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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Seventy-ninth Meeting  
Bangkok, 3-7 July 2017

**PROJECT PROPOSAL: MEXICO**

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

Foam

- HCFC phase-out in extruded polystyrene (XPS) foam plank applications UNDP

## PROJECT EVALUATION SHEET – NON-MULTI-YEAR PROJECT

## MEXICO

## PROJECT TITLE(S)

## BILATERAL/IMPLEMENTING AGENCY

|  |      |
|--|------|
| (a) HCFC phase-out in extruded polystyrene foam plank applications | UNDP |
|--|------|

## NATIONAL CO-ORDINATING AGENCY

SEMARNAT

## LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

## A: ARTICLE-7 DATA (ODP TONNES, 2016, AS OF MAY 2017)

|       |        |
|-------|--------|
| HCFCs | 519.66 |
|-------|--------|

## B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2016, AS OF APRIL 2017)

|           |        |
|-----------|--------|
| HCFC-22   | 254.96 |
| HCFC-141b | 255.68 |
| HCFC-142b | 8.95   |
| HCFC-123  | 0.24   |
| HCFC-124  | -0.18  |

## HCFC consumption remaining eligible for funding (ODP tonnes)

262.9

CURRENT YEAR BUSINESS PLAN  
ALLOCATIONS

## Funding US \$

## Phase-out ODP tonnes

|     |     |     |
|-----|-----|-----|
| (a) | n/a | n/a |
|-----|-----|-----|

## PROJECT TITLE:

|  |                                  |
|--|----------------------------------|
| ODS use at enterprise (ODP tonnes) (2008):             | 10.91                            |
| ODS to be phased out (ODP tonnes) (average 2014-2016): | 10.08                            |
| ODS to be phased in (ODP tonnes):                      | n/a                              |
| Project duration (months):                             | 24                               |
| Initial amount requested (US \$):                      | 0*                               |
| Final project costs (US \$):                           |                                  |
| Incremental capital cost:                              | 980,000                          |
| Contingency (10 %):                                    | 98,000                           |
| Incremental operating cost:                            | 215,558                          |
| Total project cost:                                    | 1,293,558                        |
| Local ownership (%):                                   | 100%                             |
| Export component (%):                                  | n/a                              |
| Requested grant (US \$):                               | 0*                               |
| Cost-effectiveness (US \$/kg):                         | Actual: 8.40<br>Threshold: 10.28 |
| Implementing agency support cost (US \$):              | n/a                              |
| Total cost of project to Multilateral Fund (US \$):    | 0                                |
| Status of counterpart funding (Y/N):                   | n/a                              |
| Project monitoring milestones included (Y/N):          | Y                                |

\*Note: No new funding is requested for this project. Potential savings from the foam sector plan of stage I of the HPMP in Mexico will be utilized.

## SECRETARIAT'S RECOMMENDATION

For individual consideration

## PROJECT DESCRIPTION

### Background

1. At the 77<sup>th</sup> meeting, the Government of Mexico included in its annual progress report on the implementation of stage I of the HCFC phase-out management plan (HPMP)<sup>1</sup> a request to reallocate savings from the implementation of the polyurethane (PU) foam sector plan, to convert two eligible enterprises in the extruded polystyrene (XPS) foam sector using HCFCs, and completely phase out the use of HCFC-142b in the country.

2. In reviewing the proposal, the Secretariat noted that the starting point for aggregate reductions in consumption<sup>2</sup> for HCFC-142b was only one ODP tonne (15.38 mt), representing the maximum amount of HCFC-142b eligible for funding. However, the Government of Mexico, through UNDP, explained that the 2008 imports of HCFC-141b and HCFC-142b were incorrectly recorded under the same customs code, allocating a larger consumption to HCFC-141b. This was corrected later by the Government of Mexico; however, at the time of the 77<sup>th</sup> meeting the Ozone Secretariat had not yet provided notification of this correction.

3. The Fund Secretariat analysed the HCFC consumption data and confirmed that since 2005 the Government had consumption of HCFC-142b under Article 7 and the country programme implementation report. In addition, the Secretariat noted that during the discussion for the approval of stage II of the HPMP at the 72<sup>nd</sup> meeting<sup>3</sup>, after having deducted from the starting point the consumption of all eligible and non-eligible enterprises using HCFC-141b, there were still 71.9 ODP tonnes of HCFC-141b that could not be associated to any PU foam, aerosol or solvent enterprise. While this tonnage was deducted from the remaining eligible consumption at no cost to the Fund, it is believed that a portion of it corresponds to HCFC-142b wrongly classified as HCFC-141b.

4. Accordingly, the Executive Committee decided that UNDP, on behalf of the Government of Mexico, could submit a proposal to reallocate savings from the PU foam sector to an investment project to phase out the use of HCFC-142b in the XPS foam manufacturing sector once the 2008 consumption of HCFC-142b had been revised under Article 7 of the Montreal Protocol (decision 77/25(a)(iii)).

### Project description

5. In line with decision 77/25(a)(iii), UNDP has submitted to the 79<sup>th</sup> meeting an investment project to phase out the use of HCFC-142b in the manufacturing of XPS foam plank applications in two enterprises in Mexico at a cost of US \$2,269,000, plus agency support costs of US \$170,175. Implementation of the project will result in the phase-out of 153.97 mt (10.01 ODP tonnes) of HCFC-142b in 2019. By implementing this project, all eligible enterprises in the XPS foam sector will have been addressed and the Government commits not to issue any import quota for HCFC-142b starting 1 January 2020.

6. Under the flexibility clause of the Agreement between the Government of Mexico and the Executive Committee for stage I of the HPMP, the Government is requesting the consideration of the reallocation of expected savings from the implementation of the PU foam sector to implement this project.

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<sup>1</sup>Decision 75/29(a) provision requesting the Government, UNIDO and UNDP to submit progress reports on a yearly basis on the implementation of the work programme associated with the final tranche until the completion of the project, and the project completion report no later than the first meeting of the Executive Committee in 2019.

<sup>2</sup> The starting point for aggregate reductions in HCFC consumption in Mexico was based on the HCFC consumption reported in 2008.

<sup>3</sup> UNEP/OzL.Pro/ExCom/72/33 paragraphs 58 and 59.

Technology selection

7. The selected alternative technology is HFO-1234ze, which requires the use of di-methyl ether (DME) (at a 60:40 proportion) to assure proper blending. As DME is moderately flammable, safety measurements are required. Given that the supply and pricing of HFO-1234ze is not fully assured at present, *interim* use of HFC-134a might be needed.

Enterprises assisted, conversion activities foreseen and incremental cost

8. XPS foam plank applications are currently used in the construction industry where thermal insulation is critical and manufactured by two enterprises: Plasticos Espumados and Termofoam Valladolid. XPS foam plank competes with polyurethane panels, which are more efficient but more expensive.

*Plasticos Espumados*

9. It is a locally owned enterprise that has been manufacturing XPS foam panels since 2004 using one conic twin-screw extruder built in 1987. The project includes the retrofit of the extruder to operate with HFO-1234ze (US \$350,000); a DME tank (US \$100,000) and a single-head blowing-agent pump to allow separate DME/HFO metering (US \$85,000); re-plumbing (US \$5,000); safety elements for the use of DME (US \$85,000); technical assistance (US \$50,000), production trials (US \$50,000), safety audit (US \$20,000) and contingencies (US \$74,000). Incremental operating costs (IOCs) have been estimated at US \$362,000 for a one-year period.

*Termofoam Valladolid*

10. It is a locally owned enterprise that has been manufacturing XPS foam panels since 2005, using two single-screw extruders purchased in 2005. The project includes the replacement of both extruder screws to operate with HFO-1234ze (US \$80,000), a DME tank (US \$100,000) a single-head blowing-agent pump to allow separate DME/HFO metering (US \$75,000), re-plumbing (US \$5,000); safety elements for the use of DME (US \$180,000), technical assistance (US \$50,000), production trials (US \$30,000), safety audit (US \$10,000) and contingencies (US \$53,000). IOCs have been estimated at US \$505,000 for a one-year period.

11. The HCFC-142b consumption by the two enterprises for the last three years is presented in Table 1.

**Table 1. Consumption of HCFC-142b by Plasticos Espumados and Termofoam (2014-2016)(mt)**

| Enterprise          | 2014          | 2015          | 2016          | Average 2014-2016 |
|---------------------|---------------|---------------|---------------|-------------------|
| Plasticos Espumados | 60.44         | 40.08         | 55.55         | 52.00             |
| Termofoam           | 105.79        | 118.77        | 81.35         | 101.97            |
| <b>Total</b>        | <b>166.23</b> | <b>158.85</b> | <b>136.90</b> | <b>153.97</b>     |

12. The summary of the incremental costs is presented in Table 2.

**Table 2: Incremental costs for the conversion of two XPS foam enterprises in Mexico**

| Enterprise          | Consumption 2010-2012 (mt)* | ICC (US \$)      | IOC (US \$)    | Total (US \$)    | Cost-effectiveness (US \$/kg) |
|---------------------|-----------------------------|------------------|----------------|------------------|-------------------------------|
| Plasticos Espumados | 90.00                       | 819,000          | 362,000        | 1,181,000        | 13.12                         |
| Termofoam           | 125.00                      | 583,000          | 505,000        | 1,088,000        | 8.69                          |
| <b>Total</b>        | <b>215.00</b>               | <b>1,402,000</b> | <b>867,000</b> | <b>2,269,000</b> | <b>10.55</b>                  |

\*Cost-effectiveness, as submitted, was calculated based on the average consumption 2010-2012. As per the Fund's policies, projects should be based either on the last year or the average of the last three years consumption.

13. The project duration is 24 months and the estimated date of completion is 1 July 2019. No import quota for HCFC-142b will be issued starting 1 January 2020.

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

#### Modifications in HCFC consumption and adjustment to the Agreements

14. The Secretariat has received confirmation from the Ozone Secretariat that the consumption of HCFC-142b reported in 2008 by Mexico has been corrected from 15.97 mt (1.04 ODP tonnes) to 167.97 mt (10.91 ODP tonnes), and the consumption of HCFC-141b has been corrected from 7,459.73 mt (820.57 ODP tonnes) to 7,307.73 mt (803.85 ODP tonnes)<sup>4</sup>. These changes represent adding 9.88 ODP tonnes of HCFC-142b to, and subtracting 16.72 ODP tonnes of HCFC-141b from the starting point for aggregate reductions in HCFC consumption. The adjustments in the starting point, the consumption addressed by each stage, and the remaining eligible consumption are presented in bold in Table 3.

**Table 3. Original and revised starting point due to correction of HCFC-142b consumption in 2008 (ODP tonnes)**

| Substance | Original starting point/<br><b>Revised</b> | Addressed in stage I/<br><b>Revised</b> | Remaining eligible consumption after stage I/<br><b>Revised</b> | Addressed in stage II/<br><b>Revised</b> | Remaining eligible consumption after stage II/<br><b>Revised</b> |
|-----------|--|---|---|--|--|
| HCFC-22   | 392.8                                      | 24.8                                    | 368.0   | 105.5                                    | 262.5  |
| HCFC-141b | 820.6/ <b>803.9</b>                        | 392.5                                   | 428.1/ <b>411.4</b>   | 428.1/ <b>411.4</b>                      | -  |
| HCFC-142b | 1.0/ <b>10.9</b>                           | 0/ <b>10.9</b>                          | 1.0/ <b>0</b>   | 0  | 1.0/ <b>0</b>  |
| HCFC-123  | 0.3  | 0                                       | 0.3   | 0  | 0.3  |
| HCFC-124  | 0.1  | 0                                       | 0.1   | 0  | 0.1  |
| Total     | 1,214.8/ <b>1,208.0</b>                    | 417.3/ <b>428.2</b>                     | 797.5/ <b>779.8</b>   | 533.6/ <b>516.9</b>                      | 263.9/ <b>262.9</b>  |

15. If the two XPS foam enterprises are converted, a total of 10.01 ODP tonnes of HCFC-142b will be phased out as part of stage I of the HPMP. As the Government of Mexico commits not to issue any import quota for HCFC-142b from 2020, the entire 10.9 ODP tonnes of HCFC-142b in the starting point will be deducted. Accordingly, the remaining eligible consumption after stage II will be reduced by 1.0 ODP tonne (262.9 ODP tonnes instead of 263.9 ODP tonnes).

16. The above changes represent modifications to Appendix 1-A and 2-A of the Updated Agreements between the Government of Mexico and the Executive Committee for the implementation of stages I and II of the HPMP. The modifications to the Updated Agreements are presented in Annexes I and II respectively to the present document. As the projects will be completed before the date of completion of stage I (31 December 2019) the Agreement for stage I does not need to be extended. The full revised agreements will be appended to the final report of the 79<sup>th</sup> meeting.

#### Technology

17. The Secretariat noted that the proposed technology might not be in place at the time the enterprises will be converted requiring using an HFC during an *interim* period. The Secretariat therefore requested, in line with decisions 74/20(a) and 77/35(a)(v), detailed information on how and when an adequate supply of HFO-1234ze and associated components (e.g., additives and others) would be made available to Mexico on a commercial scale in order to allow implementation of the project. The Government of Mexico, through UNDP provided a letter from one HFO supplier indicating that their

<sup>4</sup> Specific correction was made in the imports figure for HCFC-141b, which changed from 7,566.9 mt to 7,414.9 mt. Given the exports of HCFC-141b of 107.17 mt, the resulting consumption is 7,307.73 mt.

product is currently delivered to customers in several countries and that they do not anticipate issues or limitations of supply available to sample customers in Mexico (estimated demand of 500 mt). UNDP also indicated that HFOs are currently being imported for other uses in Mexico, including more than 1,300 mt in 2015, according to the survey on ODS alternatives submitted by the Government of Mexico.

18. Upon further discussion on the subject, UNDP confirmed that no HFCs will be introduced, and that the Government of Mexico will manage the supply of HCFC-142b through the import quota system to ensure that the needs of the enterprises are fulfilled during the time of conversion. UNDP also indicated that it would be possible to complete the full transition to HFOs by 31 December 2019.

19. Although HCFC-22 is not used in the manufacturing of XPS foam in Mexico, the Secretariat suggested UNDP to discuss with the Government of Mexico to consider establishing a ban in the use of HCFCs in the manufacturing of XPS foam in addition to not issuing a quota for imports of HCFC-142b, to ensure complete HCFC phase-out in the sector and to avoid a situation in which the enterprises converted to HFO-1234ze had to compete with other enterprises that could start using HCFC-22 in the manufacturing of XPS foam. UNDP explained that it was not possible for the Government to establish such a ban; however, it noted that HCFC-22 is not used in XPS foam manufacturing in Mexico as the plank produced with HCFC-22 does not comply with the minimum performance requirements of an energy efficiency standard used by the sector.

#### Incremental cost

20. In the case of Plásticos Espumados, discussions on incremental capital cost (ICC) mainly focused on the cost of the extruder retrofit. UNDP clarified that given the size, age and type of extruder, several modifications were needed to improve solubility of the new blowing agent, including the addition of a second screw and cooler with variable pressure. Upon discussions, the cost of equipment (i.e., DME tank installed and certified, single-head blowing agent pump to allow separate DME/HFO metering, and extruder retrofit) was adjusted from US \$540,000 to US \$435,000; the cost of safety-related items was adjusted from US \$105,000 to US \$60,000; and the cost of technical assistance and production of trials from US \$100,000 to US \$60,000. The total ICC for Plásticos Espumados including contingencies was agreed at US \$610,500.

21. In the case of Termofoam, the cost of safety-related items was justified on the use of two extruders and the high ceilings in the facility which required additional air exchangers to reduce risk of fire. Upon discussions on all the items, it was agreed to reduce the safety-related items from US \$190,000 to US \$135,000, equipment from US \$260,000 to US \$215,000, and technical assistance and production of trials from US \$80,000 to US \$75,000. The total ICC including contingencies was agreed at US \$467,500.

22. The IOC for both enterprises were also adjusted to US \$1.40/kg as per the cost guidelines for HCFC phase-out (decisions 60/44(f)(v) and 74/50(c)(v)).

23. Based on the above, the total cost of the project as agreed amounts to US \$1,293,558, with a cost-effectiveness of US \$8.40/kg, as shown in Table 4.

**Table 4: Agreed incremental cost for the conversion of two XPS foam enterprises in Mexico**

| Enterprise          | Consumption<br>2014-2016 (mt) | ICC<br>(US \$)   | IOC<br>(US \$) | Total<br>(US \$) | Cost-effectiveness<br>(US \$/kg) |
|---------------------|-------------------------------|------------------|----------------|------------------|----------------------------------|
| Plásticos Espumados | 52.00                         | 610,500          | 72,800         | 683,300          | 13.14                            |
| Termofoam           | 101.97                        | 467,500          | 142,758        | 610,258          | 5.98                             |
| <b>Total</b>        | <b>153.97</b>                 | <b>1,078,000</b> | <b>215,558</b> | <b>1,293,558</b> | <b>8.40</b>                      |

24. UNDP indicated that the PU foam sector plan included in stage I of the HPMP is about to be completed with estimated savings of US \$2 million. Therefore, remaining savings from the PU foam sector plan after deducting the cost of the XPS foam projects will be returned to the Fund and the enterprises would provide any required co-financing, if needed.

Impact on the climate

25. The conversion of the two XPS foam manufacturing enterprises in Mexico would avoid the emission into the atmosphere of some 354.7 thousand tonnes of CO<sub>2</sub> equivalent per year, as shown in Table 5.

**Table 5. Impact on the climate of the PU foam projects**

| Substance                | GWP   | Tonnes/year | CO <sub>2</sub> -eq (tonnes/year) |
|--------------------------|-------|-------------|-----------------------------------|
| <b>Before conversion</b> |       |             |                                   |
| HCFC-142b                | 2,310 | 153.97      | 355,671                           |
| <b>After conversion</b>  |       |             |                                   |
| HFO-1234ze               | 6     | 153.97      | 924                               |
| <b>Impact</b>            |       |             | <b>(354,747)</b>                  |

**RECOMMENDATION**

26. The Executive Committee may wish to consider:

- (a) Approving the reallocation of US \$1,293,558 from expected savings from the polyurethane (PU) foam sector plan of stage I of the HCFC phase-out management plan (HPMP) for Mexico to the conversion of two extruded polystyrene (XPS) foam manufacturing enterprises from HCFC-142b to HFO-1234ze;
- (b) Deducting 1.0 ODP tonne of HCFCs from the remaining HCFC consumption eligible for funding; and
- (c) Noting:
  - (i) That the remaining savings from the PU foam sector plan and any remaining funds from the XPS foam manufacturing project will be returned to the Fund by the time of completion of stage I in line with paragraph 7(e) of the Agreement for stage I of the HPMP;
  - (ii) The commitment of the Government of Mexico not to issue any import quota for HCFC-142b starting 1 January 2020;
  - (iii) That the revised starting point for sustained aggregate reduction in HCFC consumption is 1,208.0 ODP tonnes, calculated based on the revised data on imports of HCFC-141b and HCFC-142b for the year 2008 submitted by the Government of Mexico under Article 7 of the Montreal Protocol; and

- (iv) That the Updated Agreements between the Government of Mexico and the Executive Committee for stages I and II of its HPMPs had been revised to reflect the changes in Appendix 1-A and Appendix 2-A (the starting point for sustained aggregate reduction in HCFC consumption and the remaining eligible consumption) and to revise paragraph 16 to indicate that the Revised Updated Agreements for stages I and II supersede those reached at the 73<sup>rd</sup> and 77<sup>th</sup> meetings respectively, as contained in Annexes I and II to the present document.



**Annex I**

**TEXT TO BE INCLUDED IN THE DRAFT REVISED UPDATED AGREEMENT BETWEEN  
THE GOVERNMENT OF MEXICO AND THE EXECUTIVE COMMITTEE OF THE  
MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF  
HYDROCHLOROFLUOROCARBONS (STAGE I)**  
(Relevant changes are in bold font for ease of reference)

16. This revised Agreement supersedes the Updated Agreement reached between the Government of Mexico and the Executive Committee at the 73<sup>rd</sup> meeting of the Executive Committee.

**APPENDICES**

**APPENDIX 1-A: THE SUBSTANCES**

| Substance | Annex | Group | Starting point for aggregate reductions in consumption<br>(ODP tonnes) |
|-----------|-------|-------|--|
| HCFC-22   | C     | I     | 392.8  |
| HCFC-141b | C     | I     | <b>803.9</b>   |
| HCFC-142b | C     | I     | <b>10.9</b>  |
| HCFC-123  | C     | I     | 0.3  |
| HCFC-124  | C     | I     | 0.1  |
| Total     | C     | I     | <b>1,208.0</b>   |

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

| Row   | Particulars  | 2009       | 2011        | 2012      | 2013      | 2014    | 2015      | 2016    | 2017    | 2018    | Total        |
|-------|--|------------|-------------|-----------|-----------|---------|-----------|---------|---------|---------|--------------|
| 1.1   | Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)     | n/a        | n/a         | n/a       | 1,148.8   | 1,148.8 | 1,033.9   | 1,033.9 | 1,033.9 | 1,033.9 | n/a          |
| 1.2   | Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)      | n/a        | n/a         | n/a       | 1,148.8   | 1,148.8 | 1,033.9   | 1,033.9 | 1,033.9 | 746.72  | n/a          |
| 2.1   | Lead IA (UNIDO) agreed funding (US \$)   | 0          | 2,792,526   | 695,011   | 578,341   | 120,000 | 226,317   | 0       | 0       | 0       | 4,412,195    |
| 2.2   | Support costs for Lead IA (US \$)  | 0          | 209,439     | 52,126    | 43,376    | 9,000   | 16,974    | 0       | 0       | 0       | 330,915      |
| 2.3   | Cooperating IA (UNDP) agreed funding (US \$)   | 2,428,987  | 2,502,526   | 3,800,000 | 3,800,000 | 0       | 1,122,503 | 0       | 0       | 0       | 13,654,016   |
| 2.4   | Support costs for Cooperating IA (US \$)   | 182,174    | 187,689     | 285,000   | 285,000   | 0       | 84,188    | 0       | 0       | 0       | 1,024,051    |
| 3.1   | Total agreed funding (US \$)   | 2,428,987  | 5,295,052   | 4,495,011 | 4,378,341 | 120,000 | 1,348,820 | 0       | 0       | 0       | 18,066,211   |
| 3.2   | Total support costs (US \$)  | 182,174    | 397,128     | 337,126   | 328,376   | 9,000   | 101,162   | 0       | 0       | 0       | 1,354,966    |
| 3.3   | Total agreed costs (US \$)   | 2,611,161* | 5,692,180** | 4,832,137 | 4,706,717 | 129,000 | 1,449,982 | 0       | 0       | 0       | 19,421,177   |
| 4.1.1 | Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)   |            |             |           |           |         |           |         |         |         | 4.7          |
| 4.1.2 | Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)*    |            |             |           |           |         |           |         |         |         | 20.1         |
| 4.1.3 | Remaining eligible consumption for HCFC-22 (ODP tonnes)                              |            |             |           |           |         |           |         |         |         | 368.0        |
| 4.2.1 | Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes) |            |             |           |           |         |           |         |         |         | 345.8        |
| 4.2.2 | Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)** |            |             |           |           |         |           |         |         |         | 46.7         |
| 4.2.3 | Remaining eligible consumption for HCFC-141b (ODP tonnes)                            |            |             |           |           |         |           |         |         |         | <b>411.4</b> |
| 4.3.1 | Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes) |            |             |           |           |         |           |         |         |         | <b>10.9</b>  |
| 4.3.2 | Phase-out of HCFC-142b to be achieved in previously approved projects (ODP tonnes)   |            |             |           |           |         |           |         |         |         | 0.0          |
| 4.3.3 | Remaining eligible consumption for HCFC-142b (ODP tonnes)                            |            |             |           |           |         |           |         |         |         | <b>0.0</b>   |
| 4.4.1 | Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)  |            |             |           |           |         |           |         |         |         | 0.0          |
| 4.4.2 | Phase-out of HCFC-123 to be achieved in previously approved projects (ODP tonnes)    |            |             |           |           |         |           |         |         |         | 0.0          |
| 4.4.3 | Remaining eligible consumption for HCFC-123 (ODP tonnes)                             |            |             |           |           |         |           |         |         |         | 0.3          |
| 4.5.1 | Total phase-out of HCFC-124 agreed to be achieved under this Agreement (ODP tonnes)  |            |             |           |           |         |           |         |         |         | 0.0          |
| 4.5.2 | Phase-out of HCFC-124 to be achieved in previously approved projects (ODP tonnes)    |            |             |           |           |         |           |         |         |         | 0.0          |
| 4.5.3 | Remaining eligible consumption for HCFC-124 (ODP tonnes)                             |            |             |           |           |         |           |         |         |         | 0.1          |

\* Approved at the 59<sup>th</sup> meeting for UNDP for Mabe.

\*\* US \$559,985 approved at the 63rd meeting for UNIDO for Silimex.

**Annex II**

**TEXT TO BE INCLUDED IN THE DRAFT REVISED UPDATED AGREEMENT BETWEEN  
THE GOVERNMENT OF MEXICO AND THE EXECUTIVE COMMITTEE OF THE  
MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF  
HYDROCHLOROFLUOROCARBONS (STAGE II)**  
(Relevant changes are in bold font for ease of reference)

16. This revised Agreement supersedes the Updated Agreement reached between the Government of Mexico and the Executive Committee at the 77<sup>th</sup> meeting of the Executive Committee.

**APPENDICES**

**APPENDIX 1-A: THE SUBSTANCES**

| Substance | Annex | Group | Starting point for aggregate reductions in consumption (ODP tonnes) |
|-----------|-------|-------|---|
| HCFC-22   | C     | I     | 392.8   |
| HCFC-141b | C     | I     | <b>803.9</b>  |
| HCFC-142b | C     | I     | <b>10.9</b>   |
| HCFC-123  | C     | I     | 0.3   |
| HCFC-124  | C     | I     | 0.1   |
| Total     | C     | I     | <b>1,208</b>  |

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

| Row   | Particulars  | 2014      | 2015     | 2016      | 2018      | 2020      | 2022    | Total      |              |
|-------|--|-----------|----------|-----------|-----------|-----------|---------|------------|--------------|
| 1.1   | Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)     | 1,148.80  | 1,033.92 | 1,033.92  | 1,033.92  | 746.72    | 746.72  | n/a        |              |
| 1.2   | Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)      | 1,148.80  | 1,033.92 | 1,033.92  | 746.72    | 574.40    | 373.36  | n/a        |              |
| 2.1   | Lead IA (UNIDO) agreed funding (US \$)   | 2,404,412 | 0        | 1,165,509 | 2,139,719 | 1,612,350 | 450,600 | 7,772,590  |              |
| 2.2   | Support costs for Lead IA (US \$)  | 168,309   | 0        | 81,586    | 149,780   | 112,865   | 31,542  | 544,082    |              |
| 2.3   | Cooperating IA (Germany) agreed funding (US \$)                                      | 325,000   | 0        | 325,000   | 0         | 0         | 0       | 650,000    |              |
| 2.4   | Support costs for Cooperating IA (US \$)   | 40,750    | 0        | 40,750    | 0         | 0         | 0       | 81,500     |              |
| 2.5   | Cooperating IA (Italy) agreed funding (US \$)  | 458,191   | 0        | 0         | 0         | 0         | 0       | 458,191    |              |
| 2.6   | Support costs for Cooperating IA (US \$)   | 59,565    | 0        | 0         | 0         | 0         | 0       | 59,565     |              |
| 2.7   | Cooperating IA (UNEP) agreed funding (US \$)   | 0         | 0        | 40,000    | 0         | 40,000    | 0       | 80,000     |              |
| 2.8   | Support costs for Cooperating IA (US \$)   | 0         | 0        | 5,200     | 0         | 5,200     | 0       | 10,400     |              |
| 2.9   | Cooperating IA (Spain) agreed funding (US \$)  | 0         | 0        | 1,056,991 | 1,070,000 | 0         | 0       | 2,126,991  |              |
| 2.10  | Support costs for Cooperating IA (US \$)   | 0         | 0        | 121,238   | 122,731   | 0         | 0       | 243,969    |              |
| 3.1   | Total agreed funding (US \$)   | 3,187,603 | 0        | 2,587,500 | 3,209,719 | 1,652,350 | 450,600 | 11,087,772 |              |
| 3.2   | Total support costs (US \$)  | 268,624   | 0        | 248,774   | 272,511   | 118,065   | 31,542  | 939,516    |              |
| 3.3   | Total agreed costs (US \$)   | 3,456,227 | 0        | 2,836,274 | 3,482,230 | 1,770,415 | 482,142 | 12,027,288 |              |
| 4.1.1 | Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)   |           |          |           |           |           |         |            | 105.5        |
| 4.1.2 | Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)     |           |          |           |           |           |         |            | 24.8         |
| 4.1.3 | Remaining eligible consumption for HCFC-22 (ODP tonnes)                              |           |          |           |           |           |         |            | 262.5        |
| 4.2.1 | Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes) |           |          |           |           |           |         |            | <b>411.4</b> |
| 4.2.2 | Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)   |           |          |           |           |           |         |            | 392.5        |
| 4.2.3 | Remaining eligible consumption for HCFC-141b (ODP tonnes)                            |           |          |           |           |           |         |            | 0.0          |
| 4.3.1 | Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes) |           |          |           |           |           |         |            | 0.0          |
| 4.3.2 | Phase-out of HCFC-142b to be achieved in previously approved projects (ODP tonnes)   |           |          |           |           |           |         |            | <b>10.9</b>  |
| 4.3.3 | Remaining eligible consumption for HCFC-142b (ODP tonnes)                            |           |          |           |           |           |         |            | <b>0.0</b>   |
| 4.4.1 | Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)  |           |          |           |           |           |         |            | 0.0          |
| 4.4.2 | Phase-out of HCFC-123 to be achieved in previously approved projects (ODP tonnes)    |           |          |           |           |           |         |            | 0.0          |
| 4.4.3 | Remaining eligible consumption for HCFC-123 (ODP tonnes)                             |           |          |           |           |           |         |            | 0.3          |
| 4.5.1 | Total phase-out of HCFC-124 agreed to be achieved under this Agreement (ODP tonnes)  |           |          |           |           |           |         |            | 0.0          |
| 4.5.2 | Phase-out of HCFC-124 to be achieved in previously approved projects (ODP tonnes)    |           |          |           |           |           |         |            | 0.0          |
| 4.5.3 | Remaining eligible consumption for HCFC-124 (ODP tonnes)                             |           |          |           |           |           |         |            | 0.1          |