officers have been trained; 5 hydrocarbon charging stations and 40 maintenance tools kits purchased; 4 centres for recovery/recycling and retrofit established; and one service centre was established at the training institute of Bamako.

- 22. The Secretariat noted in the HPMP that the leakage rate is ranging from 30 per cent to 50 per cent depending on the type of equipment. In this regard, the Secretariat requested UNEP to provide justification on the leakage rates assigned to refrigeration equipment and how they were calculated. UNEP explained that the leakage rate for refrigeration equipment was calculated based on the amount of equipment available in the country, the total amount of HCFCs used by sub-sector and known average content per equipment unit in each sub-sector. The refrigeration technicians' declarations were also taken into account. UNEP also advised that the equipment is serviced at least once a year.
- 23. The Secretariat assessed the training programme and noted that UNEP is planning 2 training sessions each year till 2019. The Secretariat considered the possibility of organizing training sessions earlier and grouping them for cost-effectiveness. Consequently, customs officers, environment inspectors and the Department of Commerce 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 need to keep the technicians and the officers up to date with the latest technologies.
- 24. In line with decision 60/44, the funding for the implementation of Mali's HPMP has been agreed at US \$560,000 (excluding agencies' support costs) and covers activities for stage I of the HPMP which requires a 35 per cent reduction until 2020. These resources will allow the country to phase out 95.27 mt (5.24 ODP tonnes) by 2020. The total support cost is US \$57,400 and includes US \$36,400 for UNEP and US \$21,000 for UNDP, as cooperating agency.

Impact on the climate

25. The proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices and enforcement of HCFC import controls, will reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.8 CO₂-equivalent tonnes saved. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Mali, in particular its strong reliance on the use of hydrocarbons in the service sector indicate that it is likely that the country will achieve a reduction of 17,279.10 CO₂-equivalent tonnes in emissions into the atmosphere as estimated in the 2011-2014 business plan. However, at this time, the Secretariat is not in a position to quantitatively estimate the impact on the climate. The impact might be established through an assessment of implementation reports by, inter alia, comparing the levels of refrigerants used annually from the commencement of the implementation of the HPMP, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22 based equipment being retrofitted.

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, the Government has pledged US \$240,000 towards the implementation of the activities in the HPMP. Other sources of funding within the Government will be explored.

2011-2014 business plan of the Multilateral Fund

27. UNEP and UNDP are requesting US \$560,000 plus support costs for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$339,000 including support costs is within the total amount in the business plan. Based on the estimated HCFC baseline consumption in the servicing sector of 272.2 mt, Mali's allocation up to the 2020 phase-out should be US \$560,000 in line with decision 60/44.

Draft agreement

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

RECOMMENDATION

- 29. The Executive Committee may wish to consider:
 - (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Mali for the period 2011 to 2020, at the amount of US \$617,400, comprising of US \$280,000 and agency support costs of US \$36,400 for UNEP, and US \$280,000 and agency support costs of US \$21,000 for UNDP;
 - (b) Noting that the Government of Mali had agreed at the 63rd Meeting to establish as its starting point for sustained aggregate reduction in HCFC consumption the estimated baseline of 15 ODP tonnes, calculated using actual consumption for 2009 and estimated consumption for 2010;
 - (c) Approving the draft Agreement between the Government of Mali 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 Mali, and the corresponding implementation plan, at the amount of US \$245,450, comprising of US \$65,000 and agency support costs of US \$8,450 for UNEP, and US \$160,000 and agency support costs of US \$12,000 for UNDP.

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Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF MALI 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 Mali (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 9.8 ODP tonnes prior to 1 January 2020 in compliance with Montreal Protocol schedules with the understanding that this figure is to be revised one single time in 2011, when the baseline consumption for compliance would be 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"; the Target) 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 ("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. The Country will accept independent verification, to be commissioned by the relevant bilateral or implementing agency, of 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 as described in subparagraph 5(b) of this Agreement.
- 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 tranche implementation reports in the form of Appendix 4-A ("Format of Tranche 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; and
- (d) That the Country has submitted and received approval from the Executive Committee for a tranche implementation plan in the form of Appendix 4-A ("Format of Tranche 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.
- 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 tranche implementation plan 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 sub-paragraph 5(b).
- 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 phase-down and phase-out of the Substances specified in Appendix 1-A. Reallocations categorized as major changes must be documented in advance in a Tranche Implementation Plan and approved by the Executive Committee as described in sub-paragraph 5(d). Major changes would relate to reallocations affecting in total 30 per cent or more of the funding of the last approved tranche, issues potentially concerning the rules and policies of the Multilateral Fund, or changes which would modify any clause of this Agreement. Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the Tranche Implementation Report. 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 UNDP has agreed to be 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 plan as detailed in the first submission of the HPMP with the changes approved as part of the subsequent tranche 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

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activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have entered into a formal agreement regarding 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 amounts set out in Appendix 7-A in respect of each ODP tonne 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.
- 12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.
- 13. The Country will comply with any reasonable request of the Executive Committee, and the Lead IA 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 Appendix 4-A (a), (b), (d) and (e) continue until the time of the completion if not specified by the Executive Committee otherwise.
- 15. All of the agreements 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 | 15 |

APPENDIX 2-A: THE TARGETS, AND FUNDING

| | | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|-------|--|---------|------|--------|------|------|---------|------|--------|------|--------|---------|
| 1.1 | Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes) | n/a | n/a | 15 | 15 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 9.8 | n/a |
| 1.2 | Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes) | n/a | n/a | 15 | 15 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 9.8 | n/a |
| 2.1 | Lead IA (UNEP) agreed funding (US \$) | 65,000 | | 55,000 | | | 80,000 | | 52,000 | | 28,000 | 280,000 |
| 2.2 | Support costs for Lead IA (US \$) | 8,450 | | 7,150 | | | 10,400 | | 6,760 | | 3,640 | 36,400 |
| 2.3 | Cooperating IA (UNDP) agreed funding (US \$) | 160,000 | | | | | 92,000 | | | | 28,000 | 280,000 |
| 2.4 | Support costs for Cooperating IA (US \$) | 12,000 | | | | | 6,900 | | | | 2,100 | 21,000 |
| 3.1 | Total agreed funding (US \$) | 225,000 | | 55,000 | | | 172,000 | | 52,000 | | 56,000 | 560,000 |
| 3.2 | Total support costs (US \$) | 20,450 | | 7,150 | | | 17,300 | | 6,760 | | 5,740 | 57,400 |
| 3.3 | Total agreed costs (US \$) | 245,450 | | 62,150 | | | 189,300 | | 58,760 | | 61,740 | 617,400 |
| 4.1.1 | .1.1 Total phase-out of HCFC-22 under this agreement (ODP tonnes) | | | | | | | | | 5.2 | | |
| 4.1.2 | 4.1.2 Phase-out of HCFC-22 in previously approved projects (ODP tonnes) | | | | | | | | | | 0 | |
| 4.1.3 | 4.1.3 Remaining eligible consumption for HCFC-22 | | | | | | | | | 9.8 | | |

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 TRANCHE IMPLEMENTATION REPORTS AND PLANS

- 1. The submission of the Tranche Implementation Report and Plan will consist of five parts:
 - (a) A narrative report regarding the progress in 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

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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 in the next tranche, 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 NOU will submit annual progress reports of status of implementation of the HPMP to UNEP.
- 2. Monitoring of development of HPMP and verification of the achievement of the performance targets, specified in the Plan, will be assigned to independent local company or to independent local consultants by UNEP.

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 phase-out plan;

- (b) Assisting the Country in preparation of the Tranche 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 Tranche 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 Tranche Implementation Plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
- (e) Fulfilling the reporting requirements for the tranches and the overall Plan as specified in Appendix 4-A as well as project completion reports 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 Tranche 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 IAs, the allocation of the reductions to the different budget items and to the funding of each implementing or bilateral agency involved;
- (k) Ensuring that disbursements made to the Country are based on the use of the indicators; and
- (1) Providing assistance with policy, management and technical support when required.
- 2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent 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 COOPERATING IMPLEMENTING AGENCY

- 1. The Cooperating IA will be responsible for a range of activities. These activities can be specified in the respective project document 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

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(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.
