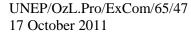
UNITED NATIONS **EP** 



# United Nations Environment Programme

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

#### PROJECT PROPOSAL: SENEGAL

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)

UNIDO and UNEP

# PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS Senegal

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

| (II) LATEST ARTICLE 7 DATA | Year: 2010 | 37.54 (ODP tonnes) |
|----------------------------|------------|--------------------|
|----------------------------|------------|--------------------|

| (III) LATES | T COUNT | Year: 2010 |                  |           |  |  |       |  |                          |
|-------------|---------|------------|------------------|-----------|--|--|-------|--|--------------------------|
| Chemical    | Aerosol | Foam       | Fire<br>fighting | 8         |  |  |       |  | Total sector consumption |
|             |         |            | Manufacturing    | Servicing |  |  |       |  |                          |
| HCFC-22     |         |            | 37.54            |           |  |  | 37.54 |  |                          |

| (IV) CONSUMPTION DATA  | ODP tonnes)                                   |            |       |  |  |  |  |  |  |
|--|---|------------|-------|--|--|--|--|--|--|
| 2009 - 2010 baseline: 36.15 Starting point for sustained aggregate reductions: |   |            |       |  |  |  |  |  |  |
|  | CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes) |            |       |  |  |  |  |  |  |
| Already approved:  | 0.0   | Remaining: | 23.50 |  |  |  |  |  |  |

| (V) BUSINESS PLAN |                            | 2011   | 2012 | 2013   | 2014   | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total   |
|-------------------|----------------------------|--------|------|--------|--------|------|------|------|------|------|------|---------|
| UNEP              | ODS phase-out (ODP tonnes) | 0.9    |      | 0.9    |        |      |      |      |      |      |      | 1.8     |
|                   | Funding (US \$)            | 91,853 | 0    | 91,853 | 0      | 0    | 0    | 0    | 0    | 0    | 0    | 183,705 |
| UNIDO             | ODS phase-out (ODP tonnes) | 0.9    |      |        | 0.9    |      |      |      |      |      |      | 1.8     |
|                   | Funding (US \$)            | 18,594 | 0    | 0      | 20,024 | 0    | 0    | 0    | 0    | 0    | 0    | 38,617  |

| (VI) PROJECT                                       | DATA         |               | 2011    | 2012 | 2013   | 2014    | 2015  | 2016   | 2017    | 2018  | 2019   | 2020    | Total     |
|--|--------------|---------------|---------|------|--------|---------|-------|--------|---------|-------|--------|---------|-----------|
| Montreal Protocol consumption limits (estimate)    |              |               | n/a     | n/a  | 36.15  | 36.15   | 32.54 | 32.54  | 32.54   | 32.54 | 32.54  | 23.50   |           |
| Maximum allowa<br>(ODP tonnes)                     | able consur  | nption        | n/a     | n/a  | 36.15  | 36.15   | 32.54 | 32.54  | 32.54   | 32.54 | 32.54  | 23.50   |           |
| Project Costs<br>requested in                      | UNEP         | Project costs | 100,000 |      |        | 150,000 |       |        | 180,000 |       |        | 100,000 | 530,000   |
| principle(US \$)                                   | 5 \$)        | Support costs | 12,887  |      |        | 19,330  |       |        | 23,196  |       |        | 12,887  | 68,300    |
|  | UNIDO        | Project costs | 200,000 |      |        | 75,000  |       |        | 160,000 |       |        | 70,216  | 505,216   |
|  |              | Support costs | 15,000  |      |        | 5,625   |       |        | 12,000  |       |        | 5,266   | 37,891    |
| Total project cosprinciple (US \$)                 | _            | l in          | 300,000 | 0    | 0      | 225,000 | 0     | 0      | 340,000 | 0     | 0      | 170,216 | 1,035,216 |
| Total support costs requested in principle (US \$) |              | 27,887        | 0       | 0    | 24,955 | 0       | 0     | 35,196 | 0       | 0     | 18,153 | 106,191 |           |
| Total funds reque<br>(US \$)                       | ested in pri | nciple        | 327,887 | 0    | 0      | 249,955 | 0     | 0      | 375,196 | 0     | 0      | 188,369 | 1,141,407 |

# CONTINUATION OF PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS Senegal

| (VII) Request for funding for the first tranche (2011) |                         |                       |  |  |  |  |  |  |  |
|--|-------------------------|-----------------------|--|--|--|--|--|--|--|
| Agency   | Funds requested (US \$) | Support costs (US \$) |  |  |  |  |  |  |  |
| UNEP   | 100,000                 | 12,887                |  |  |  |  |  |  |  |
| UNIDO  | 200,000                 | 15,000                |  |  |  |  |  |  |  |

| 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 Senegal UNIDO, as the lead implementing agency, has submitted to the 65<sup>th</sup> meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP) at a total cost of US \$1,035,216 plus support costs of US \$37,891 for UNIDO and US \$68,300 for UNEP. The HPMP covers strategies and activities to meet a 35 per cent reduction in HCFC consumption by 2020.
- 2. The first tranche for stage I being requested at this meeting amounts to US \$200,000 plus agency support costs of US \$15,000 for UNIDO and US \$100,000 plus agency support costs of US \$12,887 for UNEP, as originally submitted.

## Background

3. Senegal is a western African country bounded by the Atlantic Ocean to the west, Mauritania to the north, Mali to the east, and Guinea and Guinea-Bissau to the south. The country covers a land area of almost 196,700 square kilometres (76,000 sq mi). The climate is tropical with a dry and a rainy season. The population is estimated at 14.086 million inhabitants. Fishing, tourism and agriculture are the main economic activities. The Government of Senegal has ratified all the amendments of the Montreal Protocol.

#### ODS policy and regulatory framework

- 4. Senegal has regulations and licensing and quota systems to monitor the import and distribution of ODS and ODS based-equipment including HCFCs. The sub-regional regulation for the "Union Economique et Monétaire de l'Ouest Africain" (UEMOA) 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 movement among these countries. These sub-regional regulations have been harmonized with national regulations to include the accelerated HCFC phase-out control measures agreed in 2007. Under the HPMP, the Government of Senegal will upgrade its legislation, which will include the ban on specific HCFC-based equipment.
- 5. The National Ozone Unit (NOU) under the authority of the Ministry of Environment is responsible for implementing, monitoring and evaluating the activities under the Montreal Protocol including the HPMP. It also has the responsibility of controlling the HCFC phase-out under the supervision of the National Ozone Committee (NOC) which consists of the representatives of the Customs Office, Trade Office, Environment Office and NOU.

#### HCFC consumption

6. The review of the HCFC consumption data showed that Senegal reported only HCFC-22 since the year 2000. The survey confirmed that Senegal uses mainly HCFC-22, representing about 99 per cent of HCFCs imported, in servicing refrigeration and air-conditioning units. It also revealed that HCFC consumption increased from 502 mt (27.61 ODP tonnes) in 2005 to 682.56 mt (37.54 ODP tonnes) in 2010. Since 2005, the yearly HCFC-22 consumption increase ranged from 4 per cent to 8 per cent. Table 1 presents data on HCFC-22 consumption reported under Article 7 which was verified through the HCFC survey from 2005 to 2010.

Table 1: HCFC consumption from 2005 to 2010

|      | Article 7 and survey results |                    |  |  |  |  |  |
|------|------------------------------|--------------------|--|--|--|--|--|
| Year | HCFC-22                      | HCFC-22            |  |  |  |  |  |
|      | (in ODP tonnes)              | (in metric tonnes) |  |  |  |  |  |
| 2005 | 27.61                        | 502.00             |  |  |  |  |  |
| 2006 | 29.70                        | 540.00             |  |  |  |  |  |
| 2007 | 31.63                        | 575.00             |  |  |  |  |  |
| 2008 | 32.89                        | 598.00             |  |  |  |  |  |
| 2009 | 34.76                        | 632.00             |  |  |  |  |  |
| 2010 | 37.54                        | 682.56             |  |  |  |  |  |

7. On the basis of the high need for HCFCs on the domestic market and the strategy of the Government on the development of the energy supply grid, HCFC consumption 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 up to 2020.

Table 2: Forecast consumption of HCFC

| Year       |     | 2009* | 2010*  | 2011   | 2012   | 2013   | 2014   | 2015     | 2016     | 2017     | 2018     | 2019     | 2020    |
|------------|-----|-------|--------|--------|--------|--------|--------|----------|----------|----------|----------|----------|---------|
| With       | MT  | 632   | 682.56 | 657.68 | 657.68 | 657.28 | 657.28 | 591.55   | 591.55   | 591.55   | 591.55   | 591.55   | 427.23  |
| constraint | ODP | 34.76 | 37.54  | 36.17  | 36.17  | 36.15  | 36.15  | 32.54    | 32.54    | 32.54    | 32.54    | 32.54    | 23.50   |
| Without    | MT  | 632   | 682.56 | 738.02 | 797.06 | 860.82 | 929.69 | 1,004.07 | 1,084.39 | 1,171.14 | 1,264.83 | 1,366.02 | 1,475.3 |
| constraint | ODP | 34.76 | 37.54  | 40.59  | 43.84  | 47.35  | 51.13  | 55.22    | 59.64    | 64.41    | 69.57    | 75.13    | 81.14   |

\*Article 7 data

#### Sectoral distribution of HCFCs

8. HCFCs in Senegal are used predominantly for servicing in the domestic, air-conditioning and commercial/industrial refrigeration sectors. Table 3 below presents the consumption of HCFCs in the country by refrigeration servicing sector for 2009, the latest year for which such data was available in the submission.

Table 3: Distribution of HCFC-22 in refrigeration systems in 2009

| Equipment type                    | Total units (estimated) | Charge (<br>(estima |        | Resulting of service consumpting (ton) | cing<br>ion/year) |
|-----------------------------------|-------------------------|---------------------|--------|--|-------------------|
|                                   |                         | Metric              | ODP    | Metric                                 | ODP               |
| Domestic air-conditioning systems | 1,828,517               | 2,646.50            | 145.56 | 529.30                                 | 29.11             |
| Commercial refrigeration systems  | 380,521                 | 546.00              | 30.03  | 87.40                                  | 4.81              |
| Industrial refrigeration systems  | 6,349                   | 61.35               | 3.37   | 15.34                                  | 0.84              |
| Total                             | 2,215,387               | 3,254.10            | 178.96 | 632.00                                 | 34.76             |

9. Table 3 shows that 83.62 per cent of the total consumption is used for servicing domestic air-conditioning systems, and 13.79 per cent for servicing commercial refrigeration equipment. The remaining 2.59 per cent is used for servicing industrial refrigeration systems. The refrigerant leakage rates in Senegal depend on the standard of installation and the quality and regularity of servicing. It is quite common for poorly maintained systems to consume significantly higher volumes of refrigerants than refrigeration systems maintained based on the manufacturer's requirements. The leakage rate is estimated at 20 per cent for the domestic air-conditioning systems, 16 per cent for commercial refrigeration systems and 25 per cent for industrial refrigeration systems.

10. The current prices of HCFCs and alternative refrigerants per kilogramme in the country are: US \$16 for HCFC-22, US \$16 for HFC-134a, US \$16 for HFC-404A, US \$22 for HFC-407C and US \$24 for HFC-410A. Due to the fact that HCFC-22 price is low and already used in installed systems, it is used for almost all servicing requirements. Hydrocarbons are expected to be available in quantity once HC-based equipment is imported and installed. Consequently, the price of HC is not currently available.

#### Calculation of consumption baseline

11. The HCFC baseline for compliance was calculated as the average of the 2009 consumption of 632 mt (34.76 ODP tonnes) and 2010 consumption of 682.56 mt (37.54 ODP tonnes) reported under Article 7, which results in a baseline of 657.28 mt (36.15 ODP tonnes).

#### HCFC phase-out strategy

- 12. The Government of Senegal plans to freeze the consumption of HCFCs by 1 January 2013 at the level of 657.28 mt (36.15 ODP tonnes) and gradually reduce it from the baseline following the Montreal Protocol control measures to meet the 35 per cent reduction in 2020. 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 until 2040.
- 13. The total cost for the implementation of stage I of the HPMP as submitted is US \$1,035,216 plus agency support costs of US \$106,191 including US \$37,891 for UNIDO and US \$68,300 for UNEP. These resources will allow the country to implement activities to phase out 230.05 mt (12.65 ODP tonnes) of HCFCs by the end of 2020. The Government of Senegal is proposing to meet its compliance targets by implementing both investment and non-investment activities from 2011 to 2020. Table 4 presents activities to be implemented and related costs.

Table 4: Total cost of stage I of the HPMP

| Project component/activities  | Agency | 2011    | 2014    | 2017    | 2020    | Total<br>(US \$) |
|---|--------|---------|---------|---------|---------|------------------|
| Policy instrument: Support background for co-relation of ODS legislation with the safety standards, fire protection systems, storage requirements for vessels under pressure and emissions reduction measures / Communication and relevant information distribution to interested stakeholders / Improvement of the reporting system for end-users and creation of an electronic database on HCFCs. | UNIDO  | 20,000  | 10,000  | 20,000  | 15,000  | 65,000           |
| Upgrade of 10 vocational schools curricula and performance for the training of approximately 2,100 technicians: training of 200 trainers / Training equipment including refrigerant identifiers, training guides and consumables / Public awareness activities.   | UNEP   | 50,000  | 80,000  | 100,000 | 60,000  | 290,000          |
| Strengthening the capabilities and capacity of the existing recovery and recycling network: establishment of a national refrigerant reclaim facility including one reclaim machine and analysis equipment / Development of codes of practices, training of trainers, 60 portable recovery machines and 60 electronic leak detectors.  | UNIDO  | 150,000 | 50,000  | 90,000  | 16,800  | 306,800          |
| Customs training and public awareness: training of 20 trainers, 150 customs officers and other law enforcement officers and key stakeholders / Development and production of materials and guides / Training equipment (identifiers and consumables) / Public awareness activities.   | UNEP   | 50,000  | 70,000  | 80,000  | 40,000  | 240,000          |
| Coordination and management   | UNIDO  | 30,000  | 15,000  | 50,000  | 38,416  | 133,416          |
| Total   |        | 300,000 | 225,000 | 340,000 | 170,216 | 1,035,216        |

#### SECRETARIAT'S COMMENTS AND RECOMMENDATION

#### **COMMENTS**

14. The Secretariat reviewed the HPMP for Senegal 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.

#### Issues related to HCFC consumption

15. The Secretariat reviewed HCFC survey results and noted that they were consistent with data reported under Article 7. The annual rate of increase in HCFC consumption ranged from 4 to 8.1 per cent from 2005 to 2010 (see Table 1).

### Starting point for aggregate reduction in HCFC consumption

16. The Government of Senegal agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the average level of actual reported consumption of 632 mt (34.76 ODP tonnes) and 682.56 mt (37.54 ODP tonnes) in 2009 and 2010, respectively, resulting in 36.15 ODP tonnes. The business plan indicated a baseline of 36.2 ODP tonnes.

#### Technical and cost issues

- 17. The HPMP for Senegal HPMP was originally submitted to the 64<sup>th</sup> meeting. However, the HPMP was withdrawn and resubmitted to the 65<sup>th</sup> meeting to allow the country to address data inconsistencies. The Secretariat noted that the revised HPMP took into account its comments provided on the earlier submission for the 64<sup>th</sup> meeting.
- 18. The Secretariat sought clarification on the activities related to the establishment of the electronic database on HCFCs and requested UNIDO to provide information on how the CFC data was managed. UNIDO advised that the NOU has an electronic database but interested stakeholders do not have access to it. In addition, the structure of this database is not appropriate in the context of the HCFC phase-out activities. Thus, there will be a need to create an electronic HCFC database and train end-users on the new software.
- 19. The Secretariat reviewed the equipment inventory and the leakage rates assigned to the equipment available in Senegal. It appears that the leakage rate of 20 per cent for the domestic air conditioning systems, 16 per cent for the commercial refrigeration systems and 25 per cent for the industrial refrigeration systems are reasonable given the climate conditions in the country and the apparent typical status of the refrigeration equipment. The annual need for servicing of 632 mt (34.76 ODP tonnes) is justified by the number of equipment in operation in the country.
- 20. The Secretariat sought information on the status of the terminal phase-out management plan (TPMP) and the extent to which the equipment provided under the TPMP could be used during the HPMP implementation. UNIDO indicated that the TPMP was expected to be completed in 2010 but the activities are still on-going. However, the remaining funds have been almost fully committed. Under the TPMP, 15 recovery machines were distributed to 15 centres. The equipment that was delivered in 2010 is still in good condition and can be used with HCFCs. The first report on annual recycled quantities will be available in the year 2012.

- 21. The Secretariat drew UNIDO's attention to the fact that the baseline of 657.28 mt (36.15 ODP tonnes) being higher than 360 mt, low-volume-consuming (LVC) limit set in decision 60/44, moves Senegal in the category of non-low-volume-consuming (non-LVC) countries, where eligible funding under that decision is available only to meet the 2015 phase-out targets and is calculated based on US \$4.5/kg of the consumption identified in the servicing sector. However, decision 62/11 also allows former LVC countries with HCFC consumption above 360 mt in the refrigeration servicing sector only to submit an HPMP to meet control measures up to 2020 on the understanding that the level of funding provided would be considered on a case-by-case basis.
- 22. The funding for the implementation of Senegal's HPMP has been agreed at US \$1,035,216 (excluding agency support costs) to meet the 2020 phase-out targets of the HPMP, which requires a 35 per cent reduction until 2020. These resources will allow the country to phase out 230.05 mt (12.65 ODP tonnes) by 2020.

#### Impact on the climate

23. 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. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Senegal, in particular its above-average efforts to improve servicing practices and reduce associated refrigerant emissions indicate that it is likely that the country will surpass the 11,844 CO<sub>2</sub>-equivalent tonnes that would not be emitted 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

24. In response to decision 54/39(h) on potential financial incentives and opportunities for additional resources to maximize the environmental benefits from HPMPs pursuant to paragraph 11(b) of decision XIX/6 of the Nineteenth Meeting of the Parties, UNIDO explained that the Government shows a strong commitment to mobilize additional resources for the HPMP implementation. In this regard, the Global Environment Facility was contacted by the Government as potential co-financing institution. However, Senegal already achieved the maximum funding eligibility for GEF at the current stage ending in 2014 but will look for additional funds in the frame of the second stage of the HPMP. Moreover, the refrigeration associations and the recovery centres are ready for in-kind contribution such as providing advice on technical issues in achieving the HPMP targets.

#### 2011-2014 business plan of the Multilateral Fund

- 25. UNIDO and UNEP are requesting US \$1,035,216 plus support costs for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$577,842 including support cost is above the total amount in the business plan. The difference in the figures is because Senegal was an LVC country and reclassified as a non-LVC country due to the level of the HCFC baseline consumption.
- 26. Based on the HCFC baseline consumption in the servicing sector of 657.28 mt (36.15 ODP tonnes) and the desired phase-out of exactly 35 per cent in line with the country's compliance requirements under the Montreal Protocol, Senegal's allocation up to the 2020 phase-out should be US \$1,035,216 in line with decision 60/44.

#### **Draft Agreement**

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

#### RECOMMENDATION

- 28. The Executive Committee may wish to consider:
  - (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Senegal for the period 2011 to 2020 to meet the 35 per cent reduction in HCFC consumption, at the amount of US \$1,035,216, consisting of US \$505,216 plus agency support costs of US \$37,891 for UNIDO, and US \$530,000 plus agency support costs of US \$68,300 for UNEP;
  - (b) Noting that the Government of Senegal had agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the baseline of 36.15 ODP tonnes, calculated using actual consumption of 34.76 ODP tonnes and 37.54 ODP tonnes reported for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol;
  - (c) Deducting 12.65 ODP tonnes of HCFCs from the starting point for sustained aggregate reduction in HCFC consumption;
  - (d) Approving the draft Agreement between the Government of Senegal and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;
  - (e) Approving the first tranche of stage I of the HPMP for Senegal, and the corresponding implementation plan, at the amount of US \$327,887, consisting of US \$200,000 plus agency support costs of US \$15,000 for UNIDO, and US \$100,000 plus agency support costs of US \$12,887 for UNEP.

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#### Annex I

# DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF SENEGAL AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROFLUOROCARBONS

- 1. This Agreement represents the understanding of the Government of the Republic of Senegal (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 23.5 ODP tonnes by 1 January 2020 in compliance with Montreal Protocol schedules.
- 2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A ("The Targets and Funding") in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in row 4.1.3 (remaining eligible consumption).
- 3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees in principle to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A ("Funding Approval Schedule").
- 4. The Country agrees to implement this Agreement in accordance with the HCFC phase-out sector plans submitted. In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.
- 5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:
  - (a) That the Country had met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which no obligation for reporting of country programme data exists at the date of the Executive Committee meeting at which the funding request is being presented are exempted;
  - (b) That the meeting of these Targets has been independently verified, unless the Executive Committee decided that such verification would not be required;
  - (c) That the Country had submitted annual implementation reports in the form of Appendix 4-A ("Format of Implementation Reports and Plans") covering each previous calendar year; that it had achieved a significant level of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent;

- (d) That the Country has submitted an annual implementation plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen; and
- (e) That, for all submissions from the 68<sup>th</sup> meeting onwards, confirmation has been received from the Government that an enforceable national system of licensing and quotas for HCFC imports and, where applicable, production and exports is in place and that the system is capable of ensuring the Country's compliance with the Montreal Protocol HCFC phase-out schedule for the duration of this Agreement.
- 6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A ("Monitoring Institutions and Roles") will monitor and report on implementation of the activities in the previous annual implementation plans in accordance with their roles and responsibilities set out in Appendix 5-A. This monitoring will also be subject to independent verification as described in paragraph 4 above.
- 7. The Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:
  - (a) Reallocations categorized as major changes must be documented in advance either in an annual implementation plan submitted as foreseen in sub-paragraph 5(d) above, or as a revision to an existing annual implementation plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
    - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
    - (ii) Changes which would modify any clause of this Agreement;
    - (iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches; and
    - (iv) Provision of funding for programmes or activities not included in the current endorsed annual implementation plan, or removal of an activity in the annual implementation plan, with a cost greater than 30 per cent of the total cost of the last approved tranche;
  - (b) Reallocations not categorized as major changes may be incorporated in the approved annual implementation plan, under implementation at the time, and reported to the Executive Committee in the subsequent annual implementation report; and
  - (c) Any remaining funds will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.
- 8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sub-sector, in particular:
  - (a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
  - (b) The Country and the bilateral and implementing agencies involved will take full account of the requirements of decisions 41/100 and 49/6 during the implementation of the plan.

- 9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNIDO has agreed to be the lead implementing agency (the "Lead IA") and UNEP has agreed to be the cooperating implementing agency (the "Cooperating IA") under the lead of the Lead IA in respect of the Country's activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of any of the agencies taking part in this Agreement.
- 10. The Lead IA will be responsible for ensuring co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). This responsibility includes the necessity to co-ordinate with the Cooperating IA to ensure appropriate timing and sequence of activities in the implementation. The Cooperating IA will support the Lead IA by implementing the activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have reached consensus on the arrangements regarding inter-agency planning, reporting and responsibilities under this Agreement to facilitate a co-ordinated implementation of the Plan, including regular co-ordination meetings. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.
- 11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A ("Reductions in Funding for Failure to Comply") in respect of each ODP kg of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement, and take related decisions. Once these decisions are taken, this specific case will not be an impediment for future tranches as per paragraph 5 above.
- 12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.
- 13. The Country will comply with any reasonable request of the Executive Committee, the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to the information necessary to verify compliance with this Agreement.
- 14. The completion of stage I of the HPMP and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should there at that time still be activities that are outstanding, and which were foreseen in the Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per sub-paragraphs 1(a), 1(b), 1(d), and 1(e) of Appendix 4-A will continue until the time of the completion unless otherwise specified by the Executive Committee.
- 15. All of the conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

### **APPENDICES**

#### **APPENDIX 1-A: THE SUBSTANCES**

| Substance | Annex | Group | Starting point for aggregate reductions in consumption (ODP tonnes) |
|-----------|-------|-------|---|
| HCFC-22   | С     | I     | 36.15   |

# APPENDIX 2-A: THE TARGETS, AND FUNDING

| Row   | Particulars  | 2011        | 2012      | 2013      | 2014          | 2015      | 2016      | 2017    | 2018  | 2019  | 2020    | Total     |
|-------|--|-------------|-----------|-----------|---------------|-----------|-----------|---------|-------|-------|---------|-----------|
| 1.1   | Montreal Protocol<br>reduction schedule of<br>Annex C, Group I<br>substances<br>(ODP tonnes) | n/a         | n/a       | 36.15     | 36.15         | 32.54     | 32.54     | 32.54   | 32.54 | 32.54 | 23.50   | n/a       |
| 1.2   | Maximum allowable<br>total consumption of<br>Annex C, Group I<br>substances<br>(ODP tonnes)  | n/a         | n/a       | 36.15     | 36.15         | 32.54     | 32.54     | 32.54   | 32.54 | 32.54 | 23.50   | n/a       |
| 2.1   | Lead IA (UNIDO)<br>agreed funding (US \$)  | 200,000     | 0         | 0         | 75,000        | 0         | 0         | 160,000 | 0     | 0     | 70,216  | 505,216   |
| 2.2   | Support costs for<br>Lead IA (US \$)   | 15,000      | 0         | 0         | 5,625         | 0         | 0         | 12,000  | 0     | 0     | 5,266   | 37,891    |
| 2.3   | Cooperating IA<br>(UNEP) agreed<br>funding (US \$)   | 100,000     | 0         | 0         | 150,000       | 0         | 0         | 180,000 | 0     | 0     | 100,000 | 530,000   |
| 2.4   | Support costs for<br>Cooperating IA<br>(US \$)   | 12,887      | 0         | 0         | 19,330        | 0         | 0         | 23,196  | 0     | 0     | 12,887  | 68,300    |
| 3.1   | Total agreed funding (US \$)   | 300,000     | 0         | 0         | 225,000       | 0         | 0         | 340,000 | 0     | 0     | 170,216 | 1,035,216 |
| 3.2   | Total support costs (US \$)  | 27,887      | 0         | 0         | 24,955        | 0         | 0         | 35,196  | 0     | 0     | 18,153  | 106,191   |
| 3.3   | Total agreed costs (US \$)   | 327,887     | 0         | 0         | 249,955       | 0         | 0         | 375,196 | 0     | 0     | 188,369 | 1,141,407 |
| 4.1.1 | Total phase-out of HCF   | C-22 agreed | to be ach | ieved und | er this Agree | ement (OI | OP tonnes | )       |       |       |         | 12.65     |
| 4.1.2 |  |             |           |           |               |           |           |         |       |       |         |           |
| 4.1.3 | Remaining eligible consumption for HCFC-22 (ODP tonnes)                                      |             |           |           |               |           |           |         |       |       |         |           |

### APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the last meeting of the year specified in Appendix 2-A.

#### APPENDIX 4-A: FORMAT OF IMPLEMENTATION REPORTS AND PLANS

- 1. The submission of the Implementation Report and Plan for each tranche request will consist of five parts:
  - (a) A narrative report, with data provided by calendar year, regarding the progress since the year prior to the previous report, reflecting the situation of the Country in regard to phase out of the Substances, how the different activities contribute to it, and how they relate to each other. The report should include ODS phase-out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Annual Implementation Plan(s), such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes. The narrative report will cover all relevant years specified in sub-paragraph 5(a) of the Agreement and can in addition also include information on activities in the current year;
  - (b) A verification report of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
  - (c) A written description of the activities to be undertaken until and including the year of the planned submission of the next tranche request, highlighting the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the plan will be provided by calendar year. The description should also include a reference to the overall plan and progress achieved, as well as any possible changes to the overall plan that are foreseen. The description should cover the years specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain in detail such changes to the overall plan. This description of future activities can be submitted as a part of the same document as the narrative report under sub-paragraph (b) above;
  - (d) A set of quantitative information for all annual implementation reports and annual implementation plans, submitted through an online database. This quantitative information, to be submitted by calendar year with each tranche request, will be amending the narratives and description for the report (see sub-paragraph 1(a) above) and the plan (see sub-paragraph 1(c) above), the annual implementation plan and any changes to the overall plan, and will cover the same time periods and activities; and
  - (e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).

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

- 1. The National Ozone Unit (NOU) is the central administrative unit established within the administrative structure of the Ministry of Environment, responsible for the co-ordination of governmental activities with respect to the ozone layer protection and facilitation of ODS phase-out.
- 2. The management of the implementation of the planned project activities will be allocated to the NOU in cooperation with UNIDO as the Lead IA and UNEP as Cooperating IA.

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

- 1. The Lead IA will be responsible for a range of activities, including at least the following:
  - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's HPMP;
  - (b) Assisting the Country in preparation of the Implementation Plans and subsequent reports as per Appendix 4-A;
  - (c) Providing independent verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the Implementation Plan consistent with Appendix 4-A;
  - (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future annual implementation plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
  - (e) Fulfilling the reporting requirements for the annual implementation reports, annual implementation plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee. The reporting requirements include the reporting about activities undertaken by the Cooperating IA;
  - (f) Ensuring that appropriate independent technical experts carry out the technical reviews;
  - (g) Carrying out required supervision missions;
  - (h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Implementation Plan and accurate data reporting;
  - (i) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
  - (j) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the Cooperating IA, the allocation of the reductions to the different budget items and to the funding of each implementing or bilateral agency involved;
  - (k) Ensuring that disbursements made to the Country are based on the use of the indicators; and
  - (l) Providing assistance with policy, management and technical support when required.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity to carry out the verification of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

#### APPENDIX 6-B: ROLE OF THE COOPERATING IMPLEMENTING AGENCY

- 1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the overall plan, including at least the following:
  - (a) Providing assistance for policy development when required;
  - (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a co-ordinated sequence in the activities; and
  - (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A.

#### APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$163 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met.

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