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THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-third Meeting
Montreal, 15-19 December 2023
Item 7(a)(vi) of the provisional agenda¹

PROGRESS REPORT OF THE WORLD BANK AS AT 31 DECEMBER 2022

Introduction

1. This document presents the progress report of the World Bank as at 31 December 2022.²
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 2022, 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 CO₂-eq tonnes.³
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 2022 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 implementation of each ongoing⁴ project at the country level. It identifies projects with

¹ UNEP/OzL.Pro/ExCom/93/1

² The progress report is attached to the present document. The data has been included in the Consolidated Progress Report database that is available upon request.

³ In line with decision 84/12(a)(iv), the measurement for HFCs in CO₂-eq tonnes is included in the progress reports submitted to the 93rd meeting.

⁴ Ongoing projects are all projects that were under implementation as at 31 December 2022. Key indicators of progress include percentage of funds disbursed and percentage of projects that have begun disbursing funds; funding expected

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.⁵

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 2022 and cumulative since 1991

5. As of 31 December 2022, the Executive Committee had approved US \$1.32 billion in projects for the World Bank, consisting of US \$1.19 billion for the implementation of investment and non-investment projects and US \$124.96 million for agency support costs, as shown in table 1.

Table 1. Approved funding by sector for the World Bank as at 31 December 2022

Sector	Funding (US \$)
Aerosol	22,984,030
Destruction	400,000
Foam	136,059,064
Halon	70,221,038
HFC phase-down plan	665,000
Fumigants	5,837,887
Multiple sectors	2,341,168
Other	5,059,360
Phase-out plan	212,206,926
Process agent	114,342,497
Production	400,893,496
Refrigeration	180,259,970
Several	29,413,466
Solvents	10,237,394
Sterilant	661,227
Sub-total	1,191,582,522
Agency support costs	124,964,722
Total	1,316,547,244

6. In 2022, eight new projects and activities were approved. This level of funding is expected to result in the phase-out of 313,381 ODP tonnes of consumption and production of controlled substances. Annex I shows the status of project implementation per country in 2022.

7. Table 2 shows the status of project implementation including fund disbursement per project type as at 31 December 2022. Annex II presents analytical information per year since 1991.

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.

⁵ In line with decision 84/12(b), a detailed progress report providing an overview of the objectives, status of implementation, key findings and lessons learned, the amounts of HFC phased out where applicable, the level of funds approved and disbursed and potential challenges in completing the projects and activities, is presented in the consolidated progress report (UNEP/OzL.Pro/ExCom/93/14).

Table 2. Status of project implementation by type as at 31 December 2022

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	48	94	10,013,716	9,413,540	600,176	94
Investment	640	627	98	1,132,361,745	1,101,261,445	31,100,300	97
Project preparation	299	291	97	27,443,320	26,765,291	678,029	98
Technical assistance	76	74	97	13,657,342	13,095,419	561,923	96
Training	4	4	100	305,766	305,766	0	100
Total	1,107	1,081	98	1,191,582,522	1,158,642,094	32,940,428	97

*Excludes closed and transferred projects.

**Excludes agency support costs.

8. Implementation of projects and activities by the World Bank for 2022 and cumulative since 1991 up to 31 December 2022, is summarized as follows:

- (a) **Phase-out:**⁶ In 2022, zero ODP tonnes of consumption of controlled substances were phased out and an additional 98.2 ODP tonnes of consumption and 5,947 ODP tonnes of production of controlled substances were approved for phase-out. Since 1991, 148,230 ODP tonnes of consumption of controlled substances and 187,996 ODP tonnes of production of controlled substances had been phased out, of an expected total of 313,381 ODP tonnes from projects approved (excluding cancelled and transferred projects);
- (b) **Disbursements/approvals:** In 2022, US \$7.82 million was disbursed and US \$8.70 million was planned for disbursement based on the 2021 progress report, representing a rate of disbursement of 90 per cent of that planned. Cumulatively, US \$1.16 billion had been disbursed out of the total US \$1.19 billion approved for disbursement (excluding agency support costs), representing a rate of disbursement of 97 per cent. In 2022, US \$23.59 million was approved for implementation;
- (c) **Cost-effectiveness (in ODP):**⁷ Since 1991, the average cost-effectiveness of investment projects approved leading to a permanent reduction in consumption was US \$5.45/kg and for the production sector was US \$4.78/kg. The average cost-effectiveness of investment projects per ODP tonne was US \$3.22/kg for completed projects and US \$7.03/kg for ongoing projects;⁸
- (d) **Number of projects completed:** In 2022, two projects were completed. Since 1991, 1,081 projects of the 1,107 projects approved (excluding closed or transferred projects) were completed, representing a completion rate of 98 per cent;
- (e) **Speed of delivery – investment projects:** In 2022, one investment project was completed with a duration of 69 months after its approval. Since 1991, the average time for completion

⁶ All the controlled substances under these projects were ozone-depleting substances.

⁷ All the controlled substances under these projects were ozone-depleting substances.

⁸ 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.

of investment projects has been 40 months after their approval. First disbursements under these projects occurred, on average, 24 months after they had been approved;

- (f) **Speed of delivery – non-investment projects:** In 2022, one non-investment project was completed with a duration of 13 months after its 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 299 project preparation activities approved by the end of 2022, 291 have been completed, leaving eight ongoing activities. The World Bank did not complete any preparation activities in 2022;
- (h) **Implementation delays:** A total of 26 projects were under implementation at the end of 2022, experiencing, on average, a delay of 11 months. Four of these projects are classified as “projects with implementation delays”⁹ 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 2022, five MYAs for HCFC phase-out management plans (HPMPs) and one HCFC production phase-out management plan (HPPMP) were under implementation. Since 1991, 40 MYAs have been approved and 34 MYAs have been completed, representing a completion rate of 85 per cent.

9. Table 3 summarized 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 ₂ -eq tonnes		Consumption	Production	Approved	Completed	Investment	Non-investment		Approved	Completed
336,226	0	1,158,642,094	5.45	4.78	1,107	1,081	40	35	11	40	34

*Consumption and production

HFC-related projects

10. As of 31 December 2022, the Executive Committee had approved five HFC preparation projects under regular contributions amounting to US \$665,000 (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
Project preparation	5	0	0	665,000	141,971	523,029	21

* Excludes agency support costs.

11. Of the total cumulative funding approved of US \$665,000, US \$141,971 had been disbursed, representing a disbursement rate of 21 per cent. The five ongoing preparation activities are expected to be completed in 2023 and 2024.

⁹ 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).

I.2 Issues identified in project implementation in 2022

12. Further to the review process, several issues were discussed and satisfactorily addressed, except for issues on four 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 94th meeting.

13. Details of progress in implementation of projects associated with the HPMPs for China (polyurethane foam sector plan)¹⁰ and Viet Nam¹¹ have been submitted to the 93rd meeting. Recommendations for outstanding issues for these projects, including approval of extension requests, if any, are addressed in the relevant sections of those documents. 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 15 ongoing projects, excluding IS and project preparation, seven projects have revised planned dates of completion since the 2021 progress report.

15. In line with decision 82/11(b),¹² the World Bank has requested the extension of the duration of three projects, as shown in table 5.

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

Country/ project code	Project title	Disburse- ment (%)	Status/issues	Original date of completion	Date of completion requested
Jordan JOR/PHA/77/INV/99	HCFC phase-out management plan (stage II, first tranche) (polyurethane foam sector)	86	Additional time required for completing the procurement and distribution of low-global-warming-potential pre-blended polyol to foam enterprises; these activities were delayed due to challenges related to the COVID-19 pandemic and supply challenges due to small quantities needed in the country.	Dec-23	Dec-24
Jordan JOR/PHA/84/INV/108	HCFC phase-out management plan (stage II, second tranche) (polyurethane foam sector, project management and coordination)	27			
Jordan JOR/PHA/88/PRP/110	HCFC phase-out management plan (stage II, third tranche)	0			

Gender mainstreaming¹³

16. The World Bank reported that in 2022, two countries were reporting on gender mainstreaming: China (stage II of the HPMP (polyurethane rigid foam sector plan) and HPPMP); and Malaysia (preparation of the Kigali HFC implementation plan (KIP)).

17. For the projects in China, gender balance in meetings and activities is now being tracked. In the training organised by the Foreign Environmental Cooperation Centre in China on stage II sub-project

¹⁰ UNEP/OzL.Pro/ExCom/93/47

¹¹ UNEP/OzL.Pro/ExCom/93/93

¹² 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.

¹³ 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)).

implementation, about 50 per cent of the participants were women. Further, 40 per cent of individuals in charge of each sub-project at the enterprise level are women. In the case of Malaysia, data on the number of female employees is collected during the KIP surveys.

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

18. As of 31 December 2022, the Executive Committee had approved five HFC-related projects under the additional voluntary contributions amounting to US \$960,180 (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 2022

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	746,666	744,080	2,586	99.7
Total	5	5	100	960,180	957,594	2,586	99.7

* Excludes transferred projects.

** Excludes agency support costs.

*** 8.8 mt (12,555 CO₂-eq tonnes) of HFCs was approved and phased out.

19. As of the end of 2022, all five activities approved had been completed.

20. Of the total cumulative funding approved of US \$960,180, US \$957,594 had been disbursed, representing a disbursement rate of 99.7 per cent.

III. Recommendation

21. The Executive Committee may wish:

- (a) To note the progress report of the World Bank as at 31 December 2022 contained in document UNEP/OzL.Pro/ExCom/93/19;
- (b) To approve the extension, to 31 December 2024, of the completion date of stage II of the HCFC phase-out management plan for Jordan (first tranche (polyurethane foam sector) (JOR/PHA/77/INV/99), second tranche (polyurethane foam sector, project management and coordination) (JOR/PHA/84/INV/108) and third tranche (JOR/PHA/88/PRP/110)), to allow for completion of the remaining ongoing activities as reflected in table 5 of document UNEP/OzL.Pro/ExCom/93/19; 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 2022**

1. Table 1 of annex I presents the status of project implementation by country for 2022 in achieved phased out, planned and achieved disbursements and project completion.

Table 1. Status of project implementation by the World Bank for 2022

Country	Phased out in 2022 (ODP tonnes)*	Phased out in 2022 (CO ₂ -eq tonnes)*	Estimated funds disbursed in 2022 (US\$)	Funds disbursed in 2022 (US\$)	Percentage of funds disbursed over estimation in 2022	Percentage of planned projects completed in 2022**
China	0	0	5,000,000	5,800,000	116	50
Indonesia	0	0	600,000	275,491	46	0
Jordan	0	0	404,600	360,777	89	0
Malaysia	0	0	140,000	100,896	72	0
Thailand	0	0	1,148,175	409,875	36	0
Viet Nam	0	0	1,408,859	873,487	62	0
Global***						100
Grand total	0	0	8,701,634	7,820,526	90	20

* No phase-out in 2022.

** For projects that were planned to be completed in 2022.

*** 2022 core unit.

Annex II

**OVERVIEW OF STATUS OF PROJECT IMPLEMENTATION FOR THE WORLD BANK
PER YEAR AS AT 31 DECEMBER 2022**

1. Table 1 of annex II presents an overview of the status of project implementation by year.¹ All projects and activities approved between 1991 and 2015, and 2017, 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	44,201,956	0	100
2012	10	10	100	11,698,145	11,698,145	0	100
2013	7	7	100	43,736,999	43,736,999	0	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	12,527,501	74,131	99
2017	3	3	100	1,651,291	1,651,291	0	100
2018	7	1	14	26,408,870	24,797,653	1,611,217	94
2019	3	1	33	2,579,179	1,655,518	923,661	64
2020	2	1	50	2,067,012	2,067,012	0	100
2021	9	1	11	9,687,863	2,949,865	6,737,998	30
2022	8	0	0	23,593,422	0	23,593,422	0
Total	1,107	1,081	98	1,191,582,522	1,158,642,094	32,940,428	97

*Excludes closed and transferred projects.

**Excludes agency support costs.

¹ 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/CO₂-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**

Country/project code	Project title	Disbursement (%)	Status/Issues	Recommendation
Indonesia IDS/PHA/81/INV/214	HCFC phase-out management plan (stage II, second tranche) (foam sector)	80	12 months delays	To request the World Bank to report to the 94 th meeting on this project with implementation delays
Jordan JOR/PHA/77/INV/99	HCFC phase-out management plan (stage II, first tranche) (polyurethane foam sector)	86	12 months delays	To request the World Bank to report to the 94 th meeting on this project with implementation delays
Thailand THA/PHA/82/INV/179	HCFC phase-out management plan (stage II, first tranche) (spray foam sector)	6	12 months delays	To request the World Bank to report to the 94 th meeting on this project with implementation delays
Thailand THA/PHA/82/TAS/177	HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector and project management unit)	31	12 months delays	To request the World Bank to report to the 94 th meeting on this project with implementation delays



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ANNUAL
PROGRESS REPORT

BANK-IMPLEMENTED
MONTREAL PROTOCOL OPERATIONS

January - December 2022

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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 2022. 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\$1.15 billion. Six new approvals by the MLF have increased the cumulative number of project activities approved to a net 1,105 (excluding transfers and closed activities). The number of ongoing multi-year projects in the Bank's portfolio, all HCFC phaseout projects, is at five total by end 2022.

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 90% given that the target set in the Bank's 2021 Progress Report was US\$8.7million but actual disbursement only reached US\$7.83 million.

3. In 2022, three annual plans were submitted out of four targeted in the approved table of 2022 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 6,045 ODP MT as compared to 5,362.5 ODP MT set. There was no actual phaseout in the 2022 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 2022. The target set by the Secretariat for the Bank's 2021 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 2022. The 2022 Progress Report was submitted on time and 100% of 2022 project activities that completed financially were done so within 12 months. More project completion reports (PCRs) were submitted in 2022 than required per project completions in the project completion reporting period.

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 2022 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	#DIV/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	#DIV/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	#DIV/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	12,527,501	99%	74,131	74,131	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	1	14%	33	0	0%	0	1,188	#DIV/0!	26,408,870	24,797,653	94%	1,611,217	1,114,991	3,261,620	-43,894
2019	3	1	33%	19	0	0%	0	0	0%	2,579,179	1,655,518	64%	923,661	923,661	1,958,493	-486,154
2020	2	1	50%	809	809	100%	0	0	0%	2,067,012	2,067,012	100%	0	0	1,879,691	-260,155
2021	7	1	14%	1,930	0	0%	0	0	0%	9,687,863	2,949,865	30%	6,737,998	4,984,882	2,413,150	0
2022	8	0	0%	98	0	0%	5,947	0	0%	23,593,422	0	0%	23,593,422	11,031,061	3,078,735	0
Total	1,105	1,081	98%	136,242	148,230	109%	177,139	187,996	106%	1,191,582,522	1,158,642,094	97%	32,940,428	18,128,725	132,321,287	-7,356,566
*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\$1,174,331,985. 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	48	94%	10,258,378	-244,662	9,413,540	94%	600,176	156,441
Investment Projects	640	627	98%	1,174,331,985	-41,970,240	1,099,156,767	97%	33,204,978	17,207,714
Project Preparation	297	291	98%	35,445,595	-8,002,275	26,765,291	98%	678,029	390,925
Technical Assistance Projects	76	74	97%	17,147,529	-3,490,187	15,200,097	111%	-1,542,755	373,645
Training Projects	4	4	100%	1,193,246	-887,480	305,766	100%	0	0
GRAND TOTAL	1,105	1,081	98%	1,252,200,403	-60,617,881	1,158,642,094	97%	32,940,428	18,128,725

*Excludes Closed and Transferred Projects.

C. Multi-year Agreements

7. A total of 42 multi-year projects have been approved for the World Bank as a Multilateral Fund Implementing Agency (IA) as of the end of 2022 including one (the China Stage II HCFC Production Phaseout Management Plan) whose agreement was approved at the 87th Meeting of the Executive Committee. Three of the 42 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 31 of the 42 multi-year projects (including national and sector plans), the World Bank was, and continues to be a Cooperating Agency in China and Indonesia, for two ongoing multi-year projects with UNDP as the Lead Agency. The total value of Stage I HCFC Phase-out Management Plans (HPMPs) and sector plans in the Bank's portfolio was more than US\$206 million, excluding returns and transfers. 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 well into the second phase of HPMP implementation with ongoing implementation of two Stage II HPMPs in Jordan and Vietnam and two Stage II foam sector plans in China and Indonesia (approved in 2016), the Stage II HPMP in Thailand (approved in 2018), as well as the China Stage II HCFC Production Phase-out Management Plan (HPPMP) approved at the 86th Executive Committee meeting. Three multi-year projects target HCFC-141b consumption and/or use in imported pre-blended polyol, one (the Vietnam Stage II HPMP) is the first to introduce HCFC-phase-out activities in the commercial and industrial refrigeration sectors, and also addresses air-conditioning manufacturing. The Thailand HPMP is addressing remaining HCFC-141b consumption in spray foam as well as tackling the servicing sector.

11. There are six ongoing multi-year activities in the World Bank's active HCFC phase-out portfolio worth a total US\$143 million as of the end of the 91st Meeting of the Executive Committee. At the 84th 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 86th 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 HPPMP at a total \$67 million including \$23 million already released in 2018 as bridging funds.

12. In 2022, three tranche implementation progress reports were approved for the second tranche of the Stage II HCFC production phase-out management plan China, the third tranche of the Stage II HCFC phase-out management plan in Jordan, and the fourth tranche of the Stage II HCFC phase-out management plan for Vietnam, cumulatively worth a total US\$ 23.25 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\$23.25 million.

13. All World Bank partner countries currently implementing multi-year projects appear to have met their annual consumption and production targets for the 2022 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 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 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*
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	-	-	-	-	-
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	1,500,000	294,277	20.4	400	281			
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 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*
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	-	-
Vietnam	National CFC and halon phase-out plan	Apr-05	Dec-10	1,260,000	1,260,000	1,259,448	258.69	-	-	-	-	-
Vietnam	National phase-out plan for methyl bromide	Nov-06	Dec-14	1,098,284	1,098,284	1,098,284	85.20	-	-	-	-	-
Vietnam	HCFC phaseout mgmt plan (stage I, first tranche) (foam sector plan)	Apr-11	Jun-17	9,125,020	9,125,020	8,205,602	140.10	-	-	-	-	-
Vietnam	HCFC phase-out management plan (stage II, first tranche)	May-16		7,068,028	7,068,028	2,948,841	37.7	143.78	141.62	-	-	-

*2022

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 was one project completed during this reporting period (January 1, 2022 to December 31, 2022), in addition to the 2022 core unit budget, which is highlighted in Table II-1 below.

A. ODP Phased Out Since Last Report

18. There were two investment project completions in 2022, the Conversion from HFC to propane (R-290) and isobutene (R-600a) in Thailand and the HCFC phase-out management plan (stage II, first tranche) for polyurethane rigid foam sector in Vietnam. The HCFC phase-out management plan in Vietnam is part of the HCFC Phaseout Management Plan (HPMP) and therefore while activities under the tranche have been completed, the project is not financially completed. China received approval of its third tranche of the Stage II PU foam sector plan, the phase-out achieved through the first tranche can be claimed at 808.9 ODP MT

B. Non-Investment Project Completions Since Last Report

19. Country Programs: There were no new completions in 2022 for country programs.

20. Technical Assistance: There were no new completions in 2022 for stand-alone technical assistance (TA) projects.

21. Training: The World Bank did not hold its annual East Asia regional workshop in 2022 as it was decided to hold the workshop in person when all country clients could travel (by early 2023).

22. The World Bank did not hold its annual Climate Ozone & Operational Linkages (CO₃OL) workshop in 2022, but plans are in place to hold this 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, first tranche) (polyurethane rigid foam sector plan)	China	ASP	675.1	Dec-16	Ocr-19	Sep-22	Dec-22	7,045,027	0	7,045,027	100%	0	0

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 76th 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\$1 million 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 80th 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 71st 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 80th Meeting of the Executive Committee.

28. At its 77th 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 2022 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 2022 Business Plan. Actual number of tranches submitted was 3 associated with existing MYAs (China Stage II HPMP – PU Foam, Jordan Stage II HPMP, and Vietnam Stage II HPMP, which were approved at the 91st meeting. The approval target was therefore met by 75% using the original target set by the Secretariat as reflected in Decision 88/27. 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 2022, four individual activities were submitted to the Executive Committee and approved. These include three preparation of HFC investment projects in Malaysia and Vietnam’s preparation of an HCFC phase-out management plan - Stage III, approved at the 91st meeting.

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 Secretariat set the targeted ODP tonnes of phaseout in 2022 at 5,362.5 ODP MT which is the planned phase-out for tranches of approved *and not yet approved* MYAs.

34. The Bank noted that the intent of Dec. 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.

36. For 2022, the World Bank, was, however, able to meet the target set for this implementation indicator with 6,045 ODP tons approved through three 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 4 based on the 2021 Progress Report. In 2022, two activities reached completion (the China HCFC Phase-out Plan Stage II and the 2021 core unit budget Eight other activities are set to be completed in 2023.

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 2021 Business Plan. In 2022, 1 project activity was financially completed within 12 months. The core unit budget for 2021 which closed in December 2021 was also financially complete within 12 months by December 2022. Thus, the target was achieved.

39. The Bank committed to submit 100 percent of PCRs for projects completed in the 2022 PCR reporting period. In the 2022 PCR reporting period (July 2021-June 2022), there was 1 project completion for the Thailand Conversion from HFC to Propane (R-290) and/or Isobutane (R-600a) as refrigerant in manufacturing commercial refrigeration appliances in Pattana Intercool Co., Ltd. The Project completion report was submitted in October 2022. Additional guidance received by the Executive Committee is that the implementing agencies submit outstanding PCRs for MYAs and individual projects which is why the Bank made efforts to submit additional PCRs than those due per projects that completed. In 2022, the World Bank submitted a total of five PCRs, including three MYA PCRs and two PCRs for individual projects. The Bank's PCR submission goal for 2022 was consequently met.

40. The third and final administrative performance target of on-time submission of the 2022 Progress Report was met with submission by September 8, 2023. Table IV-1 summarizes the World Bank's performance relative to indicators per Decision 88/27 on the Bank's 2022 Business Plan.

Table IV-1: World Bank Performance Goals

Category of Performance Indicator	Item	Weighting	2022 Target*	2022 Actual
Planning/Approval	Number of tranches approved vs. those planned	10	4	3
Planning/Approval	Number of projects/activities approved vs. those planned (including project preparation activities)	10	4	5
Implementation	Funds disbursed (based on estimated disbursement in progress report)	15	US \$5,060,187	US \$7,832,700
Implementation	ODS phased-out for the tranche when the next tranche is approved vs. those planned per business plans	25	5,362.5 ODP tonnes	6,045 ODP tonnes
Implementation	Project completion vs. that planned in progress reports for all activities	20	4	1
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 (5)	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

** The Secretariat set the target using the 2020 Progress Report – meaning the estimated disbursement for 2020, i.e. \$5.06 million, however the final submitted 2021 Progress Report estimated disbursement for 2021 – the year of this progress report to be \$8.7 million.

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	Overall
Delivery Speed	First Disb.	Mos.	27	11	12	6	4	18	9	24	0	12	5	8	19
	Last Disb.	Mos.	0	0	0	0	0	0	4	0	0	0	21	38	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	21

41. There are six (6) ongoing project preparations with US\$755,000 approved funding. A total of US\$141,971 was disbursed from these project to-date in 2022, with US\$390,925 projected to be disbursed in 2023. Hence the cost of project preparation in 2022 is US\$141,971. 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. Three investment project activities (tranches) were approved in 2022, worth US \$23.24 million (excluding support costs) consisting of the second tranche of a Stage II HCFC phase-out management plan in China for production sector, the third tranche of a Stage II HCFC phase-out management plan in Jordan for the foam sector, and the fourth tranche of a Stage II HCFC phase-out management plan in Vietnam for refrigeration servicing, technical assistance and project implementation and monitoring. The average cost-effectiveness value of the activities approved in 2022 is US\$3.85, 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, three countries received approvals in 2022 (release of three tranches).

43. The Bank had no 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 627, resulting in the reduction in consumption of 144,640 tonnes ODP and in production of 186,808 tonnes ODP. Out of a total of US\$1,066,462,403 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\$3.22/kg. These averages include projects both before and after initiation of the umbrella grant agreement approval process.

45. One investment project activity was completed in 2022. Table IV-3 which follows provides a summary of completed investment projects at both a regional and sectoral level.

Table IV-3: Cumulative Completed Investment Projects

Item	Number of Projects	Approved Funds plus Adjustment (US \$)	Per Cent of Funds Disbursed	Consumption Phased Out**	Production Phased Out**	Average Number of Months from Approval to First Disbursement	Average Number of Months from Approval to Completion	Overall Cost-Effectiveness to the Fund (US\$/kg.)
GRAND TOTAL	627	1,066,462,403	100%	144,640	186,808	24	40	\$3.22
Region								
Africa	18	4,874,765	100%	777	0	25	49	\$6.27
Asia & Pacific	463	956,812,122	100%	136,579	179,388	23	41	\$3.03
Europe	36	25,729,361	100%	3,498	0	12	20	\$7.36
Latin America and Caribbean	110	79,046,154	100%	3,787	7,420	30	44	\$7.05
Global	n/a	0	0%	0	0	n/a	n/a	n/a
Sector								
Aerosol	32	22,107,868	100%	20,290	0	27	48	\$1.09
Destruction	0	0	0%	0	0	n/a	n/a	n/a
Fire fighting	0	0	0%	0	0	n/a	n/a	n/a
Foam	213	129,688,082	100%	29,594	0	25	42	\$4.38
Fumigants	11	4,208,461	100%	444	0	18	49	\$9.47
Halon	19	68,345,321	100%	38,439	41,958	19	34	\$0.85
HFC phase-down plan	0	0	0%	0	0	n/a	n/a	n/a
Multiple sectors*	4	2,287,376	100%	419	0	28	78	\$5.46
Other	2	5,059,360	100%	404	0	28	41	\$12.52
Phase-out plan	77	187,080,757	99%	22,710	10,988	22	39	\$5.55
Process agent	15	113,830,316	100%	18,663	52,162	8	18	\$1.61
Production	44	354,642,514	100%	0	81,700	10	15	\$4.34
Refrigeration	180	168,890,481	100%	13,075	0	27	47	\$12.92
Solvents	28	9,660,640	100%	562	0	29	27	\$17.18
Sterilant	2	661,227	100%	41	0	16	27	\$16.29
Implementation Characteristics								
Agency Implementation	1	997,959	113%	19	0	29	101	\$52.80
National Implementation	626	1,065,464,444	100%	144,621	186,808	24	40	\$3.21
Disbursement Method								
During Implementation	577	879,388,863	100%	140,459	182,838	24	41	\$2.72
After Implementation	25	11,189,562	100%	1,040	0	32	29	\$10.76
Retroactive Funding	15	7,143,226	100%	851	0	23	1	\$8.40
Country to Final Beneficiaries	10	168,740,752	100%	2,290	3,970	13	57	\$26.95

* No funds are listed for the multiple sector investment project but are recorded in appropriate sector.

** Total phased out for the Fund is ____ includes ____ from completed non-investment projects and ____ from ongoing projects.

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

C. Cumulative Completed Non-Investment Projects

46. Since 1991, the World Bank's cumulative total of completed non-investment projects has grown to 163. Out of a total of US\$29,866,931 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
GRAND TOTAL	163	29,866,931	107%	22	35
Region					
Africa	17	2,865,298	100%	24	31
Asia & Pacific	70	17,992,508	112%	18	39
Europe	9	1,632,528	100%	29	43
Latin America and Caribbean	35	4,477,970	100%	27	44
Global	32	2,898,628	100%	22	18
Sector					
Aerosol	5	627,662	100%	17	26
Destruction	1	250,000	100%	17	22
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	118	12,283,669	100%	14	25
Solvents	0	0	0%	n/a	n/a
Sterilant	0	0	0%	n/a	n/a
Implementation Characteristics					
Agency Implementation	69	3,506,757	100%	10	15
National Implementation	94	26,360,175	108%	25	50
Disbursement Method					
During Implementation	161	28,865,501	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 13 (including tranches of multi-year agreements). Out of a total of US\$62,152,776 of approved Multilateral Fund financing, 50 percent of funds has been disbursed. The average number of months from approval to first disbursement has been 13, the average number of months from approval to the current expected completion date is 43, with an average cost-effectiveness of US\$7.03/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 Dis-bursed	Number of Projects Disburs-ing	Per Cent of Projects Disburs-ing	Estimated Disbursement plus Funds Disbursed	Per Cent Funds Expected to be Disbursed by End of 2004	Average Number of Months from Approval to First Disburse-ment	Average Number of Months from Approval to Planned Completion	Avg Length of Delay in Project Planned Completion	Overall Cost-Effective-ness to the Fund (US\$/kg.)*
GRAND TOTAL	13	62,152,776	50%	10	77%	48,260,190	78%	13	43	23	\$7.03
Region											
Africa	0	0	0%	0	0%	0	0%	0	n/a	n/a	n/a
Asia & Pacific	13	62,152,776	50%	10	77%	48,260,190	78%	13	43	23	\$7.03
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
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	0	0	0%	0	0%	0	0%	n/a	n/a	n/a	n/a
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	17,155,563	47%	9	82%	15,260,190	89%	13	42	20	\$5.93
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%	33,000,000	73%	16	52	49	\$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	0	0	0%	0	0%	0	0%	n/a	n/a	n/a	n/a
National Implementation	13	62,152,776	50%	10	77%	48,260,190	78%	13	43	23	\$7.03
Disbursement Method											
During Implementation	7	9,842,342	40%	7	100%	8,309,117	84%	16	51	20	\$101.68
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	6	52,310,434	52%	3	50%	39,951,073	76%	8	33	49	\$5.98
Note: The sum of each section (Region, Sector, etc.) equals the Grand Total.											
*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\$1,890,526 of approved Multilateral Fund financing, 39 percent of funds has been disbursed. The average number of months from approval to first disbursement has been 21; the average number of months from the date of approval to the current expected completion date is 43. This excludes HFC enabling activities. Two HFC enabling activities were completed in 2022, valued at \$250,000 each. About 64 percent of approved enabling funds were disbursed in the reporting year.

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
GRAND TOTAL	5	1,890,526	39%	3	60%	1,258,513	67%	21	43	19
Region										
Africa	0	0	0%	0	0%	0	0%	n/a	n/a	n/a
Asia & Pacific	4	1,890,526	39%	3	75%	1,258,513	67%	21	51	24
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	12	n/a
Sector										
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
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	31%	1	100%	626,192	77%	26	60	24
Process agent	0	0	0%	0	0%	0	0%	n/a	n/a	n/a
Production	0	0	0%	0	0%	0	0%	n/a	n/a	n/a
Refrigeration	0	0	0%	0	0%	0	0%	n/a	n/a	n/a
Severals	4	1,076,056	44%	2	50%	632,321	59%	19	39	18
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
Implementation Characteristics										
Agency Implementation	1	0	0%	0	0%	0	0%	n/a	12	n/a
National Implementation	4	1,890,526	39%	3	75%	1,258,513	67%	21	51	24
Disbursement Method										
During Implementation	5	1,890,526	39%	3	60%	1,258,513	67%	21	43	19
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 Vietnam 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 HPPMP 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 HPPMP, 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 Vietnam, the GA negotiations between the State Bank of Vietnam 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 Vietnam, the GA provides for retroactive funding of activities implemented between Bank appraisal and GA effectiveness.

56. The World Bank Preparation of Kigali HFC Implementation Plan (KIP) in Malaysia was newly approved in July 2021. The funding was made available to the World Bank in late 2021.

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

57. In 2022, there were two active World Bank project preparation activities. The Preparation of Kigali HFC implementation plan in Malaysia with US \$220,000 in approved funds and US \$100,896 in disbursements, and the Preparation of Kigali HFC implementation plan in Vietnam with US \$185,000 in approved funds US \$41,075 in disbursements. Four additional preparation plans were approved in December 2022.

VI. GENDER MAINSTREAMING

58. This section on Gender mainstreaming is included in the progress report for the first time based on decision 90/48(d). In 2022, three (3) projects in two (2) countries are reporting on gender mainstreaming: HCFC phase-out management plan (stage II, second tranche) in China, HCFC phase-out management plan (stage II, third tranche) in China, and the Malaysia Preparation of Kigali HFC implementation plan.

59. The second and third tranches of HCFC phase-out management plan (stage II) (polyurethane rigid foam sector plan) in China have reported that Gender balance in meetings and activities is now being tracked. FECO organized a subproject implementation training meeting at the beginning of these individual, phaseout subprojects (second batch of Stage II). About 50% of the participants were females. In terms of persons in charge of each subproject at the enterprise level, about 40% are females. Finally for the Malaysia Preparation of Kigali HFC implementation plan, surveyed enterprises were asked to include percentage of female employees in questionnaires.

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

A. Meetings Attended

60. Table VI.1 indicates the meetings attended by World Bank Staff on all Montreal Protocol related work in 2022.

Table VI-I: MP Related Events Attended by World Bank Staff in 2022

2022 Dates	Location	Meetings Attended
March 31 – April 1, 2022	Virtual	Inter-agency Coordination Meeting (IACM)
April 27, 2022	Virtual	Joint Virtual Meeting of National Ozone Officers from South-Asia, Southeast-Asia, and Pacific Island Countries Networks
May 16, 18 and 20, 2022	Virtual	89 th ExCom Meeting, Part I
June 16 – 18, 2022	Montreal	89 th ExCom Meeting, Part II
June 20 – 23, 2022	Montreal	90 th ExCom Meeting
July 9, 2022	Bangkok	68 th Implementation Committee Meeting
July 14 – 16, 2022	Bangkok	44 th meeting of the Open-ended Working Group (OEWG)
July 17-19, 2022	Bangkok	Joint Meeting of National Ozone Officers from South-Asia, Southeast-Asia, and Pacific Island Countries Networks
September 20-22, 2022	Montreal	Inter-agency Coordination Meeting (IACM)
October 3-5, 2022	Chiang Mai	Joint Meeting of the South Asia and Southeast Asia Networks of National Ozone Officers
October 29, 2022	Montreal	69 th Implementation Committee Meeting
October 31 – November 4, 2022	Montreal	12 th COP – 34th MOP
December 5-9, 2022	Montreal	91 st Executive Committee Meeting

B. Implementing Agency and Other Cooperation

61. 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.

62. 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. It successfully delivered technical assistance to address technical and regulatory barriers to the introduction of HFC-32 technology in residential air-conditioner manufacturing. It 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. Eleven enterprises in total benefitted from this support and have been employing HFC-32 in AC manufacturing without problems since 2017.

63. In 2016, building on the good collaboration and achievements in Thailand, Japan, Vietnam, and the World Bank agreed on similar cooperation in Vietnam's AC sector under the Stage II HPMP. Vietnam's Stage II HPMP includes a TA component directed towards AC manufacturers that aim to shift HCFC-22 based production to HFC-32 based production. Japan continued to work closely with the Bank in 2019 to finalize arrangements for delivery of the TA. Given delays in effectiveness of the GA between Vietnam and the World Bank, the work commenced in 2020.

64. 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 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.

65. 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

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

Annex I

COUNTRY DEVELOPMENTS

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 \$23 million.
2. The overall Grant Agreement of the China-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 this Stage II Project, a total of 11 subprojects were under implementation at the start of 2020 by project beneficiaries. As of end of 2022, 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 \$8 million. With completion of the 9th subproject in May 22 and the final two subprojects in September 2022, all activities associated with the 11 enterprises/subgrant agreements (SGAs) and TA that were associated with first Tranche have been physically completed. Twelve additional SGAs were signed with the second round of enterprises between 10-13 Jun 2022 worth a total \$4.9 million for the phaseout of 1,068 MT of HCFC-141b. Thirty percent of contract value has been disbursed at the time of signing and implementation is now ongoing, with 3 companies converting to hydrocarbon, 3 to HFOs and the rest to water blown technology. The system house project approach is in the final stages of preparation and will be launched in late 2023 or early 2024. About 20 potential foam system house candidates have been identified for participating in system house project
4. The third funding tranche was approved in November 2021 at the 88th ExCom and will support subprojects at 12 enterprises. Subproject proposals have been prepared and appraised. Most foam TA contracts are to be supported by future funding tranches although FECO is currently implementing a number of 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. FECO continues to put efforts into planning and consulting on how to design the implementation approach for the system houses projects that are expected to partially make-up for phase-out normally achieved through individual subprojects. For the third funding tranche, FECO has agreed to assess cash flow demands so that as much resources as possible from this and the next funding tranche can be allocated to the SH/SME modality and to TA.

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 HPPMP, 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 HPPMP Stage II with HCFCs ODS and feedstock producers were held in 2021. On-line independent verification confirmed that the 2019, 2020 and 2021 HCFC production were within the limit given by the HPPMP agreement. All 2018 quota reduction and closure activities have been completed, and funding has been disbursed. All initiated TA activities have been completed.
8. Between January and June 2023, a report on the investigation on HCFCs dealers for the year 2020-2021 was completed and submitted to 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. Since approval, activities started without delay; all 2022 and 2023 HCFC production quotas issued to HCFC producers to ensure reduction targets are met. On-site independent verification of 2022 HCFC production are ongoing and expected to be completed by Oct 2023. FECO has signed HCFC-141b production quota reduction contract with Changshu 3F Fluorochemical Industry and closures contract with Zhejiang Juhua Electrochemical Plant.

INDONESIA

A. Country Developments

10. The Stage I HCFC foam sector plan completed implementation in December 2019.
11. The Stage II HCFC foam sector plan is well into implementation. One company, PT Wijaya Karya (WIKYA) completed its technology conversion on May 20th, 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 28th, 2022. PT Mitra Lestari Bumi Abadi (MILBA) signed a FTRA on December 17th, 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.
12. 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.
13. 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 Polyurethan Foam Sector Plan Project”.
14. 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 VS (in November and December 2021) was successful. The VS were fully operational in 2022, involving more than 200 small scale enterprises. By Dec 2022, VS has contributed to approximately 116 MT phase out of HCFC 141b.

15. The review of implementation of the voucher scheme was concluded April 18th, 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 3rd, 2022, and valid until December 31st, 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 23, VS has contributed to phase out of 78 MT HCFC 141b. Other activities are monitoring and evaluation for completed beneficiaries as well as voucher scheme distribution. Additional activities are preparing Project Completion Report and outreach material.

16. For the Enabling activities for HFC phase-down, the project was closed June 30th, 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

17. 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.

18. 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 tons). 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.

19. 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.

20. In 2022, five foam enterprises with signed SGAs (Abu Haltam, Al Safa, Jordan Pioneer, Prefabricated Building, and Yousef Workshop) had completed installation of foam equipment, met all safety requirements to use cyclopentane from Civil Defense Directorate, and started commercial production. The Government of Jordan had contracted one foam supplier to provide small quantities of water- and HFO-based foam materials to small and medium foam enterprises for testing purposes. If the samples meet the performance requirements, GoJ will expand the procurement in 2023 for commercial production. Two technical staff were recruited to the PMU to assist in the implementation of stage II HPMP.
21. 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.
22. The Government of Jordan is seeking extension of the tranche until Dec 2023 in line with the planned approach to complete installation of foam equipment and assistance to SMEs.
23. The third tranche of the Stage II HCFC phase-out management plan for Jordan is newly approved in Dec 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. It is expected that the first batch to be delivered to SMEs starting July 2023.
24. Stage III of the Preparation of HCFC phase-out management plan was newly approved in December 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 Dec 2021, and based on 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

25. 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.

26. 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. The NOU was able to organize regular public meetings and workshops for the national stakeholders after continued improvement in COVID-19 pandemic situation and lifting of Government's restrictions. Additionally, the NOU participated in the 44th OEWG meeting in Bangkok in July 2022 in person. In 2022, the NOU compiled and submitted the 2021 Country Programme to the Multilateral Fund Secretariat and 2021 Article 7 data to the Ozone Secretariat by their respective deadlines. 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

27. 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.

28. 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 2019-21 was completed in Sep 2022, followed by focus-group and sector consultations. The data validation was completed between Aug-Nov 2022. The World Bank conducted technical, KIP preparation missions in Jul and late Nov 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 Dept of Environment and the WB in Dec 2022.

29. Consulting firm's draft KIP report was submitted to DOE and the WB in Jan 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 Mar 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 Apr 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 Aug 2023. KIP to be submitted on 21 Aug 2023 after OORG technical review.

30. Three Preparation of HFC investment projects (in firefighting sector, mobile air-conditioning sector, refrigeration manufacturing sector) were approved in Dec 2022 with the funding made available to the WB only in Mar 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 visits, email and meetings. Half-day sector consultation with the fire suppression industry and regulators (BOMBA) held on 1 Mar 2023, prior to the national stakeholder workshop. Draft fire suppression sector plan with costing completed by end-Apr 2023. Additional data to be collected and verified; additional consultations expected for finalization. For the Preparation of HFC investment projects in mobile air-conditioning sector, planned beneficiary enterprise visited at each of its two plants by international and local consultants, data collected and exchanged, virtual meetings held, and draft project prepared. Finally, for the Preparation of HFC investment projects in refrigeration manufacturing sector, planned beneficiary enterprises visited twice (either each of two plants or twice at one plant) by international and local consultants, data collected and exchanged, virtual meetings held, and draft projects prepared.

THAILAND

A. Country Developments

31. 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 20 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 countersigned in August 2020 and became effective in October 2020.

32. 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 tons). DIW confirmed interest of all major eligible spray foam enterprises to participate in the project. Preparation of six subproject proposals was initiated in 2022 with a total funding requirement of \$1 million. One subgrant agreement (SGA) worth \$103,370 was signed in Sep 2022 and another subproject proposal worth \$77,330 was in the final stages of appraisal. Both enterprises have chosen HFO-1336mzz(Z) alternative. In 2022, DIW worked in parallel with polyol suppliers to determine an approach for support to the remaining, smaller spray foam companies. Activities related to small spray foam companies will be financed from the next funding tranche planned for approval at the 92nd ExCom. Delivery of 72 sets of training equipment (worth \$225,640) for AC service technicians for six training centers each to OVEC and DSD, completed by mid-2022. Training costs agreed with & provided to OVEC and DSD. These resources used in 2022 to support the training of 720 training sessions. Due to the delay caused by COVID-19, DIW, OVEC and DSD agreed to procurement of additional training equipment to allow more sessions to be hosted before the completion of the project. Technician training target also reduced due to COVID from 5,500 to 4,500.

33. During the first half of 2023, the first SGA worth \$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 \$77,330, \$116,140, and \$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 Sep 23. Hands-on training on reduced-HFO formulation via main system houses also planned by Sep 23. 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. 2022 consumption verification indicates that Thailand has met 2022 targets. Second funding tranche for the Stage II HPMP approved in Jun. 23 at the 92nd ExCom. Solvent sector workshop on non-HCFC-141b alternatives is planned for Sep. 23.

34. Activities related to Thailand's HFC enabling activity have been completed. The terms of reference for conducting enabling activities for Kigali ratification were prepared in 2019 and a consultant was selected in October 2019 to collect 2016, 2017 and 2018 HFC consumption data; validate, supplement and reconcile import data of major HFCs from Customs; review the relevant regulatory framework; and, determine future HFC alternatives' availability and costs. Work was begun by the end of the year. Decision. 83/40 extended the completion date to June 2020. Due to COVID-19, the enabling activity work has been delayed, with the consulting firm and the WB team not able to travel to Thailand to lead consultations. In August 2020, a stakeholder workshop was held (in person in Thailand and virtual for the consultant and WB). Consultant draft report with HFC data updates submitted in October 2020.

35. 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.

36. HFC phasedown strategy work was completed and with the Government of Thailand. Government has put into place policies on HFC licensing in early 2022. Enabling activity completed financially by June 2022. The final HFC phasedown proposal and recommendation is being posted for public comments until end of July 2022. DIW plans to submit the recommendation for ratification to the Cabinet by last quarter of 2022.

37. 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 Dec 2021 to include date of disposal of baseline equipment and cessation of HFC-134a use on the line (although conversion itself completed in Mar). 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

38. 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.

39. 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.

40. 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 43rd OEWG and 33rd 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.

41. Activities completed between January and June 2022, included putting into place policy/regulation on the HFC licensing and quota system since early January 2022 and completing the 2021 country program reporting by the May 2022 deadline. The Thailand delegation attended the 44th OEWG Meeting in Bangkok and the 35th MOP in Montreal. Ozone Day celebrations held in 2022 and HCFC consumption monitoring continued as permitted with COVID-19 restrictions which were loosened by the 2nd quarter of 2022. On the admin side, the NOU still is in the process of filling two positions for a technical and data officer and public outreach officer. NOU hosted a World Bank mid-term mission in May and another implementation support mission in Oct 2022.

VIETNAM

A. Country Developments

42. The Preparation of Kigali HFC Implementation Plan for Vietnam was newly approved in December 2021. Between January and June 2022, the overall terms of reference were prepared, coordination meetings were held with Government of Vietnam and UNEP. Additionally, the TOR for a consulting firm for the data collection, analysis, policy and technology review were completed and selection is expected by July 2022. Data to be collected and compiled by early fourth quarter of 2022.

43. The overall HCFC Phase-out Project (Stage II) was approved by the World Bank in January 2019 after internal approval by the Government of Vietnam. The Grant Agreement (GA) was signed and countersigned on March 7, 2019.
44. 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 87th ExCom due to verified ineligibility of enterprise.
45. A list of beneficiary vocational schools and servicing shops was prepared, and procurement of toolkits for vocational training schools/service shops was completed and was delivered in 2022 due to some COVID-related delays. One hundred toolkits for servicing shops and sixty-five toolkits for flammable refrigerant for selected vocational training schools were contracted by the PMU in February and March 2021 respectively with equipment suppliers. Toolkits were delivered to vocational and training schools and servicing shops by November 2021. The training of technicians started in October 2021.
46. A third-party consumption verification confirmed that Vietnam met its 2021 HCFC consumption obligation to both the MP and MLF (at 141.79 ODP MT). The 6th subgrant agreement (SGA) was signed for a foam enterprise in Jan 2022, followed by a series of SGA signing with a foam company for establishing a blending house, two foam manufacturers, and one refrigeration company in Oct 2022. Implementation plans were submitted to the 90th ExCom in Apr 2022 and to the 91st ExCom in Oct 2022. One refrigeration enterprise completed its technology conversion to NH3 in Jun 22 and another 2 (in foam) completed by the end of the year.
47. In Aug-Sep 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 Jun 22. Project's financial audit report was submitted in Jun 2022. Training for customs officers on HCFC control was conducted in Jun and Aug 2022. Safety training for beneficiary enterprises was implemented in Sep 2022. Vietnam'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 Vietnam to address a shift of R-22 consumption in the servicing sector which is keeping its consumption at the maximum allowable limit.

48. On the policy side, Vietnam with PMU support successfully promulgated the bans in HCFC imports in the AC and foam sectors for application since/on Jan 2022 and planned for Jan 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 \$1.3 million to the servicing sector at the 90th Mtg and the revised multiyear agreement and 4th and final tranche approved in Dec 2022 at the 91st Mtg.

49. 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 Apr 23 followed by contract signing with an equipment supplier. One of the AC SGAs was completed, and PCR submitted by Apr 23, the other (Nagakawa) completed trials in Apr 23 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 Jun 2023. All remaining SGAs in foam under implementation. Group SME project signing of individual companies expected by Aug 2023. The train-the-trainer training workshop on leakage management for teachers from vocational and training schools was conducted in Mar 2023. Workshop on sharing experiences in training for servicing technicians was implemented in Jun 2023. Financial audit for 2022 was conducted by consulting firm. 2022 consumption verification under preparation. All remaining ongoing SGAs and activities to be physically completed by Dec 2023.

50. The Preparation of Kigali HFC implementation plan for Vietnam was approved in December 2021. During 2022, a consulting firm hired by and immediately commenced the survey. KIP launch workshop was held Oct. 22. The survey was completed by end Dec.22 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 Feb 23 and redone by the WB (particularly growth analysis and modeling of HFC phasedown across stages) by June 23. 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 Aug. 23).

51. For the overarching Preparation of HCFC phase-out management plan (stage III), the project was approved in December 2022. A consulting firm was selected by May 23 and has begun data collection and literature review. HPMP Stage III is expected to be submitted by 21 Aug 23.

52. In February of 2023, the World Bank held its 15th East Asia and Pacific Regional Workshop from in Danang, Vietnam.