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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Ninety-fifth Meeting  
Montreal, 4-8 December 2024  
Item 7(a)(vi) of the provisional agenda<sup>1</sup>

**PROGRESS REPORT OF THE WORLD BANK AS AT 31 DECEMBER 2023****Introduction**

1. This document presents the progress report of the World Bank as at 31 December 2023.<sup>2</sup>
2. The progress report of the World Bank includes the status of implementation of projects, including five HFC-related projects that have been funded under the additional voluntary contributions by 17 non-Article 5 Parties to provide fast start support for implementation of the Kigali Amendment.
3. The Secretariat reviewed the status of implementation of each ongoing project on a country-by-country basis, taking into account implementation delays that have occurred with respect to planned completion dates that had been reported in 2023, the potential impact of these delays on the phase-out of controlled substances and the rate of planned disbursements. The analysis contained in the present document is based on ODP tonnes for all controlled substances except for HFCs, which are measured in metric tonnes (mt) and CO<sub>2</sub>-eq tonnes.<sup>3</sup>
4. This document consists of the following sections:
  - I. Projects approved for all controlled substances under the regular contributions to the Multilateral Fund. It presents a summary of progress in implementation of projects for 2023 and cumulative since 1991 addressing all controlled substances under the Montreal Protocol, including Annex F substances (HFCs). It also contains a review on the status of

<sup>1</sup> UNEP/OzL.Pro/ExCom/95/1

<sup>2</sup> The progress report is attached to the present document. The data has been included in the Consolidated Progress Report database, which is provided on the 95<sup>th</sup> meeting portal on the Multilateral Fund's website, in the spreadsheet programme, Microsoft Excel.

<sup>3</sup> In line with decision 84/12(a)(iv), the measurement for HFCs in CO<sub>2</sub>-eq tonnes is included in the progress reports submitted to the 95<sup>th</sup> meeting.

implementation of each ongoing<sup>4</sup> project at the country level. It identifies projects with implementation delays and the potential impact on the phase-out of controlled substances, and projects with outstanding issues for consideration by the Executive Committee.

II. Projects approved for Annex F substances (HFCs) under the additional voluntary contributions for fast-start support for HFC phase-down.

III. Recommendation.

## I. Projects approved for all controlled substances under the regular contributions to the Multilateral Fund

### I.1 Progress in implementation of projects for 2023 and cumulative since 1991

5. As of 31 December 2023, the Executive Committee had approved US \$1.33 billion in projects for the World Bank, consisting of US \$1.21 billion for the implementation of investment and non-investment projects and US \$127.72 million for agency support costs, as shown in table 1.

**Table 1. Approved funding by sector for the World Bank as at 31 December 2023**

| Sector                      | Funding (US \$)      |
|-----------------------------|----------------------|
| Aerosol                     | 22,984,030           |
| Destruction                 | 500,000              |
| Energy efficiency           | 60,000               |
| Foam                        | 136,059,064          |
| Halon                       | 70,221,038           |
| HFC phase-down plan         | 5,585,704            |
| Fumigants                   | 5,837,887            |
| Multiple sectors            | 2,341,168            |
| Other                       | 5,059,360            |
| Phase-out plan              | 222,655,585          |
| Process agent               | 114,342,497          |
| Production                  | 400,943,496          |
| Refrigeration               | 180,259,970          |
| Several                     | 29,413,466           |
| Solvents                    | 10,237,394           |
| Sterilant                   | 661,227              |
| <b>Sub-total</b>            | <b>1,207,161,885</b> |
| <b>Agency support costs</b> | <b>127,723,299</b>   |
| <b>Total</b>                | <b>1,334,885,184</b> |

6. In 2023, 24 new projects and activities were approved. This level of funding is expected to result in the phase-out of 313,447 ODP tonnes of consumption and production of ODS and 750.4 mt (1,388,279 CO<sub>2</sub>-eq tonnes) of consumption of HFCs. Annex I shows the status of project implementation per country in 2023.

7. Table 2 shows the status of project implementation including fund disbursement per project type as at 31 December 2023. Annex II presents analytical information per year since 1991.

<sup>4</sup> Ongoing projects are all projects that were under implementation as at 31 December 2023. Key indicators of progress include percentage of funds disbursed and percentage of projects that have begun disbursing funds; funding expected to be disbursed by the end of the year as a percentage of the approved funding; the average length of projected delay in implementation; and information provided in the remarks column in the progress report database.

**Table 2. Status of project implementation by type as at 31 December 2023**

| Type                             | Number of projects* |              |             | Funding (US \$)**    |                      |                   |             |
|----------------------------------|---------------------|--------------|-------------|----------------------|----------------------|-------------------|-------------|
|                                  | Approved            | Completed    | % completed | Approved             | Disbursed            | Balance ***       | % disbursed |
| Country programme                | 29                  | 29           | 100         | 1,627,732            | 1,627,732            | 0                 | 100         |
| Demonstration                    | 8                   | 8            | 100         | 6,172,901            | 6,172,901            | 0                 | 100         |
| Institutional strengthening (IS) | 51                  | 49           | 96          | 10,013,716           | 9,710,320            | 303,396           | 97          |
| Investment                       | 654                 | 633          | 97          | 1,147,306,108        | 1,106,559,426        | 40,746,682        | 96          |
| Project preparation              | 304                 | 297          | 98          | 28,028,320           | 27,201,415           | 826,905           | 97          |
| Technical assistance             | 78                  | 75           | 96          | 13,707,342           | 15,505,735           | -1,798,393        | 113         |
| Training                         | 4                   | 4            | 100         | 305,766              | 305,766              | 0                 | 100         |
| <b>Total</b>                     | <b>1,128</b>        | <b>1,095</b> | <b>97</b>   | <b>1,207,161,885</b> | <b>1,167,083,295</b> | <b>40,078,590</b> | <b>97</b>   |

\*Excludes closed and transferred projects.

\*\*Excludes agency support costs.

\*\*\*Negative balances are due to the distribution of funds balances among different tranches of the same HPMP.

8. Implementation of projects and activities by the World Bank for 2023 and cumulative since 1991 up to 31 December 2023, is summarized as follows:

- (a) **Phase-out:**<sup>5</sup> In 2023, 129.1 ODP tonnes of consumption of ODS were phased out<sup>6</sup> and an additional 66.4 ODP tonnes of consumption of ODS and 750.4 mt (1,388,279 CO<sub>2</sub>-eq tonnes) of consumption of HFCs were approved for phase-out. Since 1991, 148,359 ODP tonnes of consumption of ODS and 187,996 ODP tonnes of production of ODS had been phased out,<sup>7</sup> of an expected total of 313,447 ODP tonnes of consumption and production of ODS from projects approved (excluding cancelled and transferred projects);
- (b) **Disbursements/approvals:** In 2023, US \$8.44 million was disbursed and US \$18.16 million was planned for disbursement based on the 2022 progress report, representing a rate of disbursement of 46 per cent of that planned. Cumulatively, US \$1.17 billion had been disbursed out of the total US \$1.21 billion approved for disbursement (excluding agency support costs), representing a rate of disbursement of 97 per cent. In 2023, US \$15.79 million was approved for implementation;
- (c) **Cost-effectiveness (in ODP):**<sup>8</sup> Since 1991, the average cost-effectiveness of investment projects approved leading to a permanent reduction in consumption was US \$5.53/kg and for the production sector was US \$4.78/kg. The average cost-effectiveness of investment projects per ODP tonne was US \$3.24/kg for completed projects and US \$7.67/kg for ongoing projects;<sup>9</sup>
- (d) **Number of projects completed:** In 2023, 14 projects were completed. Since 1991, 1,095 projects of the 1,128 projects approved (excluding closed or transferred projects) were completed, representing a completion rate of 97 per cent;
- (e) **Speed of delivery – investment projects:** Projects that were completed in 2023 were completed on average 37 months after their approval. Since 1991, the average time for completion of investment projects has been 40 months after their approval. First

<sup>5</sup> Phase-out of ODS is expressed in ODP tonnes and of HFCs in mt and CO<sub>2</sub>-eq tonnes.

<sup>6</sup> No phase-out for HFC-related projects in 2023.

<sup>7</sup> No phase-out so far for HFC-related projects.

<sup>8</sup> Including 750.4 mt of HFC-related projects. Cost-effectiveness in CO<sub>2</sub>-eq. is not included due to the limited number of projects approved.

<sup>9</sup> The higher value of the cost-effectiveness for ongoing projects is largely due to the lower ODP values of HCFCs but also due to the means of assigning phase-out by agencies.

disbursements under these projects occurred, on average, 24 months after they had been approved;

- (f) **Speed of delivery – non-investment projects:** Projects that were completed in 2023 were completed on average 36 months after their approval. Since 1991, the average time for completion of non-investment projects has been 35 months after their approval. First disbursements under these projects occurred, on average, 22 months after they had been approved;
- (g) **Project preparation:** Of the 304 project preparation activities approved by the end of 2023, 297 have been completed, leaving seven ongoing activities. In 2023, six preparation activities have been completed;
- (h) **Implementation delays:** A total of 33 projects were under implementation at the end of 2023, experiencing, on average, a delay of 10 months. Five of these projects are classified as “projects with implementation delays”<sup>10</sup> that are subject to the procedures of project cancellation (as demonstration projects, project preparation, and IS are not subject to those procedures); and
- (i) **Multi-year agreements (MYAs):** In 2023, four MYAs for HCFC phase-out management plans (HPMPs), one HCFC production phase-out management plan (HPPMP) and two Kigali HFC implementation plans (KIPs) were under implementation. Since 1991, 43 MYAs have been approved and 36 MYAs have been completed, representing a completion rate of 84 per cent.

9. Table 3 summarizes progress made by the World Bank since 1991.

**Table 3. Progress made by the World Bank since 1991**

| Phase out achieved |                            | Disbursement (US \$) | Average CE (US\$/kg) |            | Number of projects |           | Speed of delivery for completion (months) |                | Average project delays (months) | Number of MYAs |           |
|--------------------|----------------------------|----------------------|----------------------|------------|--------------------|-----------|-------------------------------------------|----------------|---------------------------------|----------------|-----------|
| ODP tonnes*        | CO <sub>2</sub> -eq tonnes |                      | Consumption          | Production | Approved           | Completed | Investment                                | Non-investment |                                 | Approved       | Completed |
| 336,355            | 0                          | 1,167,083,295        | 5.53                 | 4.78       | 1,128              | 1,095     | 40                                        | 35             | 10                              | 43             | 36        |

\*Consumption and production of ODS.

#### HFC-related projects

10. As of 31 December 2023, the Executive Committee had approved 17 HFC-related projects under regular contributions amounting to US \$5,645,704 (excluding agency support costs). A summary of the status of these projects is presented in table 4 and the respective data has already been included in paragraphs 5 to 9.

**Table 4. HFC-related projects approved under regular contributions**

| Type                       | Number of projects |           |             | Funding (US \$)* |                |                  |             |
|----------------------------|--------------------|-----------|-------------|------------------|----------------|------------------|-------------|
|                            | Approved           | Completed | % completed | Approved         | Disbursed      | Balance          | % disbursed |
| Investment – KIP stage I** | 8                  | 0         | 0           | 4,600,704        | 0              | 4,600,704        | 0           |
| Preparation                | 9                  | 5         | 56          | 1,045,000        | 488,095        | 556,905          | 47          |
| <b>Total</b>               | <b>17</b>          | <b>5</b>  | <b>29</b>   | <b>5,645,704</b> | <b>488,095</b> | <b>5,157,609</b> | <b>9</b>    |

\* Excludes agency support costs.

\*\* 750.4 mt (1,388,279 CO<sub>2</sub>-eq tonnes) of HFCs was approved for phase-out.

<sup>10</sup> Projects approved over 18 months with disbursement less than 1 per cent, or projects that had not been completed 12 months after the proposed completion date in the progress report (decision 22/61).

11. Of the total cumulative funding approved of US \$5,645,704, US \$488,095 had been disbursed, representing a disbursement rate of 9 per cent. Five of the nine preparation activities were completed in 2023. The remaining four are expected to be completed in 2025. All the eight investment projects for stage I of KIPs were approved in 2023 and are expected to be completed in 2026.

## I.2 Issues identified in project implementation in 2023

12. Further to the review process, several issues were discussed and satisfactorily addressed, except for issues on five projects related to components of MYAs, classified as projects with implementation delays that are subject to procedures for project cancellation, in line with decision 84/45(c). Annex III to the present document presents those projects classified with implementation delays, and the Secretariat's recommendations requesting the submission of a report to the 96<sup>th</sup> meeting.

13. Details of progress in implementation of projects associated with the HPMPs for China (polyurethane foam sector plan)<sup>11</sup> and Jordan<sup>12</sup> and the HPPMP<sup>13</sup> for China, and a report on a project with specific reporting requirements<sup>14</sup> associated with the HPMP of Viet Nam has been submitted to the 95<sup>th</sup> meeting. Recommendations for outstanding issues for these projects, including approval of extension requests, if any, are addressed in the relevant sections of those documents. The issues relating to the HPMP for Thailand, the tranche of which was due at the 95<sup>th</sup> meeting but was not submitted, are addressed in the document on tranche submission delays.<sup>15</sup> Outstanding issues for the remaining ongoing projects not included in annex III to the present document, and requests for extension of dates of completion, are addressed below.

14. Of the 24 ongoing projects, excluding IS and project preparation, six projects have revised planned dates of completion since the 2022 progress report.

15. In line with decision 82/11(c)(ii), the Secretariat noted that renewal of the IS project for Thailand had not been submitted for the last two years. The World Bank indicated that there remain sufficient funds available for implementation and is planning to submit the renewal request to the 96<sup>th</sup> meeting.

16. In line with decision 82/11(b),<sup>16</sup> the World Bank has requested the extension of the duration of five projects, as shown in table 5.

**Table 5. Projects for which an extension of the completion dates has been requested**

| Country/<br>project code       | Project title                                                                                                         | Disburse-<br>ment<br>(%) | Status/issues                                                                                                                                                         | Original<br>date of<br>completion | Date of<br>completion<br>requested |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------|
| Thailand<br>THA/PHA/82/INV/179 | HCFC phase-out management plan (stage II, first tranche) (spray foam sector)                                          | 53                       | Additional time required to provide support to small spray foam companies and to implement the remaining training activities for technicians in the servicing sector. | Dec-24                            | Jun-25                             |
| Thailand<br>THA/PHA/82/TAS/177 | HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector and project management unit) | 69                       |                                                                                                                                                                       |                                   |                                    |
| Thailand<br>THA/PHA/92/INV/181 | HCFC phase-out management plan (stage II, second tranche) (PMU)                                                       | 94                       |                                                                                                                                                                       |                                   |                                    |

<sup>11</sup> UNEP/OzL.Pro/ExCom/95/47

<sup>12</sup> UNEP/OzL.Pro/ExCom/95/61

<sup>13</sup> UNEP/OzL.Pro/ExCom/95/SGP/3

<sup>14</sup> UNEP/OzL.Pro/ExCom/95/20 or UNEP/OzL.Pro/ExCom/95/21

<sup>15</sup> UNEP/OzL.Pro/ExCom/95/24

<sup>16</sup> Any request for an extension would have to be submitted for approval by the Executive Committee in advance of the project completion date, noting that no new commitments were to be made before the extension had been approved.

| Country/<br>project code       | Project title                                                                               | Disbursement<br>(%) | Status/issues | Original<br>date of<br>completion | Date of<br>completion<br>requested |
|--------------------------------|---------------------------------------------------------------------------------------------|---------------------|---------------|-----------------------------------|------------------------------------|
| Thailand<br>THA/PHA/92/INV/182 | HCFC phase-out management plan (stage II, second tranche) (refrigeration servicing sector)  | 0                   |               |                                   |                                    |
| Thailand<br>THA/PHA/92/INV/183 | HCFC phase-out management plan (stage II, second tranche) (spray foam manufacturing sector) | 0                   |               |                                   |                                    |

### Gender mainstreaming<sup>17</sup>

17. The World Bank reported that in 2023, two countries were reporting on gender mainstreaming: Malaysia (preparation of the KIP and KIP (stage I, first tranche)); and Viet Nam (preparation of HPMP (stage III), HPMP (stage III, first tranche), preparation of the KIP, and KIP (stage I, first tranche)).

18. In both countries, the consultations held included gender mainstreaming and gender aspects related to project implementation. Further, the relevant departments (the Department of Environment in Malaysia and the Department of Climate Change in Viet Nam) agreed to pay continued attention to gender mainstreaming and to seek out opportunities to help foster gender mainstreaming in project activities under their direct control. Gender actions will be reflected in the overarching project under the relevant project agreements.

## **II. Projects approved under the additional voluntary contributions for fast-start support for HFC phase-down**

19. As of 31 December 2023, the Executive Committee had approved five HFC-related projects under the additional voluntary contributions amounting to US \$957,594 (excluding agency support costs). A summary of the status of these projects is presented in table 6.

**Table 6. Status of approved HFC-related projects as of the end of 2023**

| Type                | Number of projects* |           |             | Funding (US \$)** |                |          |             |
|---------------------|---------------------|-----------|-------------|-------------------|----------------|----------|-------------|
|                     | Approved            | Completed | % completed | Approved          | Disbursed      | Balance  | % disbursed |
| Investment***       | 1                   | 1         | 100         | 183,514           | 183,514        | 0        | 100         |
| Project preparation | 1                   | 1         | 100         | 30,000            | 30,000         | 0        | 100         |
| Enabling activities | 3                   | 3         | 100         | 744,080           | 744,080        | 0        | 100         |
| <b>Total</b>        | <b>5</b>            | <b>5</b>  | <b>100</b>  | <b>957,594</b>    | <b>957,594</b> | <b>0</b> | <b>100</b>  |

\* Excludes transferred projects.

\*\* Excludes agency support costs.

\*\*\* 8.8 mt (12,555 CO<sub>2</sub>-eq tonnes) of HFCs was approved and phased out.

20. As of the end of 2023, all the five activities approved had been completed.

21. The total cumulative funding approved of US \$957,594 had been disbursed, representing a disbursement rate of 100 per cent.

<sup>17</sup> The Executive Committee requested bilateral and implementing agencies to provide a brief report on key gender mainstreaming results achieved as part of their annual progress reports, as of 2023, on the basis of the information available to them (decision 90/48(d)).

### **III. Recommendation**

22. The Executive Committee may wish:

- (a) To note the progress report of the World Bank as at 31 December 2023 contained in document UNEP/OzL.Pro/ExCom/95/19;
- (b) To approve the extension, to 30 June 2025, of the completion date of stage II of the HCFC phase-out management plan for Thailand (first tranche (spray foam sector) (THA/PHA/82/INV/179) and (refrigeration servicing sector and project management unit) (THA/PHA/82/TAS/177); and second tranche (PMU) (THA/PHA/92/INV/181), (refrigeration servicing sector) (THA/PHA/92/INV/182) and (spray foam manufacturing sector) (THA/PHA/92/INV/183)) to allow completion of the remaining ongoing activities, as reflected in table 5 of document UNEP/OzL.Pro/ExCom/95/19; and
- (c) To approve the recommendations related to ongoing projects with specific issues contained in annex III to the present document.



## Annex I

### OVERVIEW OF STATUS OF PROJECT IMPLEMENTATION FOR THE WORLD BANK PER COUNTRY FOR 2023

1. Table 1 of annex I presents the status of project implementation by country for 2023 in achieved phased out, planned and achieved disbursements and project completion.

**Table 1. Status of project implementation by the World Bank for 2023**

| Country            | Phased out<br>in 2023<br>(ODP<br>tonnes) | Phased out<br>in 2023<br>(CO <sub>2</sub> -eq<br>tonnes)* | Estimated<br>funds<br>disbursed in<br>2023 (US\$) | Funds<br>disbursed in<br>2023 (US\$) | Percentage of<br>funds disbursed<br>over estimation<br>in 2023 | Percentage of<br>planned projects<br>completed in<br>2023** |
|--------------------|------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------|
| China              | 0.0                                      | 0                                                         | 12,000,000                                        | 2,000,000                            | 17                                                             | 50                                                          |
| Indonesia          | 0.0                                      | 0                                                         | 995,010                                           | 988,382                              | 99                                                             | 100                                                         |
| Jordan             | 0.0                                      | 0                                                         | 1,388,425                                         | 413,120                              | 30                                                             | 0                                                           |
| Malaysia           | 0.0                                      | 0                                                         | 217,000                                           | 164,199                              | 76                                                             | 100                                                         |
| Thailand           | 0.0                                      | 0                                                         | 867,004                                           | 1,070,787                            | 124                                                            | 25                                                          |
| Vietnam            | 129.1                                    | 0                                                         | 2,696,687                                         | 3,804,714                            | 141                                                            | 100                                                         |
| Global***          | 0.0                                      | 0                                                         | 0                                                 | 0                                    |                                                                | 100                                                         |
| <b>Grand total</b> | <b>129.1</b>                             | <b>0</b>                                                  | <b>18,164,126</b>                                 | <b>8,441,202</b>                     | <b>46</b>                                                      | <b>50</b>                                                   |

\* No phase-out in 2023 for HFC-related projects.

\*\* For projects that were planned to be completed in 2023.

\*\*\* 2023 core unit.



## Annex II

### OVERVIEW OF STATUS OF PROJECT IMPLEMENTATION FOR THE WORLD BANK PER YEAR AS AT 31 DECEMBER 2023

1. Table 1 of annex II presents an overview of the status of project implementation by year.<sup>1</sup> All projects and activities approved between 1991 and 2015, 2017 and 2020, have now been completed.

**Table 1. Status of project implementation by year**

| Year         | Number of projects* |              |             | Funding (US \$)**    |                      |                   |             |
|--------------|---------------------|--------------|-------------|----------------------|----------------------|-------------------|-------------|
|              | Approved            | Completed    | % completed | Approved             | Disbursed            | Balance           | % disbursed |
| 1991         | 42                  | 42           | 100         | 5,429,404            | 5,429,404            | 0                 | 100         |
| 1992         | 76                  | 76           | 100         | 28,047,705           | 28,047,705           | 0                 | 100         |
| 1993         | 79                  | 79           | 100         | 42,538,405           | 42,538,405           | 0                 | 100         |
| 1994         | 91                  | 91           | 100         | 41,081,267           | 41,081,267           | 0                 | 100         |
| 1995         | 112                 | 112          | 100         | 47,224,186           | 47,224,186           | 0                 | 100         |
| 1996         | 55                  | 55           | 100         | 29,319,479           | 29,319,479           | 0                 | 100         |
| 1997         | 95                  | 95           | 100         | 56,173,102           | 56,173,103           | -1                | 100         |
| 1998         | 59                  | 59           | 100         | 35,959,418           | 35,959,417           | 1                 | 100         |
| 1999         | 73                  | 73           | 100         | 64,173,138           | 64,173,138           | 0                 | 100         |
| 2000         | 67                  | 67           | 100         | 36,982,134           | 36,982,133           | 1                 | 100         |
| 2001         | 29                  | 29           | 100         | 55,212,853           | 55,212,854           | -1                | 100         |
| 2002         | 32                  | 32           | 100         | 64,357,778           | 64,357,778           | 0                 | 100         |
| 2003         | 24                  | 24           | 100         | 72,734,119           | 72,734,119           | 0                 | 100         |
| 2004         | 29                  | 29           | 100         | 77,111,770           | 77,111,770           | 0                 | 100         |
| 2005         | 28                  | 28           | 100         | 68,592,865           | 68,592,865           | 0                 | 100         |
| 2006         | 22                  | 22           | 100         | 64,473,260           | 64,473,260           | 0                 | 100         |
| 2007         | 25                  | 25           | 100         | 66,005,270           | 66,005,270           | 0                 | 100         |
| 2008         | 28                  | 28           | 100         | 39,934,666           | 39,934,666           | 0                 | 100         |
| 2009         | 22                  | 22           | 100         | 25,529,554           | 25,529,554           | 0                 | 100         |
| 2010         | 16                  | 16           | 100         | 1,148,623            | 1,148,623            | 0                 | 100         |
| 2011         | 10                  | 10           | 100         | 44,201,956           | 44,335,997           | -134,041          | 100         |
| 2012         | 10                  | 10           | 100         | 11,698,145           | 11,698,145           | 0                 | 100         |
| 2013         | 7                   | 7            | 100         | 43,736,999           | 43,602,958           | 134,041           | 100         |
| 2014         | 13                  | 13           | 100         | 28,336,509           | 28,336,509           | 0                 | 100         |
| 2015         | 13                  | 13           | 100         | 62,990,648           | 62,990,648           | 0                 | 100         |
| 2016         | 18                  | 17           | 94          | 12,601,632           | 12,601,632           | 0                 | 100         |
| 2017         | 3                   | 3            | 100         | 1,651,291            | 1,651,291            | 0                 | 100         |
| 2018         | 7                   | 3            | 43          | 26,408,870           | 25,786,875           | 621,995           | 98          |
| 2019         | 3                   | 2            | 67          | 2,579,179            | 2,141,404            | 437,775           | 83          |
| 2020         | 2                   | 2            | 100         | 2,067,012            | 2,067,012            | 0                 | 100         |
| 2021         | 7                   | 5            | 71          | 9,622,863            | 9,348,173            | 274,690           | 97          |
| 2022         | 7                   | 5            | 71          | 23,443,422           | 308,710              | 23,134,712        | 1           |
| 2023         | 24                  | 1            | 4           | 15,794,363           | 184,945              | 15,609,418        | 1           |
| <b>Total</b> | <b>1,128</b>        | <b>1,095</b> | <b>97</b>   | <b>1,207,161,885</b> | <b>1,167,083,295</b> | <b>40,078,590</b> | <b>97</b>   |

\*Excludes closed and transferred projects.

\*\*Excludes agency support costs.

<sup>1</sup> The data is presented according to the year when a project was approved by the Executive Committee. It treats all approvals (investment and non-investment projects) equally (i.e., an investment project or a funding tranche of an MYA of US \$1 million is considered one project, same as a country programme preparation of US \$30,000). Key indicators from the annual summary are: the percentage of projects completed, ODP tonnes/CO<sub>2</sub>-eq tonnes phased out, and percentage of funds disbursed. There are three types of disbursements: during implementation, after implementation and for retroactively financed projects.



**Annex III**

**ONGOING PROJECTS WITH OUTSTANDING ISSUES IN THE PROGRESS REPORT FOR THE WORLD BANK**

| <b>Country/project code</b>    | <b>Project title</b>                                                                                                      | <b>Disbursement (%)</b> | <b>Status/Issues</b> | <b>Recommendation</b>                                                                                                                   |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| China<br>CPR/PRO/81/INV/593    | HCFC production phase-out management plan (stage II, first tranche)                                                       | 100                     | 12 months delays     | Noting decision 77/8(j), to request the World Bank to report to the 96 <sup>th</sup> meeting on this project with implementation delays |
| Jordan<br>JOR/PHA/77/INV/99    | HCFC phase-out management plan (stage II, first tranche) (polyurethane foam sector)                                       | 100                     | 12 months delays     | Noting decision 77/8(j), to request the World Bank to report to the 96 <sup>th</sup> meeting on this project with implementation delays |
| Jordan<br>JOR/PHA/84/INV/108   | HCFC phase-out management plan (stage II, second tranche) (polyurethane foam sector, project management and coordination) | 57                      | 12 months delays     | To request the World Bank to report to the 96 <sup>th</sup> meeting on this project with implementation delays                          |
| Thailand<br>THA/PHA/82/INV/179 | HCFC phase-out management plan (stage II, first tranche) (spray foam sector)                                              | 53                      | 12 months delays     | To request the World Bank to report to the 96 <sup>th</sup> meeting on this project with implementation delays                          |
| Thailand<br>THA/PHA/82/TAS/177 | HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector and project management unit)     | 69                      | 12 months delays     | To request the World Bank to report to the 96 <sup>th</sup> meeting on this project with implementation delays                          |



## ANNUAL PROGRESS REPORT

BANK-IMPLEMENTED  
MONTREAL PROTOCOL OPERATIONS

January - December 2023

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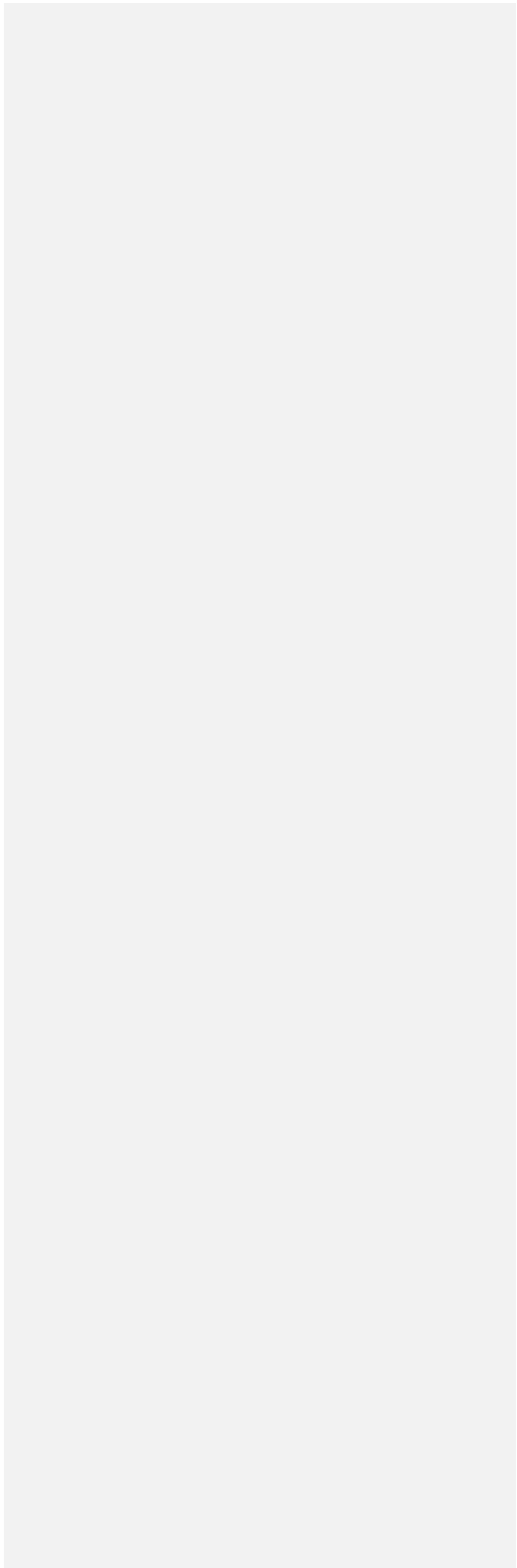


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## I. PROJECT APPROVALS AND DISBURSEMENTS

### A. Annual Summary Data

1. Implementation of World Bank Multilateral Fund (MLF) activities continue to advance in the calendar year 2023. Cumulative ODP consumption and production phaseout is approximately 337,075 metric tonnes (MT). Over 100 percent of the total ODP to be phased out through World Bank conversion and closure projects has been achieved. Cumulative disbursement for the entire World Bank portfolio is over US\$1.16 billion. The twenty three new approvals by the MLF have increased the cumulative number of project activities approved to a net 1,128 (excluding transfers and closed activities). The number of ongoing multi-year projects in the Bank's portfolio, all HCFC phaseout projects, is at six total by end 2023.
2. Implementing Agency performance is measured by a set of eight weighted performance indicators in accordance with Executive Committee Decision 71/28. The "funds disbursed" implementation indicator was met by 46.5% given that the target set in the Bank's 2022 Progress Report was US\$18.12million but actual disbursement only reached US\$8.4million.
3. In 2023, three annual plans were submitted out of five targeted in the approved table of 2023 performance targets set for the World Bank. The target was reached by 75 percent. Regarding the ODP phaseout target which is now covered in one "implementation" indicator (with the most weighting) the World Bank phase-out per the Multilateral Fund (MLF) Secretariat's methodology was 817 ODP MT as compared to 814.6 ODP MT set. There was no actual phaseout in the 2023 calendar year as the phaseout for completed tranches were either claimed previously or not yet claimed. There were also no stand-alone investment projects for additional phaseout in 2023. The target set by the Secretariat for the Bank's 2022 Business Plan is delinked from approved projects and actual phase-out performance. This approach to setting the target includes counting phase-out not approved by the MLF Executive Committee and comparing it to newly approved, planned phase-out. Thus, it does not provide a meaningful indication of actual ODS phase-out achieved through project implementation. World Bank performance for the three implementation indicators is highlighted in Section IV of this annual report.
4. The World Bank met all three "administrative" indicators for 2023. The 2023 Progress Report was submitted on time and 100% of 2023 project activities that completed financially were done so within 12 months.
5. According to Decision 41/93, the MLF Secretariat was requested to continue to monitor traditional indicators of performance on the basis of trend analysis. These indicators include value of projects approved, cost of project preparation, cost-effectiveness, distribution of projects among countries, speed of first disbursement, and speed of completion. The 2023 outcomes in relation to these traditional indicators are also provided in Section IV.

Table I-1: Annual Summary

| Year Approved | Number of Approvals* | Number Completed | Per Cent Completed | Consumption to be Phased Out* | Consumption Phased Out* | Per Cent of Consumption Phased Out | Production to be Phased Out* | Production Phased Out* | Per Cent of Production Phased Out | Approved Funding plus Adjustment (US\$) | Funds Disbursed (US\$) | Per Cent of Funds Disbursed | Balance (US\$) | Estimated Disbursement in Current Year (US\$) | Support Costs Approved (US\$) | Support Cost Adjustments (US\$) |
|---------------|----------------------|------------------|--------------------|-------------------------------|-------------------------|------------------------------------|------------------------------|------------------------|-----------------------------------|-----------------------------------------|------------------------|-----------------------------|----------------|-----------------------------------------------|-------------------------------|---------------------------------|
| 1991          | 42                   | 42               | 100%               | 537                           | 600                     | 112%                               | 0                            | 0                      | 0%                                | 5,429,404                               | 5,429,404              | 100%                        | 0              | 0                                             | 820,000                       | -534,564                        |
| 1992          | 76                   | 76               | 100%               | 18,442                        | 18,276                  | 99%                                | 0                            | 0                      | 0%                                | 28,047,705                              | 28,047,705             | 100%                        | 0              | 0                                             | 1,347,550                     | -396,573                        |
| 1993          | 79                   | 79               | 100%               | 2,470                         | 3,054                   | 124%                               | 0                            | 0                      | 0%                                | 42,538,405                              | 42,538,405             | 100%                        | 0              | 0                                             | 1,179,000                     | -276,805                        |
| 1994          | 91                   | 91               | 100%               | 8,894                         | 9,178                   | 103%                               | 1,200                        | 1,200                  | 100%                              | 41,081,267                              | 41,081,267             | 100%                        | 0              | 0                                             | 1,418,963                     | 113,858                         |
| 1995          | 112                  | 112              | 100%               | 3,648                         | 3,565                   | 98%                                | 0                            | 0                      | 0%                                | 47,224,186                              | 47,224,186             | 100%                        | 0              | 0                                             | 5,478,735                     | -764,882                        |
| 1996          | 55                   | 55               | 100%               | 3,610                         | 3,312                   | 92%                                | 0                            | 0                      | 0%                                | 29,319,479                              | 29,319,479             | 100%                        | 0              | 0                                             | 4,465,748                     | -621,458                        |
| 1997          | 95                   | 95               | 100%               | 7,343                         | 17,257                  | 235%                               | 0                            | 11,739                 | 0%                                | 56,173,102                              | 56,173,103             | 100%                        | -1             | 0                                             | 8,100,603                     | -1,156,010                      |
| 1998          | 59                   | 59               | 100%               | 8,837                         | 8,783                   | 99%                                | 5,970                        | 5,826                  | 98%                               | 35,959,418                              | 35,959,417             | 100%                        | 1              | 0                                             | 4,804,456                     | -501,628                        |
| 1999          | 73                   | 73               | 100%               | 9,858                         | 8,128                   | 82%                                | 5,970                        | 5,970                  | 100%                              | 64,173,138                              | 64,173,138             | 100%                        | 0              | 0                                             | 6,207,035                     | 325,317                         |
| 2000          | 67                   | 67               | 100%               | 2,978                         | 3,260                   | 109%                               | 8,802                        | 8,793                  | 100%                              | 36,982,134                              | 36,982,133             | 100%                        | 1              | 0                                             | 3,744,867                     | -182,406                        |
| 2001          | 29                   | 29               | 100%               | 6,067                         | 6,067                   | 100%                               | 8,393                        | 8,384                  | 100%                              | 55,212,853                              | 55,212,854             | 100%                        | -1             | 0                                             | 4,482,836                     | 564,673                         |
| 2002          | 32                   | 32               | 100%               | 6,529                         | 6,699                   | 103%                               | 7,443                        | 7,443                  | 100%                              | 64,357,778                              | 64,357,778             | 100%                        | 0              | 0                                             | 7,174,302                     | -69,512                         |
| 2003          | 24                   | 24               | 100%               | 3,966                         | 3,978                   | 100%                               | 7,421                        | 7,421                  | 100%                              | 72,734,119                              | 72,734,119             | 100%                        | 0              | 0                                             | 7,029,910                     | 252,991                         |
| 2004          | 29                   | 29               | 100%               | 4,451                         | 4,468                   | 100%                               | 16,065                       | 16,065                 | 100%                              | 77,111,770                              | 77,111,770             | 100%                        | 0              | 0                                             | 7,369,146                     | 84,125                          |
| 2005          | 28                   | 28               | 100%               | 19,359                        | 23,049                  | 119%                               | 46,273                       | 46,342                 | 100%                              | 68,592,865                              | 68,592,865             | 100%                        | 0              | 0                                             | 7,381,049                     | -597,245                        |
| 2006          | 22                   | 22               | 100%               | 1,260                         | 1,260                   | 100%                               | 18,444                       | 18,444                 | 100%                              | 64,473,260                              | 64,473,260             | 100%                        | 0              | 0                                             | 6,490,404                     | -139,971                        |
| 2007          | 25                   | 25               | 100%               | 2,989                         | 2,989                   | 100%                               | 17,115                       | 17,115                 | 100%                              | 66,005,270                              | 66,005,270             | 100%                        | 0              | 0                                             | 6,860,290                     | -442,016                        |
| 2008          | 28                   | 28               | 100%               | 5,952                         | 5,952                   | 100%                               | 20,593                       | 20,593                 | 100%                              | 39,934,666                              | 39,934,666             | 100%                        | 0              | 0                                             | 4,834,395                     | -278,146                        |
| 2009          | 22                   | 22               | 100%               | 14,036                        | 14,036                  | 100%                               | 7,503                        | 7,503                  | 100%                              | 25,529,554                              | 25,529,554             | 100%                        | 0              | 0                                             | 3,564,606                     | -520,075                        |
| 2010          | 16                   | 16               | 100%               | 502                           | 674                     | 134%                               | 0                            | 0                      | 0%                                | 1,148,623                               | 1,148,623              | 100%                        | 0              | 0                                             | 1,868,548                     | -458,586                        |
| 2011          | 10                   | 10               | 100%               | 81                            | 812                     | 998%                               | 0                            | 0                      | 0%                                | 44,201,956                              | 44,335,997             | 100%                        | -134,041       | 0                                             | 5,099,184                     | -61,841                         |
| 2012          | 10                   | 10               | 100%               | 168                           | 168                     | 100%                               | 0                            | 0                      | 0%                                | 11,698,145                              | 11,698,145             | 100%                        | 0              | 0                                             | 2,765,746                     | -629,040                        |
| 2013          | 7                    | 7                | 100%               | 377                           | 377                     | 100%                               | 0                            | 1,058                  | 0%                                | 43,736,999                              | 43,602,958             | 100%                        | 134,041        | 0                                             | 3,203,077                     | 936,084                         |
| 2014          | 13                   | 13               | 100%               | 127                           | 127                     | 100%                               | 0                            | 0                      | 0%                                | 28,336,509                              | 28,336,509             | 100%                        | 0              | 0                                             | 3,387,443                     | -412,129                        |
| 2015          | 13                   | 13               | 100%               | 548                           | 548                     | 100%                               | 0                            | 2,912                  | 0%                                | 62,990,648                              | 62,990,648             | 100%                        | 0              | 0                                             | 5,913,456                     | -455,275                        |
| 2016          | 18                   | 17               | 94%                | 255                           | 735                     | 288%                               | 0                            | 0                      | 0%                                | 12,601,632                              | 12,601,632             | 100%                        | 0              | 0                                             | 2,682,573                     | -133,222                        |
| 2017          | 3                    | 3                | 100%               | 71                            | 71                      | 100%                               | 0                            | 0                      | 0%                                | 1,651,291                               | 1,651,291              | 100%                        | 0              | 0                                             | 2,055,676                     | -212,026                        |
| 2018          | 7                    | 3                | 43%                | 33                            | 0                       | 0%                                 | 0                            | 1,188                  | 0%                                | 26,408,870                              | 25,786,875             | 98%                         | 621,995        | 578,661                                       | 3,261,620                     | -43,894                         |
| 2019          | 3                    | 2                | 67%                | 19                            | 0                       | 0%                                 | 0                            | 0                      | 0%                                | 2,579,179                               | 2,141,404              | 83%                         | 437,775        | 437,775                                       | 1,958,493                     | -486,154                        |
| 2020          | 2                    | 2                | 100%               | 809                           | 809                     | 100%                               | 0                            | 0                      | 0%                                | 2,067,012                               | 2,067,012              | 100%                        | 0              | 0                                             | 1,879,691                     | -260,155                        |
| 2021          | 7                    | 5                | 71%                | 1,930                         | 0                       | 0%                                 | 0                            | 0                      | 0%                                | 9,622,863                               | 9,348,173              | 97%                         | 274,690        | 175,000                                       | 2,413,150                     | -284,674                        |
| 2022          | 7                    | 5                | 71%                | 98                            | 0                       | 0%                                 | 5,947                        | 0                      | 0%                                | 23,443,422                              | 308,710                | 1%                          | 23,134,712     | 11,359,834                                    | 3,078,735                     | -10,500                         |
| 2023          | 24                   | 1                | 4%                 | 817                           | 0                       | 0%                                 | 0                            | 0                      | 0%                                | 15,794,363                              | 184,945                | 1%                          | 15,609,418     | 5,436,111                                     | 3,063,551                     | -9,800                          |
| <b>Total</b>  | 1,128                | 1,095            | 97%                | 137,059                       | 148,230                 | 108%                               | 177,139                      | 187,996                | 106%                              | 1,207,161,885                           | 1,167,083,295          | 97%                         | 40,078,590     | 17,987,381                                    | 135,384,838                   | -7,661,540                      |

\*Excludes Closed and Transferred Projects

Includes Project Preparation

**B. Summary of Data by Project Type (CPG, DEM, INS, INV, PRP, TAS, TRA)**

6. Table I-2 summarizes the entire portfolio of World Bank project approvals, adjustments, and disbursements by type of project or activity. As can be seen from the table, the major proportion of the Bank's approved funding to date has gone for investment projects, US\$1,189,276,348. The amounts that have been allocated for demonstration projects and institutional strengthening are US\$11,439,764 and US\$10,258,378, respectively.

Table I-2: Summary of Data by Project Type

| Type                                 | Number of Approvals* | Number Completed | Per Cent Completed | Approved Funding (US\$) | Adjustment (US \$) | Funds Disbursed (US \$) | Per Cent of Funds Disbursed | Balance (US\$)    | Estimated Disbursement In Current Year (US \$) |
|--------------------------------------|----------------------|------------------|--------------------|-------------------------|--------------------|-------------------------|-----------------------------|-------------------|------------------------------------------------|
| Country Programme Preparation        | 29                   | 29               | 100%               | 2,383,906               | -756,174           | 1,627,732               | 100%                        | 0                 | 0                                              |
| Demonstration Projects               | 8                    | 8                | 100%               | 11,439,764              | -5,266,863         | 6,172,901               | 100%                        | 0                 | 0                                              |
| Institutional Strengthening Projects | 51                   | 49               | 96%                | 10,258,378              | -244,662           | 9,710,320               | 97%                         | 303,396           | 175,000                                        |
| Investment Projects                  | 654                  | 633              | 97%                | 1,189,276,348           | -41,970,240        | 1,106,559,426           | 96%                         | 40,746,682        | 17,159,191                                     |
| Project Preparation                  | 304                  | 297              | 98%                | 36,385,595              | -8,357,275         | 27,201,415              | 97%                         | 826,905           | 346,905                                        |
| Technical Assistance Projects        | 78                   | 75               | 96%                | 17,197,529              | -3,490,187         | 15,505,735              | 113%                        | -1,798,393        | 306,285                                        |
| Training Projects                    | 4                    | 4                | 100%               | 1,193,246               | -887,480           | 305,766                 | 100%                        | 0                 | 0                                              |
| <b>GRAND TOTAL</b>                   | <b>1,128</b>         | <b>1,095</b>     | <b>97%</b>         | <b>1,268,134,766</b>    | <b>-60,972,881</b> | <b>1,167,083,295</b>    | <b>97%</b>                  | <b>40,078,590</b> | <b>17,987,381</b>                              |

\*Excludes Closed and Transferred Projects.

### C. Multi-year Agreements

7. A total of 45 multi-year projects have been approved for the World Bank as a Multilateral Fund Implementing Agency (IA) as of the end of 2023 including three (the China Stage II HCFC PU Foam Sector Plan, the Viet Nam Stage III HCFC Production Phaseout Management Plan, and the Viet Nam Stage III HCFC Servicing Sector Plan) whose agreement was approved at the 93<sup>rd</sup> Meeting of the Executive Committee, and the Malaysia and Vietnam Kigali HFC implementation plan also approved at the 93<sup>rd</sup> meeting. Three of the 47 multi-year projects were cancelled before implementation start in 2006, 2017 and 2019 respectively, and another five were completed with each having remaining balances that were subsequently transferred to other IAs (for the National CFC Phase-out Plans (NCPs) of Ecuador, the Philippines and Tunisia, and the CTC phase-out and accelerated CFC production sector plans in India).

8. In addition to its role in leading implementation for 36 of the 45 multi-year projects (including national and sector plans), the World Bank was, and continues to be a Cooperating Agency in China for the Stage II HCFC Phase-out Management Plan (HPMP) with UNDP as the Lead Agency. The World Bank was also a Cooperating Agency for the Indonesia Stage II HPMP, which completed activities in December 2023, with UNDP as the Lead Agency. The total value of Stage I HPMPs and sector plans in the Bank's portfolio was more than US\$206 million, excluding returns and transfers. New, Stage I Kigali Implementation Plans (KIPs) approved in December 2023 increase the total value of multiyear projects by another US\$12.9 million. By the end of 2022, all Stage I HPMPs were physically and financially completed.

9. Although fully funded, some projects continued to be active in terms of reporting requirements. Decision 56/13 requires that sector plans in the foam, halon and CFC production sectors in China be tracked until the full utilization of the remaining balances. In accordance with Decision 56/13, the World Bank continued to cooperate with China on monitoring the ongoing implementation of sector plan activities through 2019 despite that the grant agreement (ODS IV) under which these sector plans fall closed on June 30, 2013. In 2020, China submitted through the Bank a financial audit report confirming that all sector plans were physically and financially completed. Associated savings of \$8.7 million for the last remaining sector plan (halon) that completed end-2019 was returned by China according to Decision 87/24 in March 2022 through the World Bank.

10. The Bank and its partner countries are nearly completed with the second phase of HPMP implementation with ongoing implementation of only two Stage II HPMPs in Jordan and Thailand, one Stage II foam sector plan in China and the China Stage II HCFC Production Phase-out Management Plan (HPPMP) approved at the 86<sup>th</sup> Executive Committee meeting. Three multi-year projects target HCFC-141b consumption and/or use in imported pre-blended polyol (China, Thailand and Viet Nam HPMPs). The Thailand HPMP is addressing remaining HCFC-141b consumption in spray foam as well as tackling the servicing sector.

11. There are four ongoing multi-year activities in the World Bank's active HCFC phase-out portfolio worth a total US\$101.2 million as of the end of the 93<sup>rd</sup> Meeting of the Executive Committee. In addition, three newly approved MYAs for Malaysia and Viet Nam will start implementation in 2024 or beyond once Grant Agreements are in place. At the 84<sup>th</sup> Meeting of the Executive Committee, Decision 84/69 introduced a significant cut to China's overall Stage II HPMP, reducing in value the US\$141 million polyurethane foam sector plan by more than half. At the 86<sup>th</sup> Meeting, the Committee agreed to the revised Stage II HPMP for China which resulted in a reduction by \$113 million for the PU foam sector. The revised sector plan figure now totals to \$28.3 million as per Decision 86/39. In 2021, the Committee agreed through a multi-year agreement to a reduced amount of funding for China's Stage II HPMP at a total \$67 million including \$23 million already released in 2018 as bridging funds.

12. In 2023, two tranche implementation progress reports were approved for the fourth tranche of the Stage II HCFC production phase-out management plan in China and the second tranche of the Stage II HCFC phase-out management plan in Thailand, cumulatively worth a total US\$ 7.1 million. In addition, the first tranche of the Stage III HCFC phase-out management plan in Viet Nam was approved totaling US\$3.2 million. Hence, the total funds released by the Executive Committee to date to maintain compliance with the 2020 35% reductions in HCFC consumption, or in several cases, go beyond Protocol-required reductions, amount to US\$10.34 million.

13. All World Bank partner countries currently implementing multi-year projects appear to have met their annual consumption and production targets for the 2023 calendar year based on verified and unverified data as of report writing. In addition, these countries have maintained the total phaseout from previous agreements, also according to preliminary information. Table I-3 presents a summary of multi-year agreements for projects under World Bank implementation. Additional country information is also found in Annex I of this report.

Table I-3. Multi-Year Projects

| Country         | Sector Plan/National ODS Phase-Out Plan                                                | Date Approved | Actual Date of Completion | Funds Committed by ExCom (US\$) | Funds Released including Present Year by ExCom (US\$) | Funds Disbursed (US\$) | Total ODP Consumption to be Phased-out for the Plan | ODP Consumption Allowed for the Reporting Year* | Actual ODP Consumption for Reporting Year* | Total ODP Production to be Phased-out for the Plan* | ODP Production Allowed for the Reporting Year* | Actual ODP Production for Reporting Year* |
|-----------------|----------------------------------------------------------------------------------------|---------------|---------------------------|---------------------------------|-------------------------------------------------------|------------------------|-----------------------------------------------------|-------------------------------------------------|--------------------------------------------|-----------------------------------------------------|------------------------------------------------|-------------------------------------------|
| Antigua Barbuda | CFC phase-out management plan                                                          | Dec-04        | Dec-11                    | 97,300                          | 97,300                                                | 62,987                 | 1.80                                                | -                                               | -                                          | -                                                   | -                                              | -                                         |
| Argentina       | CFC production closure plan                                                            | Nov-02        | Dec-09                    | 10,600,000                      | 10,600,000                                            | 10,600,000             | -                                                   | -                                               | -                                          | 3,020                                               | -                                              | -                                         |
| Argentina       | National CFC phase-out plan                                                            | Nov-05        | Dec-13                    | 500,000                         | 500,000                                               | 236,630                | 1.50                                                | -                                               | -                                          | -                                                   | -                                              | -                                         |
| Argentina       | HCFC phase-out management plan (stage I, first tranche)                                | Apr-12        | Jun-18                    | 914,612                         | 914,612                                               | 914,612                | 18.46                                               | -                                               | -                                          | -                                                   | -                                              | -                                         |
| Bahamas         | Terminal CFC Phaseout Plan for The Bahamas                                             | Dec-01        | Jan-09                    | 560,000                         | 560,000                                               | 530,946                | 66                                                  | -                                               | -                                          | -                                                   | -                                              | -                                         |
| Chile           | Phase-out of all the remaining uses of methyl bromide in soil application pest control | Apr-05        |                           | 2,547,156                       | 691,703                                               | -                      | 136.3                                               | -                                               | -                                          | -                                                   | -                                              | -                                         |
| China           | Halon Sector                                                                           | Nov-97        | Dec-11                    | 62,000,000                      | 62,000,000                                            | 62,000,000             | 24,480                                              | -                                               | -                                          | 30,060                                              | -                                              | -                                         |
| China           | CFC Production Sector                                                                  | Mar-99        | Dec-10                    | 150,000,000                     | 150,000,000                                           | 150,000,000            | -                                                   | -                                               | -                                          | 44,931                                              | -                                              | -                                         |
| China           | Foam Sector                                                                            | Dec-01        | Dec-10                    | 53,846,000                      | 53,846,000                                            | 53,846,000             | 14,143                                              | -                                               | -                                          | -                                                   | -                                              | -                                         |
| China           | TCA Sector                                                                             | Jul-04        | Nov-10                    | 2,100,000                       | 2,100,000                                             | 2,100,000              | -                                                   | -                                               | -                                          | 113                                                 | -                                              | -                                         |
| China           | CTC/PA Sector Phase I                                                                  | Nov-02        | Dec-11                    | 65,000,000                      | 65,000,000                                            | 65,000,000             | 11,160                                              | -                                               | -                                          | 52,162                                              | -                                              | -                                         |
| China           | CTC/PA Sector Phase II                                                                 | Nov-05        | Jul-10                    | 46,500,000                      | 46,500,000                                            | 46,500,000             | 6,945                                               | -                                               | -                                          | -                                                   | -                                              | -                                         |
| China           | HCFC phase-out management plan (PU rigid foam sector plan) (Stage I)                   | Jul-11        | Jun-19                    | 73,000,000                      | 73,000,000                                            | 73,000,000             | 1,615                                               | -                                               | -                                          | -                                                   | -                                              | -                                         |

| Country   | Sector Plan/National ODS Phase-Out Plan                                                                                                           | Date Approved              | Actual Date of Completion | Funds Committed by ExCom (US\$) | Funds Released including Present Year by ExCom (US\$) | Funds Disbursed (US\$) | Total ODP Consumption to be Phased-out for the Plan | ODP Consumption Allowed for the Reporting Year* | Actual ODP Consumption for Reporting Year* | Total ODP Production to be Phased-out for the Plan* | ODP Production Allowed for the Reporting Year* | Actual ODP Production for Reporting Year* |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|---------------------------------|-------------------------------------------------------|------------------------|-----------------------------------------------------|-------------------------------------------------|--------------------------------------------|-----------------------------------------------------|------------------------------------------------|-------------------------------------------|
| China     | HCFC phase-out management plan (PU rigid foam sector plan) (stage II)                                                                             | Dec-16<br>Dec-20 (revised) |                           | 28,312,039                      | 9,112,039                                             | 9,112,039              | 4,449.6                                             | 2,965.7                                         |                                            | -                                                   | -                                              | -                                         |
| China     | HCFC production phase-out mgmt plan (stage I)                                                                                                     | Apr-13                     | Dec-18                    | 95,000,000                      | 95,000,000                                            | 91,256,301             | -                                                   | -                                               | -                                          | 3,970                                               | 26,210                                         |                                           |
| China     | HCFC production phase-out management plan (stage II,)                                                                                             | Dec-20                     | -                         | 67,000,000                      | 45,000,000                                            | 23,000,000             |                                                     |                                                 |                                            | 14,450                                              | 18,929                                         |                                           |
| Ecuador   | National CFC phase-out plan                                                                                                                       | Dec-03                     | Sep-09                    | 1,194,471                       | 1,194,471                                             | 1,194,471              | 246.00                                              | -                                               | -                                          | -                                                   | -                                              | -                                         |
| India     | CFC production sector gradual phase-out project                                                                                                   | Nov-99                     | Nov-11                    | 82,000,000                      | 82,000,000                                            | 82,000,000             | -                                                   | -                                               | -                                          | 22,588                                              | -                                              | -                                         |
| India     | Accelerated CFC Production Phaseout                                                                                                               | 4/1/2008 (in principle)    | Mar-14                    | 3,169,900                       | 3,169,900                                             | 3,169,900              | -                                                   | -                                               | -                                          | 690                                                 | -                                              | -                                         |
| India     | CTC phase-out plan for the consumption and production sectors                                                                                     | Jul-03                     | Mar-14                    | 38,100,954                      | 38,100,954                                            | 37,629,080             | 11,505.00                                           | -                                               | -                                          | 11,553                                              | -                                              | -                                         |
| Indonesia | Phase-out of residual CFCs in the foam sector                                                                                                     | Apr-04                     | Jun-10                    | 2,957,564                       | 2,957,564                                             | 2,957,564              | 352.00                                              | -                                               | -                                          | -                                                   | -                                              | -                                         |
| Indonesia | Refrigeration sector phase-out plan: MAC servicing sector                                                                                         | Nov-02                     | Mar-10                    | 4,317,000                       | 4,317,000                                             | 4,317,000              | 915.00                                              | -                                               | -                                          | -                                                   | -                                              | -                                         |
| Indonesia | National strategy for phasing out use of CFC in aerosol sector: Policies and actions, technical assistance, and enterprise investment initiatives | Dec-04                     | Jun-10                    | 371,910                         | 371,910                                               | 371,910                | 70.00                                               | -                                               | -                                          | -                                                   | -                                              | -                                         |
| Indonesia | HCFC Phase Out Plan (Stage I): Foam Sector Plan                                                                                                   | Jul-11                     | Dec-19                    | 2,714,187                       | 2,714,187                                             | 2,134,725              | 34.10                                               | n/a                                             | n/a                                        | -                                                   | -                                              | -                                         |
| Indonesia | HCFC Phase Out Plan (Stage II): Foam Sector Plan                                                                                                  | May-16                     |                           | 4,255,163                       | 4,255,163                                             | 3,260,154              | 42.70                                               | n/a                                             | n/a                                        | -                                                   | -                                              | -                                         |

| Country     | Sector Plan/National ODS Phase-Out Plan                     | Date Approved | Actual Date of Completion | Funds Committed by ExCom (US\$) | Funds Released including Present Year by ExCom (US\$) | Funds Disbursed (US\$) | Total ODP/tCO <sub>2</sub> eq. Consumption to be Phased-out for the Plan | ODP/tCO <sub>2</sub> eq. Consumption Allowed for the Reporting Year* | Actual ODP/tCO <sub>2</sub> eq. Consumption for Reporting Year* | Total ODP Production to be Phased-out for the Plan* | ODP Production Allowed for the Reporting Year* | Actual ODP Production for Reporting Year* |
|-------------|-------------------------------------------------------------|---------------|---------------------------|---------------------------------|-------------------------------------------------------|------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------|-------------------------------------------|
| Jordan      | HCFC Phase Out Plan (Stage I): Air-conditioning Sector Plan | Nov-11        | Dec-19                    | 1,070,100                       | 1,070,100                                             | 959,300                | 16.78                                                                    | n/a                                                                  | n/a                                                             | -                                                   | -                                              | -                                         |
| Jordan      | HCFC Phase Out Plan (Stage II)                              | Dec-16        |                           | 2,075,236                       | 2,075,236                                             | 730,145                | 29.2                                                                     | 41.50                                                                | -                                                               | -                                                   | -                                              | -                                         |
| Mexico      | National CFC phase-out plan: Chiller Subsector              | Apr-05        | Feb-06                    | 500,000                         | 500,000                                               | 500,000                | -                                                                        | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Malaysia    | National CFC phaseout plan                                  | Dec-01        | Dec-10                    | 11,517,005                      | 11,517,005                                            | 11,441,013             | 1,910.51                                                                 | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Malaysia    | Kigali HFC Implementation Plan (Stage I)                    | Dec-23        | Dec-26                    | 9,275,115                       | 3,042,940                                             | -                      | 2,670,372 tCO <sub>2</sub> eq                                            | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Philippines | National CFC phase out plan                                 | Nov-02        | Jun-11                    | 8,381,671                       | 8,381,671                                             | 8,381,671              | 2,017.60                                                                 | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Philippines | HCFC Phase Out Plan (Stage II)                              | Nov-17        | May-19                    | 2,750,057                       | 1,010,023                                             | -                      | 24.59                                                                    | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Thailand    | National CFC phaseout plan                                  | Dec-01        | Dec-13                    | 14,728,626                      | 14,728,626                                            | 12,638,243             | 3,107.52                                                                 | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Thailand    | National methyl bromide phase-out plan                      | Dec-04        | Dec-13                    | 2,901,600                       | 2,901,600                                             | 1,668,733              | 241.80                                                                   | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Thailand    | HCFC phase-out management plan (stage I, first tranche)     | Dec-12        | Dec-18                    | 22,749,072                      | 17,805,665                                            | 16,623,996             | 219.54                                                                   | 788.46                                                               | -                                                               | -                                                   | -                                              | -                                         |
| Thailand    | HCFC phase-out management plan (stage II, first tranche)    | Dec-18        |                           | 3,791,077                       | 3,616,532                                             | 1,068,284              | 20.4                                                                     | 354.74                                                               | 292.73                                                          |                                                     |                                                |                                           |
| Tunisia     | National ODS phase-out plan                                 | Jul-06        | Jun-12                    | 429,877                         | 429,877                                               | 429,877                | 342.00                                                                   | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Turkey      | CFC Phase-out plan for Turkey                               | Dec-01        | Apr-08                    | 9,000,000                       | 9,000,000                                             | 8,565,903              | 977.00                                                                   | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |

| Country   | Sector Plan/National ODS Phase-Out Plan                    | Date Approved | Actual Date of Completion | Funds Committed by ExCom (US\$) | Funds Released including Present Year by ExCom (US\$) | Funds Disbursed (US\$) | Total ODP /tCO <sub>2</sub> eq. Consumption to be Phased-out for the Plan | ODP/tCO <sub>2</sub> eq. Consumption Allowed for the Reporting Year* | Actual ODP/tCO <sub>2</sub> eq. Consumption for Reporting Year* | Total ODP Production to be Phased-out for the Plan* | ODP Production Allowed for the Reporting Year* | Actual ODP Production for Reporting Year* |
|-----------|------------------------------------------------------------|---------------|---------------------------|---------------------------------|-------------------------------------------------------|------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------|-------------------------------------------|
| Venezuela | Phased reduction and closure of the entire CFC production  | Dec-04        | Nov-09                    | 16,500,000                      | 16,500,000                                            | 16,500,000             | -                                                                         | -                                                                    | -                                                               | 4,400                                               | -                                              | -                                         |
| Viet Nam  | National CFC and halon phase-out plan                      | Apr-05        | Dec-10                    | 1,260,000                       | 1,260,000                                             | 1,259,448              | 258.69                                                                    | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Viet Nam  | National phase-out plan for methyl bromide                 | Nov-06        | Dec-14                    | 1,098,284                       | 1,098,284                                             | 1,098,284              | 85.20                                                                     | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Viet Nam  | HCFC phaseout management plan (stage I) (foam sector plan) | Apr-11        | Jun-17                    | 9,125,020                       | 9,125,020                                             | 8,205,602              | 140.10                                                                    | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |
| Viet Nam  | HCFC phase-out management plan (stage II)                  | May-16        | Dec-23                    | 14,411,204                      | 6,974,670                                             | 5,785,005              | 55.3                                                                      | 143.78                                                               | 116.95                                                          | -                                                   | -                                              | -                                         |
| Viet Nam  | HCFC phase-out management plan (Stage III)                 | Dec-23        | Dec-26                    | 9,220,364                       | 3,227,127                                             | 0                      | 143.78                                                                    | 143.78                                                               | 116.95                                                          |                                                     |                                                |                                           |
| Viet Nam  | Kigali HFC Implementation Plan (Stage I)                   | Dec-23        | Dec-26                    | 3,593,183                       | 1,557,820                                             | 0                      | 1,339,136 tCO <sub>2</sub> eq                                             | -                                                                    | -                                                               | -                                                   | -                                              | -                                         |

\*2023

**D. Sector Phaseout by Country**

14. The Bank implemented several projects that resulted in sector-wide or nation-wide ODS phaseout but which were not projects with multi-year agreements. With one-time funding by the Executive Committee, these projects aimed, nonetheless, to entirely phase out the consumption of ODS through investment activities and policy measures in a sector or country-wide.

15. Three of these projects, the National Transition Strategy to CFC-free Metered Dose Inhalers (MDIs) in Indonesia and the National Methyl Bromide Phaseout Strategy in the Philippines; as well as the Argentina metered dose inhalers (MDIs) project were successfully completed in 2010 and 2014 respectively.

16. The World Bank was also an implementing agency for one other aerosol project, the China Pharmaceutical Aerosol CFC Phaseout project. Completion of the China project had been delayed although all 485 ODP tonnes CFC consumption was eliminated since 2013. The project continued in order to complete training on new substitute specifications, technical assistance activities, market promotion and administration of enterprise conversions and to facilitate approval for the marketing of alternative-based products. In May 2015, the project was declared completed.

## II. PROJECT COMPLETIONS SINCE LAST REPORT

17. There were fourteen projects completed during this reporting period (January 1, 2023 to December 31, 2023), in addition to the 2023 core unit budget, which is highlighted in Table II-1 below.

### A. ODP Phased Out Since Last Report

18. There were seven investment project completions in 2023, and resulting in the phase-out of a total 813.9 ODP MT. The HCFC phase-out management plan (stage II, second tranche) (polyurethane rigid foam sector plan) in China phased out 808.8 ODP MT and HCFC phase-out management plan (stage II, first tranche) (polyurethane rigid foam sector) in Viet Nam phased out 5.4 ODP MT.

### B. Non-Investment Project Completions Since Last Report

19. Country Programs: There were no new completions in 2023 for country programs.

20. Technical Assistance: There were no new completions in 2023 for stand-alone technical assistance (TA) projects.

21. Training: The World Bank held its 15<sup>th</sup> Annual East Asia and Pacific (EAP) and Montreal Protocol (MP) Joint Regional Workshop on MP Implementation on February 22-24, 2023 in Da Nang, Viet Nam.

22. The World Bank did not hold its annual Climate Ozone & Operational Linkages (CO<sub>3</sub>OL) workshop in 2023.

Table II-1: Project Completions During Reporting Period

| Project Title                                                                                                                                      | Country   | Region | Consumption ODP Phased Out | Date Approved | First Disbursement Date | Date Completed (Actual) | Date of Financial Completion | Approved Funding (US\$) | Adjustment (US\$) | Funds Disbursed (US\$) | Per Cent of Funds Disbursed | Balance (US\$) | Funds Committed (US\$) |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|----------------------------|---------------|-------------------------|-------------------------|------------------------------|-------------------------|-------------------|------------------------|-----------------------------|----------------|------------------------|
| HCFC phase-out management plan (stage II, second tranche) (polyurethane rigid foam sector plan)                                                    | China     | ASP    | 808.8                      | Jun-20        | Sep-20                  | Dec-23                  |                              | 2,067,012               | 0                 | 2,067,012              | 100%                        | 0              | 0                      |
| HCFC phase-out management plan (stage II, second tranche) (foam sector)                                                                            | Indonesia | ASP    |                            | Jun-18        | Jan-19                  | Sep-23                  | Oct-23                       | 1,276,549               | 0                 | 1,276,549              | 100%                        | 0              | 0                      |
| HCFC phase-out management plan (stage II, third tranche) (foam sector)                                                                             | Indonesia | ASP    |                            | Nov-21        | Oct-22                  | Sep-23                  | Dec-23                       | 992,871                 | 0                 | 978,243                | 99%                         | 14,628         | 0                      |
| HCFC phase-out management plan (stage II, first tranche) (polyurethane rigid foam sector)                                                          | Viet Nam  | ASP    | 5.4                        | May-16        | Aug-19                  | Dec-23                  |                              | 396,095                 | -93,358           | 302,737                | 100%                        | 0              | 0                      |
| HCFC phase-out management plan (stage II, second tranche)                                                                                          | Viet Nam  | ASP    |                            | Dec-19        | Dec-20                  | Dec-23                  |                              | 2,179,193               | -613,568          | 1,565,625              | 100%                        | 0              | 0                      |
| HCFC phase-out management plan (stage II, third tranche) (refrigeration servicing, technical assistance and project implementation and monitoring) | Viet Nam  | ASP    |                            | Jul-21        | Mar-22                  | Dec-23                  |                              | 3,781,257               | 0                 | 3,781,257              | 100%                        | 0              | 0                      |
| HCFC phase-out management plan (stage II, fourth tranche)                                                                                          | Viet Nam  | ASP    |                            | Dec-22        | Mar-23                  | Dec-23                  |                              | 711,483                 | 0                 | 133,085                | 19%                         | 578,398        | 578,398                |
| <b>Total</b>                                                                                                                                       |           |        | 813.9                      |               |                         |                         |                              | 11,404,460              | -706,926          | 10,104,508             | 88.6%                       | 593,026        | 578,398                |

### III. GLOBAL AND REGIONAL PROJECT HIGHLIGHTS

#### A. Global Projects

23. The World Bank sole active global project, the Global Chiller Replacement Project, was declared physically and financially completed in 2017. The project's original objective was to replace CFC chillers in China, India, Indonesia, Jordan, Malaysia, the Philippines, and Tunisia. Five countries had embarked on a national chiller replacement project as of the end of 2012 – demonstrating a number of implementation modalities that meet specific needs of the countries.

24. The India Chiller Energy Efficiency Project was declared completed in 2015 and a savings of US\$ 481,628 from the MLF component was returned in 2016 to the 76<sup>th</sup> Executive Committee Meeting. The Jordan CFC Chiller Replacement Project was physically completed in 2012. The project provided a 30% subsidy to building owners based on a nominal value and all 20 CFC-based chillers targeted were replaced. A total of 4 MT of mixed CFCs were safely recovered after dismantling the chillers that fell directly under the project.

25. The Philippines Energy Efficiency Project received US\$ 1million in MLF funding and US\$ 2.6 million in GEF funding. A total of 38 subgrant agreements (SGAs) were signed that covered the replacement of 72 chillers. The original target of 53 chiller replacements was surpassed by 26%. Cumulative disbursement as of the end of 2016 for the MLF component was US\$ 0.78 million and US\$ 1.78 million for the GEF component. The project was closed on 31 December 2016 and financial completion took place by 30 April 2017. US\$ 222,593 in savings were returned at the 80<sup>th</sup> Executive Committee Meeting.

26. The Indonesia chiller energy efficiency project, which aimed to bring together US \$3.66 million in GEF funding with US\$1 million from the Global Chiller Replacement Project was canceled in 2013. The allocated MLF funds, along with savings from the Jordan component were returned at the 71<sup>st</sup> Meeting of the Executive Committee in December 2013.

27. The fifth country included in the Global Chiller Replacement Project was Argentina. In 2016, the project witnessed its first chiller replacements at two separate sites. However, in 2017, the Government of Argentina decided to transfer its ongoing component of the Global Chiller Replacement Project to another Implementing Agency. The transfer of the balance of funds, US\$808,438 was made at the 80<sup>th</sup> Meeting of the Executive Committee.

28. At its 77<sup>th</sup> Meeting, the Executive Committee approved terms of reference for evaluation of chiller replacement projects by the Fund Secretariat's Senior Monitoring and Evaluation Officer. Three beneficiary countries of the Global Chiller Replacement Project, Argentina, Jordan, and the Philippines, were visited and evaluated. The findings of the evaluation were presented to the Executive Committee in November 2017.

#### B. Regional Projects

29. The World Bank has no outstanding regional projects.

## IV. PERFORMANCE INDICATORS

### A. Agency Performance Goals

30. Executive Committee Decision 41/93 requests Implementing Agencies (IAs) to employ nine weighted indicators to assess their annual performance. These indicators are classified as approval, implementation, and administrative indicators. The basis for setting and measuring these indicators are the annual progress reports and annual plans of multi-year projects as implied in the background document to the indicator system, UNEP/OzL.Pro/ExCom/41/80, as well as the IA business plans. In 2013, Decision 71/28 modified the performance indicators which have been used to measure 2020 progress.

31. “Approval” indicators compare projects that received Executive Committee approval against those planned to be delivered as per multi-year agreements (MYAs) and the 2023 Business Plan. For the first approval indicator, which per the Secretariat should include both new (not approved) and existing MYAs, four (4) annual programs were targeted for approval in the 2023 Business Plan. Actual number of tranches forwarded was five associated with existing MYAs (Thailand HCFC phase-out management plan Stage II second tranche was approved at the 92nd Meeting, and China HCFC phase-out management plan Stage II fourth tranche in PU foam sector plan, Malaysia Kigali HFC implementation plan Stage I first tranche, Viet Nam Kigali HFC implementation plan Stage I first tranche, and HCFC phase-out management plan Stage III first tranche). The second approval indicator, the planned number of new individual projects (stand-alone investment projects, institutional strengthening, technical assistance, and project preparation) for approval was set at four (4) per Decision 88/27. In 2023, one KIP preparation activity in Indonesia and four preparation activities in Viet Nam, approved at the 92nd meeting. At the 93rd meeting, one preparation for a pilot project on energy efficiency in the stand-alone commercial refrigeration sector in Malaysia; three preparation activities of KIPs, and a Stage III HPMP overarching plan plus commercial refrigeration sector preparation activity in Thailand; a preparation activity for a national inventory of banks of controlled substances and the development of a national plan for managing these substances, and preparation for a pilot project on energy efficiency in the air-conditioning sector in Viet Nam were also approved.

32. There are three “implementation” indicators. The first implementation indicator measures disbursement performance against that planned in the previous year’s progress report. Based on estimates provided in the approved 2021 Progress Report, the World Bank aspired to disburse US\$8.7 million in 2021. Actual disbursement in 2021 was US\$7.8 million, meaning that the target was met by 90%.

33. The second implementation indicator now includes ODS phased out in multi-year agreements, as well as in individual projects. The World Bank set the targeted ODP tonnes of phaseout in 2023 at 814.6 ODP which is the planned phase-out for tranches of approved *and not yet approved* MYAs.

**Commented [JK1]:** CY23-OG-PR>Data base sheet  
Filter: contribution year - 2023, status - ONG, Sum of Consumption  
to be Phased Out per Proposal

34. The Bank noted that the intent of Decision 71/28 on the current indicators is to solely count planned phase-out of future tranches of *already approved* MYAs as the approval and scope of approval of new MYAs is somewhat out of implementing agency control. Intent is clear from the indicator's title where phase-out should be from approved MYAs: "ODS phase-out for the tranche when the next tranche is approved vs. those planned per business plans." In addition, it should be from already approved tranches: "the tranche" in the indicator description, not the "next tranche."

35. The Secretariat's approach creates a target nearly impossible to reach. Preparation and approval always lead to phase-out estimates different than those in the business plans. In addition, the Secretariat has the Agencies prorate phase-out in tranches of proposed MYAs in the business plans, rather than assigning the phase-out according to the year the phase-out is expected to be achieved. Moreover, phase-out, regardless of the value assigned is only claimed when the tranche or activities are completed. The Bank notes that the indicators have been revised at the 93<sup>rd</sup> Meeting to address this issue in future progress reports (starting for the year 2025).

36. For 2023, the World Bank, was, however, able to meet the target set for this implementation indicator with 1,388,279 ODP tonnes approved through five tranches, when using the methodology of the Secretariat, i.e. using the business plan to set the ODP phaseout target and compare it to actual approvals.

37. For the third implementation indicator, "project completion vs that planned in the progress report for all activities (excluding project preparation), the target was set at 5 based on the 2022 Progress Report. In 2023, five activities reached completion, including the HCFC Phase-out Management Plan (HPMP) Stage II for the PU foam sector in China; the second and third tranches of HPMP Stage II for the foam sector in Indonesia; four tranches of HPMP Stage II (first, second, third, and fourth); the extension of the institutional strengthening project in Thailand; and the 2023 core unit budget.

38. There are three "administrative" indicators. The methodology for setting the target for the first, "Speed of Financial Completion," has been changed through Decision 71/28. Instead of targeting the number of months, "the extent to which projects are financially completed 12 months after project completion" is targeted. Ninety per cent was targeted in the Bank's 2022 Business Plan. In 2023, 8 project activities was financially completed within 12 months. The core unit budget for 2022 which closed in December 2022 was also financially complete within 12 months by December 2023. Thus, the target was achieved.

39. The Bank committed to submit 100 percent of PCRs for projects completed in the 2023 PCR reporting period. In the 2023 PCR reporting period (July 2022-June 2023), one MYA project Viet Nam Stage II HPMP completed and will be submitted in 2024. One project completion report for an old, previously completed MYA (Argentina HPPMP) was submitted in October 2023 as additional guidance was received by the Executive Committee that the implementing agencies submit outstanding PCRs for MYAs and individual projects.

**Commented [MEF2]:** This is a 2023 CY progress report.

40. The third and final administrative performance target of on-time submission of the 2023 Progress Report was met with submission in agreement with the MLF Secretariat on September 3<sup>rd</sup>, 2024. Table IV-1 summarizes the World Bank's performance relative to indicators per Decision 88/27 on the Bank's 2023 Business Plan.

Table IV-1: World Bank Performance Goals

| Category of Performance Indicator | Item                                                                                                  | Weighting | 2023 Target*     | 2023 Actual      |
|-----------------------------------|-------------------------------------------------------------------------------------------------------|-----------|------------------|------------------|
| Planning/Approval                 | Number of tranches approved vs. those planned                                                         | 10        | 4                | 2                |
| Planning/Approval                 | Number of projects/activities approved vs. those planned (including project preparation activities)   | 10        | 6                | 5                |
| Implementation                    | Funds disbursed (based on estimated disbursement in progress report)                                  | 15        | US \$18,128,725  | US \$8,441,201   |
| Implementation                    | ODS phased-out for the tranche when the next tranche is approved vs. those planned per business plans | 25        | 814.6 ODP tonnes | 813.9 ODP tonnes |
| Implementation                    | Project completion vs. that planned in progress reports for all activities                            | 20        | 5                | 5                |
| Administrative                    | Speed of financial completion vs. that required per progress report completion dates                  | 10        | 90%              | 100%             |
| Administrative                    | Timely submission of project completion reports vs. those agreed                                      | 5         | On time (4)      | On time          |
| Administrative                    | Timely submission of progress reports and responses unless otherwise agreed                           | 5         | On time          | On time          |

\* Set by the Fund Secretariat and including tranches of existing MYAs and of newly approved and planned MYAs

Table IV-2: World Bank Indicators of Implementation Progress

| Indicator      | Measure     | Unit            | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------|-------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Delivery Speed | First Disb. | Mos.            | 27   | 20   | 21   | 24   | 17   | 18   | 18   | 19   | 19   | 21   | 12   | 14   | 14   | 0    |
|                | Last Disb.  | Mos.            | 51   | 39   | 50   | 50   | 37   | 61   | 39   | 53   | 45   | 57   | 33   | 28   | 26   | 0    |
| Cost Effective | Average     | US\$ per Kg ODP | 1.82 | 2.13 | 2.26 | 3.01 | 3.34 | 3.61 | 5.46 | 3.17 | 0.64 | 2.57 | 2.45 | 0.86 | 5.26 | 0.77 |

| Indicator      | Measure     | Unit            | 2011  | 2012  | 2013  | 2014   | 2015  | 2016  | 2017  | 2018  | 2019  | 2020 | 2021 | 2022 | 2023  | Overall |
|----------------|-------------|-----------------|-------|-------|-------|--------|-------|-------|-------|-------|-------|------|------|------|-------|---------|
| Delivery Speed | First Disb. | Mos.            | 27    | 11    | 12    | 6      | 4     | 18    | 9     | 24    | 0     | 12   | 5    | 8    | 4     | 19      |
|                | Last Disb.  | Mos.            | 0     | 0     | 0     | 0      | 0     | 0     | 4     | 0     | 0     | 0    | 21   | 38   | 23    | 34      |
| Cost Effective | Average     | US\$ per Kg ODP | 67.85 | 64.60 | 53.74 | 214.00 | 19.84 | 48.54 | 48.41 | 20.57 | 52.04 | 2.56 | 4.55 | 3.85 | 18.30 | 21      |

41. There are seven (7) ongoing project preparation activities with US\$770,000 approved funding. A total of US\$8,000 was disbursed from these project to-date in 2023, with US\$282,000 projected to be disbursed in 2024. Hence the cost of project preparation in 2023 is US\$8,000. Actual average overall speed of first disbursement of investment and demonstration projects is 19 months (taking into account projects in the Bank's entire 30-year portfolio).

42. Fourteen activities were approved in 2023, worth US\$14.94 million (excluding support costs) consisting of the fourth tranche of a Stage II HCFC phase-out management plan in China for PU foam sector, the first tranche of a Stage I Kigali HFC Implementation Plan in Malaysia for the Mobile Air-conditioning, commercial refrigeration, servicing and technical assistance, and PMU sector, and the second tranche of a Stage II HCFC phase-out management plan in Thailand for refrigeration servicing, spray foam and PMU sector, the first tranche of a Stage I Kigali HFC Implementation Plan in Viet Nam for industrial refrigeration, rail mobile air-conditioning conversion, servicing, and PMU sector, and the first tranche of a Stage III HCFC phase-out management plan in Viet Nam for the PMU and servicing sector. The average cost-effectiveness value of the activities approved in 2023 is US\$18.3/Kg, noting that this is based on ODP tonnes (not metric tonnes) and not accurately capturing cost-effectiveness for HCFC projects (2012 and beyond), and that these projects may include HCFC elimination in imported pre-blended polyol (with no phase-out), technical assistance and project management funding. As far as distribution among countries is concerned, five countries received approvals in 2023.

43. The Bank had two completed non-investment projects in the reporting period.

**B. Cumulative Completed Investment Projects**

44. Since 1991, the World Bank's cumulative total of completed investment projects is at 633, resulting in the reduction in consumption of 145,449 ODP tonnes and in production of 186,808 ODP tonnes. Out of a total of US\$1,076,857,200 of approved Multilateral Fund financing for completed projects, 100 percent of funds has been disbursed. The average number of months from approval to first disbursement has been 24, the average number of months from approval to completion has been 40, at an average cost-effectiveness of US\$3.24/kg. These averages include projects both before and after initiation of the umbrella grant agreement approval process.

45. Six investment project activities were completed in 2023. Table IV-3 which follows provides a summary of completed investment projects at both a regional and sectoral level.

[illegible]

### C. Cumulative Completed Non-Investment Projects

46. Since 1991, the World Bank's cumulative total of completed non-investment projects has grown to 165. Out of a total of US\$ 30,310,666 of approved Multilateral Fund financing, 107 percent of funds has been disbursed. The average number of months from approval to first disbursement has been 22; the average number of months from approval to completion has been 35.

Table IV-4: Cumulative Completed Non-Investment Projects

| Item                                                                                            | Number of Projects | Approved Funds plus Adjustment (US \$) | Per Cent of Funds Disbursed | Average Number of Months from Approval to First Disbursement | Average Number of Months from Approval to Completion |
|-------------------------------------------------------------------------------------------------|--------------------|----------------------------------------|-----------------------------|--------------------------------------------------------------|------------------------------------------------------|
| <b>GRAND TOTAL</b>                                                                              | 165                | 30,310,666                             | 107%                        | 22                                                           | 35                                                   |
| <b>Region</b>                                                                                   |                    |                                        |                             |                                                              |                                                      |
| Africa                                                                                          | 17                 | 2,865,298                              | 100%                        | 24                                                           | 31                                                   |
| Asia & Pacific                                                                                  | 71                 | 18,436,243                             | 111%                        | 18                                                           | 39                                                   |
| Europe                                                                                          | 9                  | 1,632,528                              | 100%                        | 29                                                           | 43                                                   |
| Latin America and Caribbean                                                                     | 35                 | 4,477,970                              | 100%                        | 27                                                           | 44                                                   |
| Global                                                                                          | 33                 | 2,898,628                              | 100%                        | 22                                                           | 18                                                   |
| <b>Sector</b>                                                                                   |                    |                                        |                             |                                                              |                                                      |
| Aerosol                                                                                         | 5                  | 627,662                                | 100%                        | 17                                                           | 26                                                   |
| Destruction                                                                                     | 1                  | 250,000                                | 100%                        | 17                                                           | 22                                                   |
| Energy Efficiency                                                                               | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Fire fighting                                                                                   | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Foam                                                                                            | 5                  | 3,947,421                              | 100%                        | 20                                                           | 53                                                   |
| Fumigants                                                                                       | 5                  | 1,294,425                              | 100%                        | 35                                                           | 102                                                  |
| Halon                                                                                           | 5                  | 1,519,717                              | 100%                        | 50                                                           | 105                                                  |
| HFC phase-down plan                                                                             | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Multiple sectors                                                                                | 1                  | 53,792                                 | 100%                        | 56                                                           | 58                                                   |
| Other                                                                                           | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Phase-out plan                                                                                  | 6                  | 2,267,029                              | 193%                        | 27                                                           | 53                                                   |
| Process agent                                                                                   | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Production                                                                                      | 1                  | 40,000                                 | 100%                        | 4                                                            | 4                                                    |
| Refrigeration                                                                                   | 16                 | 7,583,216                              | 100%                        | 42                                                           | 62                                                   |
| Several                                                                                         | 120                | 12,727,404                             | 100%                        | 14                                                           | 25                                                   |
| Solvents                                                                                        | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Sterilant                                                                                       | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| <b>Implementation Characteristics</b>                                                           |                    |                                        |                             |                                                              |                                                      |
| Agency Implementation                                                                           | 70                 | 3,506,757                              | 100%                        | 10                                                           | 15                                                   |
| National Implementation                                                                         | 95                 | 26,803,910                             | 108%                        | 25                                                           | 50                                                   |
| <b>Disbursement Method</b>                                                                      |                    |                                        |                             |                                                              |                                                      |
| During Implementation                                                                           | 163                | 29,309,236                             | 107%                        | 22                                                           | 35                                                   |
| After Implementation                                                                            | 2                  | 1,001,430                              | 100%                        | 19                                                           | 39                                                   |
| Retroactive Funding                                                                             | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Country to Final Beneficiaries                                                                  | 0                  | 0                                      | 0%                          | n/a                                                          | n/a                                                  |
| Note:                                                                                           |                    |                                        |                             |                                                              |                                                      |
| (1) Per decision 22/11(a)(vi), project preparation is not included as a non-investment project. |                    |                                        |                             |                                                              |                                                      |
| (2) The sum of each section (Region, Sector, etc.) equals the Grand Total.                      |                    |                                        |                             |                                                              |                                                      |

**D. Cumulative Ongoing Investment Projects**

47. The World Bank's cumulative total of ongoing investment projects is 21 (including tranches of multi-year agreements). Out of a total of US\$ 66,702,342 of approved Multilateral Fund financing, 43 percent of funds has been disbursed. The average number of months from approval to first disbursement has been 18, the average number of months from approval to the current expected completion date is 50, with an average cost-effectiveness of US\$ 7.67/kg. The cost-effectiveness value is not representative as it includes approvals for tranches that have no phase-out assigned and calculates ODP, rather than MT of HCFCs. Table IV-5 below summarizes ongoing investment projects at regional and sectoral levels.

48. Excluded from the table are HFC-related activities. The Bank had one approved, stand-alone investment activity worth US\$ 183,514 to convert HFC to propane and isobutene as a refrigerant in manufacturing commercial refrigeration appliances. The project has been fully disbursed in 2022.

Table IV-5: Cumulative Ongoing Investment Projects

| Item                                                                                                                                          | Number of Projects | Approved Funds plus Adjustment (US\$) | Per Cent of Funds Disbursed | Number of Projects Disbursing | Per Cent of Projects Disbursing | Estimated Disbursement plus Funds Disbursed | Per Cent Funds Expected to be Disbursed by End of 2004 | Average Number of Months from Approval to First Disbursement | Average Number of Months from Approval to Planned Completion | Average Length of Delay in Project Planned Completion | Overall Cost-Effectiveness to the Fund (US\$/kg.)* |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------|
| GRAND TOTAL                                                                                                                                   | 21                 | 66,702,342                            | 43%                         | 7                             | 33%                             | 45,812,555                                  | 69%                                                    | 18                                                           | 50                                                           | 28                                                    | \$7.67                                             |
| Region                                                                                                                                        |                    |                                       |                             |                               |                                 |                                             |                                                        |                                                              |                                                              |                                                       |                                                    |
| Africa                                                                                                                                        | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | 0                                                            | n/a                                                          | n/a                                                   | n/a                                                |
| Asia & Pacific                                                                                                                                | 21                 | 66,702,342                            | 43%                         | 7                             | 33%                             | 45,812,555                                  | 69%                                                    | 18                                                           | 50                                                           | 28                                                    | \$7.67                                             |
| Europe                                                                                                                                        | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | 0                                                            | n/a                                                          | n/a                                                   | n/a                                                |
| Latin America and Caribbean                                                                                                                   | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | 0                                                            | n/a                                                          | n/a                                                   | n/a                                                |
| Global                                                                                                                                        | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | 0                                                            | n/a                                                          | n/a                                                   | n/a                                                |
| Sector                                                                                                                                        |                    |                                       |                             |                               |                                 |                                             |                                                        |                                                              |                                                              |                                                       |                                                    |
| Aerosol                                                                                                                                       | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Destruction                                                                                                                                   | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Energy Efficiency                                                                                                                             | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Fire fighting                                                                                                                                 | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Foam                                                                                                                                          | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Fumigants                                                                                                                                     | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Halon                                                                                                                                         | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| HFC phase-down plan                                                                                                                           | 8                  | 4,600,704                             | 0%                          | 0                             | 0%                              | 10,000                                      | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | \$6.13                                             |
| Multiple sectors                                                                                                                              | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Other                                                                                                                                         | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Phase-out plan                                                                                                                                | 11                 | 17,104,425                            | 33%                         | 6                             | 55%                             | 11,802,555                                  | 69%                                                    | 19                                                           | 45                                                           | 21                                                    | \$8.57                                             |
| Process agent                                                                                                                                 | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Production                                                                                                                                    | 2                  | 44,997,213                            | 51%                         | 1                             | 50%                             | 34,000,000                                  | 76%                                                    | 16                                                           | 90                                                           | 72                                                    | \$7.57                                             |
| Refrigeration                                                                                                                                 | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Solvents                                                                                                                                      | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Sterilant                                                                                                                                     | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Implementation Characteristics                                                                                                                |                    |                                       |                             |                               |                                 |                                             |                                                        |                                                              |                                                              |                                                       |                                                    |
| Agency Implementation                                                                                                                         | 7                  | 5,159,444                             | 3%                          | 1                             | 14%                             | 1,221,056                                   | 24%                                                    | 2                                                            | 24                                                           | 6                                                     | \$9.82                                             |
| National Implementation                                                                                                                       | 14                 | 61,542,898                            | 46%                         | 6                             | 43%                             | 44,591,499                                  | 72%                                                    | 21                                                           | 66                                                           | 41                                                    | \$7.53                                             |
| Disbursement Method                                                                                                                           |                    |                                       |                             |                               |                                 |                                             |                                                        |                                                              |                                                              |                                                       |                                                    |
| During Implementation                                                                                                                         | 13                 | 11,147,337                            | 15%                         | 5                             | 38%                             | 3,802,555                                   | 34%                                                    | 21                                                           | 45                                                           | 21                                                    | \$18.42                                            |
| After Implementation                                                                                                                          | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Retroactive Funding                                                                                                                           | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                           | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   | n/a                                                |
| Country to Final Beneficiaries                                                                                                                | 8                  | 55,555,005                            | 49%                         | 2                             | 25%                             | 42,010,000                                  | 76%                                                    | 11                                                           | 90                                                           | 72                                                    | \$6.87                                             |
| Note: The sum of each section (Region, Sector, etc.) equals the Grand Total.<br>*Based on the ODS to be phased out according to the proposal. |                    |                                       |                             |                               |                                 |                                             |                                                        |                                                              |                                                              |                                                       |                                                    |

**E. Cumulative Ongoing Non-Investment Projects**

49. The World Bank's cumulative total of ongoing non-investment projects is 5 as captured in the following Table IV-6. Out of a total of US\$ 1,496,791 of approved Multilateral Fund financing, 59 percent of funds has been disbursed. The average number of months from approval to first disbursement has been 18; the average number of months from the date of approval to the current expected completion date is 62.

Table IV-6: Cumulative Ongoing Non-Investment Projects

| Item                                  | Number of Projects | Approved Funds plus Adjustment (US\$) | Per Cent of Funds Disbursed | Number of Projects Disbursing | Per Cent of Projects Disbursing | Estimated Disbursements plus Funds Disbursed | Per Cent Funds Expected to be Disbursed by End of 2004 | Average Number of Months from Approval to First Disbursement | Average Number of Months from Approval to Planned Completion | Average Length of Delay in Project Planned Completion |
|---------------------------------------|--------------------|---------------------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------|
| <b>GRAND TOTAL</b>                    | 5                  | 1,496,791                             | 59%                         | 3                             | 60%                             | 1,368,395                                    | 91%                                                    | 18                                                           | 62                                                           | 20                                                    |
| <b>Region</b>                         |                    |                                       |                             |                               |                                 |                                              |                                                        |                                                              |                                                              |                                                       |
| Africa                                | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Asia & Pacific                        | 4                  | 1,496,791                             | 59%                         | 3                             | 75%                             | 1,368,395                                    | 91%                                                    | 18                                                           | 62                                                           | 26                                                    |
| Europe                                | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Latin America and Caribbean           | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Global                                | 1                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| <b>Sector</b>                         |                    |                                       |                             |                               |                                 |                                              |                                                        |                                                              |                                                              |                                                       |
| Aerosol                               | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Destruction                           | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Energy Efficiency                     | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Fire fighting                         | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Foam                                  | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Fumigants                             | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Halon                                 | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| HFC phase-down plan                   | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Multiple sectors                      | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Other                                 | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Phase-out plan                        | 1                  | 814,470                               | 69%                         | 1                             | 100%                            | 814,470                                      | 100%                                                   | 26                                                           | 78                                                           | 42                                                    |
| Process agent                         | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Production                            | 1                  | 50,000                                | 0%                          | 0                             | 0%                              | 50,000                                       | 100%                                                   | n/a                                                          | n/a                                                          | n/a                                                   |
| Refrigeration                         | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Several                               | 3                  | 632,321                               | 52%                         | 2                             | 67%                             | 503,925                                      | 80%                                                    | 14                                                           | 55                                                           | 20                                                    |
| Solvents                              | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Sterilant                             | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| <b>Implementation Characteristics</b> |                    |                                       |                             |                               |                                 |                                              |                                                        |                                                              |                                                              |                                                       |
| Agency Implementation                 | 2                  | 50,000                                | 0%                          | 0                             | 0%                              | 50,000                                       | 100%                                                   | n/a                                                          | n/a                                                          | n/a                                                   |
| National Implementation               | 3                  | 1,446,791                             | 61%                         | 3                             | 100%                            | 1,318,395                                    | 91%                                                    | 18                                                           | 62                                                           | 34                                                    |
| <b>Disbursement Method</b>            |                    |                                       |                             |                               |                                 |                                              |                                                        |                                                              |                                                              |                                                       |
| During Implementation                 | 5                  | 1,496,791                             | 59%                         | 3                             | 60%                             | 1,368,395                                    | 91%                                                    | 18                                                           | 62                                                           | 20                                                    |
| After Implementation                  | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Retroactive Funding                   | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |
| Country to Final Beneficiaries        | 0                  | 0                                     | 0%                          | 0                             | 0%                              | 0                                            | 0%                                                     | n/a                                                          | n/a                                                          | n/a                                                   |

Note:

(1) Per decision 22/11(a)(vi), project preparation is not included as a non-investment project.

(2) The sum of each section (Region, Sector, etc.) equals the Grand Total.

## V. STATUS OF AGREEMENTS & PROJECT PREPARATION (WHERE APPLICABLE), BY COUNTRY

### A. Agreements to be Signed/Executed/Finalized & When They Will be Ready for Disbursing

50. Projects with either new partner countries or with new operational modalities require legal agreements between the country and the World Bank. With Stage II HCFC phaseout project approvals occurring between 2016 and 2018, new grant agreements or amendment of existing agreements were required.

51. New grant agreements for HCFC Phase-out Projects were under processing for Viet Nam and China since 2016 in order to permit disbursements from initial tranches to start from the Bank to the countries for the respective Stage II HPMP and PU Foam Sector Plan. This entailed preparation of concepts, project documents, project implementation manuals (PIMs), environmental and social safeguards framework, procurement plans and other related documentation. Each country has in turn their own processing and approval steps. Because of changes in these steps for certain development assistance projects in each country, approval, negotiation and signing of the grant agreements were delayed.

52. In 2018, the overarching ODS VI Project for the Stage II PU Foam Sector Plan in China and eventually, the HPMP was appraised followed by a period of preparation and approvals of related documents, such as the project implementation manual. The new Grant Agreement (GA) between China and the WB was subsequently approved by Bank management and signed in December 2018. Effectiveness was by mid-2019 and start of disbursement was pushed to the fall of 2019.

53. The finalization of the China-World Bank Stage II GA preceded the Executive Committee's approval of the US\$23 million bridging funds for the HCFC production sector (in June 2018). The GA had to be amended in order to raise the project funding level for the Bank-project component related to production. The amendment was signed by China and the Bank in September 2019, allowing disbursement to start by the last quarter of the year. Now with Decision 86/39 on the revised Stage II HPMP – PU Foam and Decision 86/99 on the new Stage II HPMP, the GA for China will have to be restructured once again to reflect an overall reduced grant level. This process will be initiated in 2021 and expected to be completed by the end of year or early 2022.

54. For Viet Nam, the GA negotiations between the State Bank of Viet Nam and the World Bank completed at the end of 2018 and the Bank approved the new project and GA in January 2019. The GA was signed and countersigned on March 7, 2019.

55. A new grant agreement was likewise required for the 2018-approved, Thailand Stage II HPMP. World Bank preparation of the new project documents and the Grant Agreement took place in 2019 and the Grant Agreement was subsequently approved by the Bank in January 2020. Grant Agreement signing took place in August 2020, followed by effectiveness in October 2020. Similar to the agreements for China and Viet Nam, the GA provides for retroactive funding of activities implemented between Bank appraisal and GA effectiveness.

56. offstage I Kigali HFC Implementation Plans (KIPs) were approved in December 2023 for Malaysia and Viet Nam and will require a new Grant Agreement respectively. The Stage III HPMP for Viet Nam, also approved in December will also be included under the new Grant Agreement between the country and the World Bank. The two new Grant Agreements are under preparation and expected to be completed, negotiated, approved, and signed by the end of 2024.

**B. Project Preparation by Country, Approved Amount, and Amount Disbursed**

57. In 2023, there were seven active World Bank project preparation activities. The Preparation of Kigali HFC implementation plan in Indonesia with US\$220,000 in approved funds and US\$ 8,000 in disbursement, and the Preparation of pilot project on energy efficiency in stand-alone commercial refrigeration sector in Malaysia with US\$30,000, the Preparation of a Kigali HFC implementation plan in Thailand with US\$ 220,000, the Preparation of and HCFC phase-out management plan in Thailand with US\$90,000, the Preparation of and HPMP investment project in commercial refrigeration sector in Thailand with US\$80,000, the Preparation of national inventory of banks of waste-controlled substances and development of a national plan for management of these substances with US\$100,000, and the Preparation for a pilot project on energy efficiency in the air-conditioning sector with US\$30,000.

## VI. GENDER MAINSTREAMING

58. This section on Gender mainstreaming is included in the progress report based on decision 90/48(d). In 2023, eighteen (18) projects in two (2) countries are reporting on gender mainstreaming: the Malaysia Kigali HFC implementation plan (Stage I, first tranche), the Malaysia Preparation of Kigali HFC implementation plan, the Viet Nam Kigali HFC implementation plan (Stage I, first tranche), the Viet Nam Preparation of Kigali HFC implementation plan, the Viet Nam HCFC phase-out management plan (stage III, first tranche), and the Viet Nam Preparation of HCFC phase-out management plan (stage III).

59. The overarching preparation of the Kigali HFC implementation plan for Malaysia included consultations at the national and sector levels, as well as bilateral consultations with stakeholders during preparation all included discussion on gender to some extent. The KIP included discussion of gender and plans during implementation, drawing from these consultations. The preparation activities for a pilot project on energy efficiency in stand-alone commercial refrigeration sector and the preparation of HFC investment projects in the refrigeration manufacturing sector discussed gender mainstreaming and gender issues during preparation. The enterprises indicated that they offer equal access to positions throughout the company and agreed to continued reporting on female/male ratio during implementation. One enterprise already has women on the factory floor and a female engineer in the R&D department. Another enterprise has exclusive women management with the exclusion of 2 members. The preparation of HFC investment project in mobile air-conditioning sector discussed during KIP preparation was led by a woman on the enterprise side. The enterprise offers equal access to positions throughout the company and agreed to continued reporting on female/male ratio during implementation.

60. Through the approved Malaysia Kigali HFC implementation plan (stage I, first tranche) the country executing agency (Department of Environment) agreed to continued gender mainstreaming and to seek out opportunities to help foster gender mainstreaming in project activities under its direct control. A gender assessment was conducted and draft report with recommendations to promote gender mainstreaming, that will be integrated into the Malaysia-WB project/Grant Agreement where possible, was received in June 2024.

61. The Viet Nam Preparation of Kigali HFC implementation plan and preparation of a KIP investment project in the industrial refrigeration sector for Quang Thang refrigeration included national and sector levels, as well as bilateral consultations with stakeholders during preparation all included discussion on gender to some extent. While through the approved Viet Nam Kigali HFC implementation plan (stage I), the country executing agency (Department of Climate Change) agrees to continued attention to gender and to seek out opportunities to help foster gender mainstreaming in project activities under its direct control. Gender actions will be reflected in the overarching project under the Viet Nam-WB Grant Agreement.

62. Finally, the Viet Nam Preparation of HCFC phase-out management plan (stage III) and subsequent HCFC phase-out management plan (stage III) also held national and sector levels, as well as bilateral consultations with stakeholders during preparation all included discussion on gender. The HPMP III included discussion of gender and plans during implementation, drawing from these consultations. Through the approved HPMP III, the country executing agency (Department of Climate Change) agrees to continued attention to gender and to seek out opportunities to help foster gender mainstreaming in project activities under its direct control. Gender actions will be reflected in the overarching project under the Viet Nam-WB Grant Agreement.

## VIII. ADMINISTRATIVE ISSUES (OPERATIONAL, POLICY, FINANCIAL, AND OTHER ISSUES)

### A. Meetings Attended

63. Table VI.1 indicates the meetings attended by World Bank Staff on all Montreal Protocol related work in 2023.

Table VI-I: MP Related Events Attended by World Bank Staff in 2023

| 2023 Dates             | Location              | Meetings Attended                                                                                                           |
|------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|
| February 22 – 24, 2023 | Da Nang, Viet Nam     | 15 <sup>th</sup> Annual East Asia and Pacific (EAP) and Montreal Protocol (MP) Joint Regional Workshop on MP Implementation |
| March 7 – 9, 2023      | Montreal              | Inter-agency Coordination Meeting (IACM)                                                                                    |
| March 13 – 15, 2023    | Halong City, Viet Nam | Network Meeting of the Southeast Asia National Ozone Officers                                                               |
| May 29 – June 2, 2023  | Montreal              | 92 <sup>nd</sup> ExCom Meeting                                                                                              |
| July 2, 2023           | Bangkok               | Workshop on strengthening the effective implementation and enforcement of the Montreal Protocol                             |
| October 3-5, 2023      | Montreal              | Inter-agency Coordination Meeting (IACM) II                                                                                 |
| October 20, 2023       | Nairobi               | 71 <sup>st</sup> Implementation Committee Meeting                                                                           |
| October 22-27, 2023    | Nairobi               | 35 <sup>th</sup> Meeting of the Parties                                                                                     |
| November 13-19, 2023   | Nairobi               | Third Session of the Intergovernmental Negotiating Committee (INC-3)                                                        |
| December 11-15, 2023   | Montreal              | 93 <sup>rd</sup> Executive Committee Meeting                                                                                |

## B. Implementing Agency and Other Cooperation

64. Cooperation and coordination by the World Bank with the three Implementing Agencies and Bilateral Agencies are ongoing through cooperation and coordination in project implementation of HCFC phase-out projects (for example in China, Indonesia and Jordan) and in ODS meetings and workshops that take place throughout the year.

65. The World Bank also works with bilateral agencies, namely Japan. The Government of Japan was a partner in the implementation of Thailand's Stage I HCFC Phaseout Management Plan that completed in December 2018 and Viet Nam HPMP Stage II that completed in 2023. The projects successfully delivered technical assistance to address technical and regulatory barriers to the introduction of HFC-32 technology in residential air-conditioner manufacturing. They included guidance for the conversions to ensure safe storage and use of HFC-32 in manufacturing of HFC-32 AC, technical assistance, and training on proper installation, and training for service technicians. Twelve enterprises in total benefitted from this support (including one from Viet Nam) and have been employing HFC-32 in AC manufacturing without problems since 2017 and 2023 respectively.

Commented [MEF3]: We just completed the ICR for the project in June after its completion in Dec. 2023

66. The Bank was a Cooperating Agency in Jordan in the air-conditioning sector where UNIDO served as the Lead Agency. That project completed in 2019. The Bank is the Lead Agency for Jordan's Stage II HPMP covering most of the foam sector. UNIDO is the Cooperating Agency for a spray foam subsector and the servicing sector. The Bank is also a Cooperating Agency in Indonesia and China where UNDP is the Lead Agency of the Stage II HPMPs, in the foam and production sectors. In order to meet overall requirements of the respective Executive Committee-country agreements, the Agencies must have regular dialogue and access to relevant information to be able to execute their part, particularly in terms of annual consumption verification and preparation of the implementation progress reports. This is particularly critical in the case of China whereby the HCFC production sector plays a large role in determining compliance with targets.

67. With the concentration of efforts in delivering HPMPs and HCFC phase-out sector plans for Article 5 countries around the world, cooperation and coordination continues to be a necessity among the Implementing Agencies.

## C. Other Issues

68. There are no additional issues other than those captured in the previous pages.

Annex I

COUNTRY DEVELOPMENTS

The World Bank

## CHINA

### A. Country Developments

1. Active projects under the Bank as an Implementing Agency for China in 2020 comprised of the HCFC Phaseout Project (Stage II) that became effective in March 2019 following Grant Agreement signing. This project includes the Stage II foam polyurethane (PU) sector plan as well as HCFC production closure bridging fund of US\$ 23million. HPMP Stage II fourth tranche PU foam sector was newly approved in December 2023 at the 93<sup>rd</sup> ExCom meeting.
2. The overall Grant Agreement of the China and World Bank HCFC Phase-out Project (Stage II) that houses the Stage II sector plans for China on foam and eventually, HCFC production was signed in December 2018 and became effective in March 2019 (following successful receipt of a necessary legal opinion).
3. Under HPMP Stage II Project, a total of 11 subprojects were under implementation at the start of 2020 by project beneficiaries. As of the end of 2023, cumulative phase-out from the subprojects is 1,189 MT of HCFC-141b from the first round of 11 enterprises with subgrant agreements (SGAs) at a cost of more than US\$ 8million. Twelve additional SGAs were signed with the second round of enterprises between 10-13 June 2022 worth a total US\$ 4.9million for the phaseout of 1,068 MT of HCFC-141b. By end of 2023, 12 subprojects had started, with 2 already in the equipment trial run stage, 1 already signed the equipment procurement contracts. This included 3 companies converting to hydrocarbon, 3 to HFOs and the rest to water blown technology. The system house project approach was launched in November. In 2023 with 17 potential foam system house candidates applying for a system house project for all three alternatives (HC, HFO and CO<sub>2</sub>) to cover an estimated 5,175 MT. Five foam TA contracts led to US\$320,576 in disbursement by end of 2023. In addition, FECO continues to implement cross-cutting TA activities outside of the project's direct scope, that will support the phase-out in the PU foam sector and other sectors.
4. The HPMP fourth tranche is newly approved in December 2023 at the 93<sup>rd</sup> ExCom and will support subprojects at 12 enterprises. By June 2024, implementation of the second batch of 12 enterprises that targets 1,068 MT in phaseout is now in the advanced stage with 11 companies having completed conversions as determined by on-site verifications and one converting to HC still constructing the new plant where the new equipment will be installed. Solicitation of the third batch of foam enterprises to conduct the phase-out subprojects led to the pre-identification of another 9 companies worth 527 MT of HCFC-141b consumption. Three companies plan on converting to HFO technology, 2 to hydrocarbons and the rest to water blown technology. Consumption and eligibility verification is planned by July 2024, along with the 17 system house enterprises. Thereafter, subgrant agreements/contracts can be signed. For TA, FECO plans on completing the study /impact assessment on the ban of use HCFC-141b as blowing agent in PU Foam Sector. As of June 2024, FECO awaited approval of the shortlisting of consultants. The study is to be completed by September 2024 to allow MEE to develop and launch consultations on the ban prior to issuance in 2025.

5. During the first half of 2023 the implementation of the 12 subprojects is ongoing. As of the mid-2023, three enterprises converting to HFO plus 5 enterprises converting to water (a total 8 subprojects) have received onsite verification of the Implementation Support Agency. FECO completed the second disbursement to these 8 beneficiaries. Two enterprises which are converting to hydrocarbons finished the equipment procurement process and have also received the second disbursement from FECO. Some subprojects have met the conditions for the second or third disbursement but need to wait for the release of the last payment of the third tranche (2021) to FECO.

6. In terms of HCFC production phase-out bridging fund, the COVID-19 pandemic did not impact overall level of HCFC production for controlled uses during first half 2020 which may be due to the increased need for refrigeration in the cold chain - offsetting reductions in other sectors. The independent verification conducted by the World Bank confirmed China's compliance with the Montreal Protocol and MLF maximum allowable production schedule during the 2019-2020 period. The production of HCFCs in 2020 was 16,123 ODP MT which is below 18,929 ODP MT production limit (65% of baseline).

7. The 2022 and 2024 funding tranches stated in the HPMP, which were approved by the ExCom in 2021, will assist China to meet the MLF maximum allowable production schedule during 2022-2026 period and complete phaseout of HCFC-141b by the end of 2025. The 2020 reduction was achieved primarily through China's control of the production quota for controlled uses. As of the end of 2021, FECO completed disbursement to 23 production quota reduction contracts and one production line closure contract with total value of US\$17.63 million. Under the TA part, a contract was signed in April 2021 with a research center to conduct the "Investigation on 2019-2022 consumption of Feedstock Applications of HCFCs." The report for 2019-2020 was completed by October 2021 with the Executive Summary. Two seminars, one on HCFC phase-out policy and supervision management with HCFC producers and another for HPMP Stage II with HCFCs ODS and feedstock producers were held in 2021.

8. Between January and June 2023, a report on the investigation on HCFCs dealers for the year 2020-2021 was completed and submitted to the 92nd ExCom. Ongoing TA includes investigation of HCFC feedstock uses and research on HCFC feedstock applications status and trends in China.

9. For the phase-out activities to be implemented in 2023 with the 2022 funding tranche, FECO plans to prioritize production closure, in particular HCFC-141b producers that are subjected to complete phase-out in 2026 and discuss and review the plan and compensation rates with the Bank team in mid-2022. The TA activities' implementation plan of 2023 with the 2022 funding tranche was discussed and confirmed with the Bank team in June 2022. The second Tranche was approved by the 91st ExCom in December 2022 and verification of the HCFC production sector was approved in December 2023. Since approval, activities started without delay; all 2022 and 2023 HCFC production quotas issued to HCFC producers to ensure reduction targets are met. Independent verification confirmed that the 2022 HCFC production were within the limits given by the HPMP agreement. Two closure and one quota-reduction contracts were signed with three HCFC-141b producers. Four TA: capacity building activities were signed with local EEBs in Shandong, Jiangsu, Inner Mongolia, and Jiangxi provinces. Preliminary HCFC production data reported by the producers indicated that the 2023 data are within the limits under the HPMP stage II agreement. By June 2024, the Bank verification team had completed first round visit to verify 2023 HCFC production and will commence the second round visits to remaining HCFC producers starting July to August 2024.

## INDONESIA

### A. Country Developments

10. The second and third tranches of the Stage II HCFC foam sector plan were completed implementation in December 2023.

11. The Preparation of a Kigali HFC implementation plan was approved at the 92<sup>nd</sup> ExCom in June 2023. Coordination with the Country Management Unit (CMU) to establish a code for utilizing the allocated funds is underway, alongside the procurement of a consultant to support the national data survey and preparation for launching the KIP.

12. The Stage II HCFC foam sector plan second and third tranche were completed in September 2023. One company, PT Wijaya Karya (WIKI) completed its technology conversion on May 20<sup>th</sup>, 2021, after delays due to company staff exposure to COVID-19. Payment for the final milestone was made in June 2021. Two mid-size company subprojects are still under implementation. PT Koronka signed a subproject agreement (Foam Technology Replacement Agreement, FTRA) in March 2021, and was initially expected to complete conversion by February 28<sup>th</sup>, 2022. PT Mitra Lestari Bumi Abadi (MILBA) signed a FTRA on December 17<sup>th</sup>, 2021. This would have been the last company to be converted under the midsize category. The company was expected to complete its technology conversion by September 2022.

13. CV Koronka had experienced difficulties in equipment installation (failure with the polyol pump). Although the pump was replaced in March 2022, the internal computer (programmable logic controller) can only be programmed by on-site visit by the equipment manufacturer. All mid-size companies under stage 2 were completed with PT Koronka as the last company was completed in August 2022 after delays due to impossibility of supplier technician to visit the company and trouble-shoot installation of equipment because of visa issues related to the COVID-19 pandemic. PT MILBA had been having a dispute with the local community regarding building permit. The company had indicated that under these conditions, they are unlikely to complete the technology conversion in due time. PT MILBA was not able to commence the technology conversion on schedule due to dispute with the local community regarding building permit, therefore decided to withdraw from the program and had returned the initial payment.

14. Guidelines for the voucher scheme have been developed to operationalize the scheme, legalized under the Decree of Minister of Environment and Forestry Number SK.485/MENLHK/SETJEN/KUM.1/8/2021 on “Guidelines for Voucher Distribution Mechanism to the System House under HCFC Phase-out in the Polyurethane Foam Sector Project” and the Decree of Director General of Climate Change Number SK.30/PPI/MPI/KUM.1/8/2021 on “Technical Guidelines for Voucher Distribution Mechanism to the System House under HCFC Phase out in the Polyurethane Foam Sector Plan Project.”

15. The scheme was developed based on electronic application and has been trial successfully involving 56 SMEs under 2 System Houses (PT Intimas and PT Sutindo) in the period of November to December 2021. The pilot implementation of the Voucher System (VS) in November and December 2021 was successful. The VS were fully operational in 2022, involving more than 200 small scale enterprises. By December 2022, the VS has contributed to approximately 116 MT phase out of HCFC-141b.

16. The review of implementation of the voucher scheme was concluded April 18<sup>th</sup>, 2022. The trial was considered successful involving 56 SMEs. The scheme now is in full operation with no modification. The allocation of the voucher for 2022 for SMEs was determined through a coordination meeting between KLHK and World Bank on June 3<sup>rd</sup>, 2022, and valid until December 31<sup>st</sup>, 2022. During the first half of 2023, the NOU continues to implement the Voucher System until project close to support remaining eligible small-scale companies, through system houses. From January to end of May 2023, VS has contributed to phase out of 78 MT HCFC-141b. Other activities are monitoring and evaluation for completed beneficiaries as well as continued implementation of voucher scheme distribution. Additional activities are preparing Project Completion Report and outreach material.

17. For the Enabling activities for HFC phase-down, the project was closed June 30<sup>th</sup>, 2021. In 2022, the NOU continued to provide technical input to the relevant government departments on the impact of the Kigali Amendment based on the work accomplished under this project, including determination of the Kigali baseline.

**JORDAN****A. Country Developments**

18. The Stage I HPMP was completed and reported on by the end of 2019. The Stage II HPMP, with the World Bank, as Lead Agency, covers all foam manufacturing (except spray foam) and is supporting Jordan to fulfill its commitment to reduce HCFC consumption by 50% of the baseline by 2022.

19. The Preparation of HCFC phase-out management plan Stage III Overarching transferred and Preparation of HCFC phase-out management plan Stage III commercial refrigeration manufacturing closed. The HCFC phase-out management plan Stage II, third tranche was approved at the 91<sup>st</sup> ExCom in December 2022.

20. Jordan's Article 7 data indicated that its consumption in 2020 was within the agreed limit of ExCom – Jordan multiyear agreement (at about 54 ODP tonnes). The Government of Jordan published in the Official Gazette (March 2021) the ban on the import of HCFC-141b substance and pre-blended polyol containing HCFC-141b for insulation foam applications that would enter into force on 1 January 2022. Out of the six enterprises with signed SGAs and commitment of \$0.9 million, four foam enterprises had completed installation of the equipment with the aim to start commercial production in 2022 after complying with Civil Defense Directorate's safety requirements to use cyclopentane while a domestic refrigerator manufacturer is expected to receive their foam equipment in 2022. One foam enterprise informed Government of Jordan (GoJ) that due to severe business disruption from COVID-19 pandemic, it was not able to complete the conversion to cyclopentane technology but would convert to its original technology choice of using HFO foam materials.

21. During 2021, GoJ conducted workshops with small- and medium foam enterprises with participation by foam suppliers to demonstrate alternative foam materials. Five shutter manufacturers received ExCom's approval (Decision 87/12) to water-based foam materials. The Government invited foam suppliers to provide water- and HFO-based foam materials to SMEs and expected to finalize the selection of foam supplier in 2022.

22. The conversion of the foam manufacturing, payments and inspections of all large foam enterprises was completed. The supplies of alternative foam materials to SMEs initiated in the second half of 2023 progressed slow due to procurement, distribution and logistical delays. Government will be completing bulk procurement and delivery of alternative foam materials to SMEs by the end of June 2024.

23. Between January and June of 2023, the Government of Jordan had conducted final inspections of five foam enterprises to ensure project completion, commercial production, and disposal of relevant foam equipment. For SMEs that are receiving assistance to convert to HFO-based and water-based foam formulations, the Government had finalized the selection of a foam supplier to provide alternative foam materials for commercial production after receiving positive feedback by selected SMEs to test the initial batch last year. It is expected that the first batch to be delivered to SMEs starting July 2023.

24. The Government of Jordan is seeking extension of the tranche until December 2023 in line with the planned approach to complete installation of foam equipment and assistance to SMEs.

25. The third tranche of the Stage II HCFC phase-out management plan for Jordan is approved in December 2022. Since approval, the Government had finalized the selection of a foam supplier to provide alternative foam materials for commercial production after receiving positive feedback by selected SMEs to test the initial batch last year. The first, second, and third tranche of Stage II HCFC phase-out management plan for Jordan will be expected to completion in June 2024.

26. Stage III of the Preparation of HCFC phase-out management plan was newly approved in November 2021. The Bank discussed preliminary workplan with the Government to prepare stage III HPMP and commercial refrigeration sector plan including identification of local/regional consulting firm with MP experiences, stakeholder consultation workshops, scope of data survey, development of draft and final HPMP for submission. Since approval in December 2021, and based on the NOU's consultation with the industry, Jordan's commercial refrigeration sector stopped using HCFC in manufacturing new products in 2022. Given Stage III HPMP for Jordan will only comprise servicing sector, the Government of Jordan requested the 91st ExCom to transfer WB's component to prepare overarching strategy to UNIDO.

#### *B. Institutional Strengthening*

27. The NOU continued to coordinate missions of the Implementing Agencies as well as convene the National Ozone Committee to agree on 2022 import quotas and facilitate issuance of instructions for controlling imports and exports of ODS and alternatives. The NOU was able to organize some public meetings and workshops for the national stakeholders after relaxation of Government's restrictions starting in second half of 2021. The NOU experienced turnovers at key administrative positions (financial management officer and procurement officer) which resulted in lower disbursement than expected.

28. Between January and June 2022, the NOU has continued to coordinate virtual missions of the World Bank (mission in February and monthly follow up meetings) as well as convene the National Ozone Committee on key MP implementation issues to agree on 2023 import quotas and facilitate issuance of instructions for controlling imports and exports of ODS and alternatives.

29. The NOU compiled and submitted the 2023 Country Programme to the Multilateral Fund Secretariat and 2023 Article 7 data to the Ozone Secretariat by their respective deadlines. NOU staff attended the 35th Meeting of the Parties to the Montreal Protocol (MOP35) in October 2023. The NOU was able to appoint one key administrative position (financial management) in April and one technical staff to assist in monitoring the implementation of the Montreal Protocol.

## **MALAYSIA**

### *A. Country Developments*

30. The World Bank Preparation of Kigali HFC Implementation Plan (KIP) in Malaysia was approved in July 2021. The funding was made available to the World Bank in late 2021. Additional HFC phasedown scenarios have been developed to inform Government of Malaysia consultations with industry. The KIP preparation TOR was developed and agreed upon. Virtual coordination meetings were held with the government of Malaysia.

31. Stage I KIP data analysis and modeling completed by June 2023. Strategy and KIP document developed and submitted to the ExCom in August 2023. A full KIP preparation mission completed in February 2023 and another mission undertaken on import data and quotas in October 2023. Malaysia's Kigali HFC implementation plan Stage I, first tranche for mobile-air conditioning, commercial refrigeration, servicing sector and technical assistance and PMU were approved in December 2023 at the 93<sup>rd</sup> ExCom.

32. The survey and KIP preparation consulting firm was selected and brought on board by March 2022. The KIP launch (hybrid) workshop was held 30 March 2022, attracting 200 participants in-person and online. Comprehensive data survey for 2019-2021 was completed in September 2022, followed by focus-group and sector consultations. The data validation was completed between August to November 2022. The World Bank conducted technical, KIP preparation missions in July and late November 2022 and participated in consultations with the MAC, fire suppression, RAC sectors as well as several bilateral meetings with industry and relevant agencies (Energy Commission, etc). Final data report submitted to Department of Environment and the WB in December 2022.

33. Three Preparation of HFC investment projects (in firefighting sector, mobile air-conditioning sector, and refrigeration manufacturing sector) were approved in December 2022 with the funding made available to the WB only in March 2023. Since approval in December 2022, the Preparation of HFC investment projects in firefighting sector had site visits completed for four enterprises, stakeholder consultations done, and additional data collected through site-visits, email and meetings. The preparation funding was returned at the 93<sup>rd</sup> ExCom in December 2023 as the fire suppression industry opted not to participate in the sector plan nor subprojects under the Stage I of the KIP. For the Preparation of HFC investment projects in the mobile air-conditioning sector and commercial refrigeration, the planned beneficiary enterprise was visited at each of its two plants by international and local consultants. Data was collected and exchanged, virtual meetings were held, and a draft project was prepared.

#### *B. Institutional Strengthening*

34. Consulting firm's draft KIP report was submitted to DOE and the WB in January 2023. Due to a change in the 92nd ExCom submission deadline, decision taken to submit the Malaysia Stage I KIP to the 93rd Meeting. A second national stakeholder workshop convening industry and government agencies was held on 6 March 2023. Dialogue was held with GoM on project legal, financial and implementation arrangements, and data analysis redone by WB team to include 2022 import data which was shared in final form in April 2023. Scenario analysis and modeling were done by mid-May and KIP strategy to be completed by end May, followed by completion of the KIP document. KIP strategy to be considered and approved by Malaysia's Cabinet by early August 2023. KIP to be submitted on 21 August 2023 after OORG technical review.

### **THAILAND**

#### *A. Country Developments*

35. Thailand's Stage II HCFC Phaseout Management Plan (HPMP) was approved in late 2018 and a new Grant Agreement (GA) was approved by the World Bank in January 2020 with a clause to allow retroactive finance of expenditures from January 2020 onwards. The Department of Industrial Works (DIW) and Government Saving Bank (GSB), which is the financial intermediary of the Stage II HPMP, jointly prepared the Project Implementation Manual (PIM) for the project and finalized it in February 2020. The GA was counter-signed in August 2020 and became effective in October 2020.

36. The preparation of HCFC phase-out management plan Stage III for the commercial refrigeration sector and overarching were newly approved at the 93<sup>rd</sup> ExCom in December 2023, with MLF funding of US\$ 80,000 and US\$90,000 approved, respectively.

37. The HCFC phase-out management plan (stage II, second tranche) for Spray foam manufacturing, refrigeration servicing sector and PMU were approved at the 92nd ExCom in June 2023. The Preparation of a Kigali HFC implementation plan Stage I, Preparation of an HCFC phase-out management plan Stage III, and Preparation of an HPMP investment project in commercial refrigeration sector were approved at the 93rd ExCom in December 2023. The 2021 consumption verification has been completed. Import data indicate that Thailand is within agreed limits of ExCom-Thailand multiyear agreement (at about 280 ODP tonnes).

38. As of end December 2023, six spray foam subproject proposals had been initiated, however, one company (Beam Chem) was dropped due to insufficient consumption data. Two conversions to HFO-preblended polyols under subgrant agreement (SGA) worth US\$219,510 were completed. The 3 others are under various stages of implementation. 2nd disbursement made to Lohr Trade and Dabco following the acquisition of spray foam machines; 3rd disbursement made to Narongrit subsequent to purchasing the spray foam machines and submitting the disposal plan. Presently, Lohr Trade is awaiting the importation of HFOs from their supplier. DIW is in the process of verifying the disposal plan submitted by Dabco - only confirmation of disposal plan implementation is pending. Narongrit is actively seeking an auditor to conduct an audit of its environment management plan. Total funding allocated to larger (group I) enterprises is US\$749,150 with about 50% disbursed. A draft subproject was prepared for a system house to target downstream small spray foam enterprises that were identified during project preparation to adopt reduced-HFO pre-blended polyol technology. The subproject, worth an estimated US\$413,925, will provide technical and financial support to small spray foam beneficiaries (Group III enterprises) and 7 remaining enterprises (Group II) using an innovative approach, including rental of spray foam equipment. With the 2022 delivery of 72 sets of training equipment for six training centers each in OVEC and DSD, training of technicians could begin. As of June 2023, 2,040 technicians out of 4,560 targeted had been trained. In addition, basic tools are provided to technicians as a training incentive, thus a little over 2,000 units of tools were provided by mid-2023. The PMU at GSB is fully operational.

39. During the first half of 2023, the first SGA worth US\$103,370 out of the six larger spray foam subproject proposals, has been completed. The other 3 SGAs have been signed and under implementation, worth US\$77,330, US\$116,140, and US\$149,675, respectively. The remaining 2 subprojects are in the final stages of proposal preparation and appraisal by GSB-PMU. Polyurethane Industry Group will conduct workshops to educate enterprises on using new non-ODS blowing agents without compromising significant product quality after September 2023. Hands-on training on reduced-HFO formulation via main system houses also planned by September 2023. Upon completion of the six subprojects, a total of 127 MT (metric tons) of HCFC-141b will be eliminated. DSD has completed 12 training sessions for 240 technicians. OVEC completed 15 training sessions with 360 technicians trained. In total, so far, the DSD and OVEC has completed 48 training sessions with 960 technicians in 2023. In 2022 consumption verification indicates that Thailand has met 2022 targets. Second funding tranche for the Stage II HPMP approved in June 2023 at the 92nd ExCom. Solvent sector workshop on non-HCFC-141b alternatives is planned for September 2023.

40. Data analysis, modeling of various scenarios and technological pathways along with the economic costs of ratification or non-ratification was completed by end June 2021. Consultations and strategy options paper with scenarios/technology roadmap has been prepared by the second half of 2021 and shared with the Government of Thailand.

41. The Conversion from HFC to propane (R-290) and isobutene (R-600a) as a refrigerant in manufacturing commercial refrigeration appliances in Pattana Intercool Co. Ltd. Project has been fully physically completed as of December 2021 to include date of disposal of baseline equipment and cessation of HFC-134a use on the line (although conversion itself completed in March). Financial completion was achieved in October 2022. Project completion report was prepared in draft and submitted for review by early 2022. Review and comments provided in March 2022 and clarifications and additions in terms of costs and lessons learned, received in June 2022. The PCR was submitted to the MLF in October 2022.

#### *B. Institutional Strengthening*

42. Institutional strengthening (IS) funds have been used to enhance the capacity of the National Ozone Unit (NOU) in the DIW and government agencies to effectively implement ODS phaseout in compliance with the country's obligations.

43. The Grant Agreement (GA) between Thailand and the World Bank was approved by the World Bank in January 2020, countersigned in August 2020, and became effective in October 2020. Retroactive and late 2020 payments could not be processed until early 2021 but IS implementation continued as possible in light of the COVID-19 pandemic.

44. A 2-year extension to the institutional strengthening project was approved in December 2021. The NOU continued to provide inputs to WB in regard to the HFC enabling activity consultant data and analysis. Due to COVID-19, travel in 2021 was also constrained. The NOU however held a successful (based on responses) an online World Ozone Day event. Other activities included 2020 CP data and Article 7 data reporting. Quota for 2021 HCFC imports issued in a timely manner and within the maximum allowable consumption level agreed between Thailand and ExCom. Activities completed in 2021, included attendance at the online 43<sup>rd</sup> OEWG and 33<sup>rd</sup> MOP Meetings. NOU provided support to Customs for identifying various refrigerants and blends, and HCFC consumption monitoring continued as permitted with COVID restrictions. The NOU is in the process of filling another two positions: one for a technical and data officer and another for a public outreach officer. Two hybrid WB missions were hosted by DIW in 2021.

45. Activities completed in 2023 include issuance of quotas for HCFCs, while developing the quota allocation for HFCs for 2024, including consultations with importers and other interested parties-the 2024 import quota was finalized and announced in December 2023. SOP prepared to clarify quota allocation process for HFCs to importers. In person attendance at the 45th OEWG Meeting in Bangkok and at the 36th MOP in Nairobi by the Thailand delegation. DIW also attended the WB's annual MP East Asia Regional Workshop in Danang in February 2023 and two WB training seminars in July and October 2023. For 2023 Ozone Day, DIW developed an outreach program for raising awareness of the ozone layer and climate protection. The outreach program consisted of activities for the general public, relevant industry sectors, and academia HCFC consumption monitoring continued. On the administrative side, the NOU still is in the process of filling two positions for a technical and data officer and public outreach officer, and as of 2023, a financial management officer. The NOU hosted World Bank implementation support missions in March and July 2023.

## VIET NAM

### A. Country Developments

46. The preparations of national inventory of banks for waste-controlled substances and development of a national plan for management of these substances and the preparation for a pilot project on energy efficiency in the air conditioning sector (decision 91/65) were approved in December 2025.

47. The Preparation of a Kigali HFC implementation plan is completed in December 2023. KIP preparation launch workshop held in February 2024. Data reconciliation, analysis, and modeling done by the 2nd Quarter of 2023. The strategy was developed from the results of the prioritization model and KIP document was developed. WB preparation missions were held in February and July 2023. Bilateral and sector level consultations were held throughout Quarter 1-3 2024.

48. The four Preparation of a KIP investment projects in the commercial, domestic, and industrial refrigeration sector as well as mobile air-conditioning sector, were approved in June 2023 at the 92<sup>nd</sup> ExCom. However, the Preparation of a KIP investment project in the commercial refrigeration sector for Sanaky, Preparation of a KIP investment project in the domestic refrigeration sector for Aqua Electrical Appliances, Darling Electronics, and Hoa Phat Refrigeration Engineering, and Preparation of a KIP investment project in the mobile air-conditioning sector for Thaco Auto, approved funding was returned at the 93<sup>rd</sup> ExCom as participants decline to participate in the Stage I KIP. Only Preparation of a KIP investment project in the industrial refrigeration sector for Quang Thang Refrigeration proceeded, with one site visit, numerous online meetings and email exchanges.

49. The four Kigali HFC Implementation Plan Stage I for industrial refrigeration sector, rail mobile air-conditioning conversion, servicing sector and PMU were newly approved in December 2023 at the 93<sup>rd</sup> ExCom. Total MLF funding of US\$1,557,792 was approved, and the projects are expected to phaseout 481,665 metric tons of consumption. The HCFC phase-out management plan Stage III for servicing sector and PMU were newly approved in December 2023 at the 93<sup>rd</sup> ExCom, with a total MLF funding of US\$ 3,227,127.

50. Subsequent to December 2023 ExCom approval, a Government of Viet Nam (GoV) project document was prepared and circulated to line ministries in June 2024 for approval (needed prior to completing the new project Grant Agreement (GA) with the WB). Quota allocation for 2024 issued employing a model prepared for the Stage I KIP. Preparation activities surrounding the new GA between GoV and WB stepped up following ExCom approval. Environment and social framework (ESF) instruments, including an environment and social management framework (ESMF) prepared in draft, work plan for the entire plan duration prepared, and procurement strategy and plan nearly finalized. WB GA preparation mission conducted in March 2024.

51. HCFC consumption verification for 2020 by independent consultant was completed by end of April 2021 confirming that MP and MLF targets were met. Subproject proposal submissions for target manufacturing sectors (AC, PU foam and refrigeration) continued to experience delays despite efforts to facilitate procedures to attract enterprises and other measures. By end of 2021, 5 subgrant agreements (SGAs) were signed across sectors with two in the AC sector signed in August and November 2021. The XPS foam subproject was cancelled, and approved funding returned at the 87<sup>th</sup> ExCom due to verified ineligibility of enterprise.

52. A third-party consumption verification confirmed that Viet Nam met its 2022 HCFC consumption obligation to both the MP and MLF (at 139.02 ODP MT), meaning that Viet Nam successfully met all of its phaseout commitments under the Stage II HPMP. Eleven subgrant agreements (SGAs) were signed and implemented before project completion: 2 in the AC sector, 3 in the refrigeration sector and 6 in the foam sector, including with a foam company acting as a blending house that in turn worked with 15 SMEs. By the end of 2023, 101 training workshops for servicing technicians were held, resulting in a total of 3,200 trained, 6 train-the-trainer workshops on good practices in AC servicing held for a total 187 trainers trained, and \$1.8 million worth of servicing toolkits for training and for direct repair and maintenance procured and distributed. A Standard for Capacity Assessment/Certification of Technicians issued and a web-based database for capacity building/servicing sector activities developed and officially linked to an existing MONRE website by March 2024. Seven training workshops for customs officers on management of ODS import and export were implemented between 2021-2023 resulting in 350 customs officers trained. In terms of TA, training on safe R-32 based AC manufacturing at Viet Nam AC companies was conducted in collaboration with JRECO, a national standard for foam production using flammable blowing agents was developed; consumption verifications for years 2016-2022 were conducted, and key policies (HCFC import quotas and bans of HCFC in imported room AC and of HCFC-141b contained in imported preblended polyol) were developed and issued, as per Decision 76/42. ExCom agreed to cancellation of US\$5.2 million from three manufacturing sectors as well as reallocation of US\$1.3 million to the servicing sector at the 90th Meeting and the revised multiyear agreement and 4th and final tranche approved in December 2022 at the 91st Meeting. Additional savings were incurred by project completion and will be returned at the 95th Meeting.

53. In August-September 2022, the PMU in collaboration with JRECO organized theoretical and practical training courses on R-32 safety in AC manufacturing and servicing for 20 technicians of Nagakawa, carried out 2 site visits to accredited agencies for testing the AC performance in the North and in the South. By the end of 2022, total servicing technicians trained was 2,110. Twenty leak detectors were delivered to refrigeration end-users for leakage control and management in June 2022. Project's financial audit report was submitted in June 2022. Training for customs officers on HCFC control was conducted in June and August 2022. Safety training for beneficiary enterprises was implemented in September 2022. Viet Nam's reallocation request of funding from the refrigeration sector to servicing was approved, albeit in return for additional HCFC deductions from its starting point. The reallocation will allow Viet Nam to address a shift of R-22 consumption in the servicing sector which is keeping its consumption at the maximum allowable limit.

54. On the policy side, Viet Nam with PMU support successfully promulgated the bans in HCFC imports in the AC and foam sectors for application since/in January 2022 and planned for January 2023 (effectiveness) respectively. PMU continued implementation support with all project procurement (except under the subgrants with enterprises), awarding 21 out of 24 packages. It procured US\$0.8 million in equipment and tools for the servicing sector. It also selected and oversaw all consultants under the PMU, TA and servicing sectors, entailing TOR development (5 in 2022), competitive selection, contract management and review of deliverables. ExCom agreed to cancellation of US\$5.2 million from three manufacturing sectors as well as reallocation of US\$1.3 million to the servicing sector at the 90th Meeting and the revised multiyear agreement and 4th and final tranche approved in December 2022 at the 91st Meeting.

55. As of end June 2023, the number of servicing technicians trained increased to 3,018. Bidding for equipment and tools to be purchased with the reallocated funds to the servicing sector done in April 2023 followed by contract signing with an equipment supplier. One of the AC SGAs was completed, and PCR submitted by April 2023, the other (Nagakawa) completed trials in April 2023 and is awaiting a fire protection certificate from competent authorities before completion (expected Q3). Technology conversion is completed by Saree (refrigeration sector) with its baseline equipment destroyed in June 2023. All remaining SGAs in foam under implementation. Group SME project signing of individual companies expected by August 2023. The train-the-trainer training workshop on leakage management for teachers from vocational and training schools was conducted in March 2023. Workshop on sharing experiences in training for servicing technicians was implemented in June 2023. Financial audit for 2022 was conducted by consulting firm. In 2022, consumption verification under preparation. All remaining ongoing SGAs and activities to be physically completed by December 2023.

56. The Preparation of Kigali HFC implementation plan for Viet Nam was approved in December 2021. During 2022, a consulting firm hired by and immediately commenced the survey. KIP launch workshop was held October 2022. The survey was completed by end December 2022 and consultant submitted the draft data report and database, policy review and review of HFC alternatives. Top down 2022 data added to the KIP after government preparation and approval in 2023. Analysis of the data done by the consultant in by February 2023 and redone by the WB (particularly growth analysis and modeling of HFC phasedown across stages) by June 2023. Enterprise visits and further consultation with industry expected by early June followed by drafting of the KIP, finalization and submission to the 92nd ExCom (21 August 2023).

57. In February of 2023, the World Bank held its 15<sup>th</sup> East Asia and Pacific Regional Workshop in Danang, Viet Nam.