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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-third Meeting
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Item 7(a)(i) of the provisional agenda¹

CONSOLIDATED PROGRESS REPORT AS AT 31 DECEMBER 2022

Introduction

1. The consolidated progress report summarises progress and financial information provided by bilateral and implementing agencies² as of 31 December 2022, in their respective progress reports³ submitted to the Secretariat.

2. The consolidated progress report and the progress reports of the bilateral and implementing agencies include all controlled substances under the Montreal Protocol. Given that HFC-related projects and activities have been funded either under the regular contributions to the Multilateral Fund or under the additional voluntary contributions by 17 non-Article 5 Parties to provide fast-start support for implementation of the Kigali Amendment,⁴ the information related to these projects is presented separately, based on the funding source. 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.⁵

¹ UNEP/OzL.Pro/ExCom/93/1

² Progress reports were submitted by the following agencies: Australia, Canada, France, Germany, Italy, Japan, and Spain, UNDP, UNEP, UNIDO and the World Bank (documents UNEP/OzL.Pro/ExCom/93/15 to UNEP/OzL.Pro/ExCom/93/19).

³ The Executive Committee requested that detailed information on a project-by-project basis be made available to Committee members, with a printout available upon request (decision 19/23). The database for the Consolidated Progress Report is provided on the Executive Committee's intranet in the spreadsheet programme, Microsoft Excel.

⁴ At its 77th meeting, the Executive Committee accepted, with appreciation, the additional contributions announced by 17 non-Article 5 Parties to provide fast start support for implementation of the Kigali Amendment, noting that such funding was one-time in nature and would not displace donor contributions. The contributing parties are Australia, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, and United States of America.

⁵ 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.

Review process by the Secretariat

3. The Secretariat reviewed each of the annual progress reports submitted by bilateral and implementing agencies separately. The review was based on the milestones established for investment and non-investment projects including, *inter alia*, signing of agreements; date of release of first disbursement; status of procurement and installation of equipment; status of services provided, including training of refrigeration technicians and customs officers; level of disbursement of approved funds; the operational and financial completion of the project; and the return of fund balances.

4. During the review process, potential issues were identified, *inter alia*, cases where agreements had not been signed; instances where a national ozone officer was not in place; lack of financial progress reports; delayed procurement process predominantly due to supply chain issues; lack of availability of alternative technologies in local markets; and security-related issues at the country level. All projects with outstanding issues had either low disbursement rates of approved funds or/and required an extension of planned completion dates. In general, in 2022, activities relating to project implementation were returning to normal after the previous two years where countries had faced challenges due to constraints related to the COVID-19 pandemic.

5. The Secretariat also had several exchanges with each bilateral and implementing agency on projects and activities with outstanding issues, where several of the issues were satisfactorily resolved. For those projects and activities where the issues could not be resolved, the proposed recommendations for consideration by the Executive Committee were discussed and agreed with the relevant bilateral or implementing agencies. The projects and activities for which an extension of the completion dates has been requested, are considered in the main documents, while the lists of projects⁶ with outstanding issues are contained in annex III of each progress report of bilateral and implementing agencies. The recommendations will be considered during the discussions of each agency progress report at the 93rd meeting.

6. In line with decision 84/45(c), the Secretariat identified all the multi-year agreement (MYA) components with implementation delays and informed the relevant bilateral and implementing agencies. The Secretariat's recommendations are contained in annex III of each progress report of the bilateral and implementing agencies.

7. 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 ongoing⁷ project at the country level. It identifies projects with implementation delays and the potential impact on the phase-out of controlled substances, and projects with outstanding issues for consideration by the Executive Committee.

⁶ Excluding those that are considered in the relevant project proposal documents, under reports on projects with specific reporting requirements (UNEP/OzL.Pro/ExCom/93/20 and UNEP/OzL.Pro/ExCom/93/21), or under tranche submission delays (UNEP/OzL.Pro/ExCom/93/24).

⁷ 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 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.

- II. Projects approved for Annex F substances (HFCs) under the additional voluntary contributions for fast-start support for HFC phase-down.⁸
- III. Secretariat comments
- IV. Recommendation

8. The progress reports of bilateral or implementing agencies did not include any policy issue for consideration by the Executive Committee. Also, no policy issues were identified during the Secretariat's review of the progress reports.

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

9. As of 31 December 2022, the Executive Committee had approved US \$3.96 billion in projects for bilateral and implementing agencies, consisting of US \$3.54 billion for the implementation of investment and non-investment projects, and US \$416.75 million for agency support costs, as shown in table 1.

Table 1. Approved funding by sector and agency as at 31 December 2022 (US \$)

Sector	UNDP	UNEP	UNIDO	World Bank	Bilateral	Total
Aerosol	26,054,838	882,689	34,397,921	22,984,030	2,051,914	86,371,392
Destruction	3,606,279	190,040	3,805,540	400,000	1,526,282	9,528,140
Foam	173,220,709	0	89,066,904	136,059,064	8,093,731	406,440,407
Halon	4,996,975	767,640	1,780,369	70,221,038	6,147,361	83,913,384
HFC phase-down plan	3,755,000	5,367,000	4,194,000	665,000	609,000	14,590,000
Fumigants	20,081,243	2,614,366	78,028,741	5,837,887	18,226,925	124,789,160
Multiple sectors	0	0	139,440	2,341,168	0	2,480,608
Other	0	0	11,317,246	5,059,360	0	16,376,606
Phase-out plan	387,379,811	75,583,006	388,710,642	212,206,926	76,107,711	1,139,988,096
Process agent	1,286,923	0	6,337,359	114,342,497	0	121,966,778
Production	1,056,000	0	50,638,105	400,893,496	10,000,000	462,587,601
Refrigeration	139,623,080	13,956,016	182,310,825	180,259,970	40,910,116	557,060,008
Severl	69,897,960	285,842,159	21,904,344	29,413,466	4,759,718	411,817,647
Solvents	63,699,996	198,860	23,247,443	10,237,394	2,512,738	99,896,432
Sterilant	417,628	0	0	661,227	0	1,078,855
Sub-total	895,076,443	385,401,777	895,878,878	1,191,582,522	170,945,495	3,538,885,115
Agency support costs	124,211,639	31,796,964	119,222,126	124,964,722	16,559,425	416,754,876
Total	1,019,288,082	417,198,741	1,015,101,004	1,316,547,244	187,504,921	3,955,639,991

10. In 2022, 219 new projects and activities were approved. This level of funding is expected to result in the phase-out of 480,236 ODP tonnes and 536,630 CO₂-eq tonnes⁹ of consumption and production of controlled substances. Annex I shows the status of project implementation per country in 2022.

⁸ 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 Annex V to the present document.

⁹ From the 345.8 mt of HFC investment projects.

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

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	165	165	100	7,266,559	7,266,559	0	100
Demonstration	134	133	99	61,250,021	60,555,853	694,168	99
Institutional strengthening (IS)	1,405	1,260	90	168,946,734	150,207,319	18,739,414	89
Investment	3,246	3,000	92	2,786,454,101	2,626,413,978	160,040,125	94
Project preparation	1,913	1,725	90	103,334,725	88,794,854	14,539,873	86
Technical assistance	1,987	1,790	90	385,826,211	348,423,465	37,402,747	90
Training	324	324	100	25,806,764	25,806,763	1	100
Total	9,174	8,397	92	3,538,885,115	3,307,468,792	231,416,327	93

*Excludes closed and transferred projects.

**Excludes agency support costs.

12. Implementation of projects and activities by bilateral and implementing agencies for 2022 and cumulative since 1991 up to 31 December 2022, is summarized as follows:

- (a) **Phase-out:**¹⁰ In 2022, 645.5¹¹ ODP tonnes and zero CO₂-eq tonnes of consumption of controlled substances were phased out and an additional 1,435 ODP tonnes of consumption and 5,947 ODP tonnes of production of controlled substances were approved for phase-out. Since 1991, 292,732 ODP tonnes and 305,336 CO₂-eq tonnes of consumption and 205,377 ODP tonnes of production of controlled substances had been phased out, of an expected total of 480,236 ODP tonnes and 536,630 CO₂-eq tonnes from projects approved (excluding cancelled and transferred projects);
- (b) **Disbursements/approvals:** In 2022, US \$78.04 million was disbursed and US \$78.3 million was planned for disbursement based on the 2021 progress report, representing a rate of disbursement of 99.7 per cent of that planned. Cumulatively, US \$3.31 billion had been disbursed out of the total US \$3.54 billion approved for disbursement (excluding agency support costs), representing a rate of disbursement of 93 per cent. In 2022, US \$85.77 million was approved for implementation;
- (c) **Cost-effectiveness (in ODP):**¹² Since 1991, the average cost-effectiveness of investment projects approved leading to a permanent reduction in consumption was US \$8.04/kg. The cost-effectiveness for the production sector was US \$4.58/kg. The average cost-effectiveness of investment projects per ODP tonne was US \$5.22/kg for completed projects and US \$19.13/kg for ongoing projects;¹³

¹⁰ Phase-out of ODS is expressed in ODP tonnes and of HFCs in CO₂-eq tonnes.

¹¹ No phase-out for HFC-related projects in 2022.

¹² Including 345.8 mt of HFC investment projects. Cost-effectiveness in CO₂-eq is not included due to the limited number of projects approved.

¹³ 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. The cost-effectiveness for MYAs of HCFC phase-out management plan (HPMP) is US \$56.53/kg ODP, for stage I of HCFC production phase-out management plan (HPPMP) is US \$23.93/kg ODP and for stage II of HPPMP is US \$4.16/kg ODP.

- (d) **Number of projects completed:** In 2022, 249 projects were completed. Since 1991, 8,397 projects of the 9,174 projects (excluding closed or transferred projects) financed by the Multilateral Fund were completed, representing a completion rate of 92 per cent;
- (e) **Speed of delivery – investment projects:** Projects that were completed in 2022 were completed on average 53 months after their approval. Since 1991, the average time for completion of investment projects has been 38 months after their approval. First disbursements under these projects occurred, on average, 14 months after they had been approved;
- (f) **Speed of delivery – non-investment projects:** Projects that were completed in 2022 were completed on average 42 months after their approval. Since 1991, the average time for completion of non-investment projects has been 38 months after their approval. First disbursements under these projects occurred, on average, 12 months after they had been approved;
- (g) **Project preparation:** Of the 1,913 project preparation activities approved by the end of 2022, 1,725 have been completed, leaving 188 ongoing activities. In 2022, 58 project preparation activities were approved and 45 were completed;
- (h) **Implementation delays:** A total of 777 projects were under implementation at the end of 2022, experiencing, on average, a delay of 10 months. One hundred and four of these projects are classified as “projects with implementation delays”¹⁴ that are subject to the procedures of project cancellation, as demonstration projects, project preparation and IS are not subject to those procedures; and
- (i) **MYAs:** In 2022, one HPPMP, 151 MYAs for HCFC phase-out management plans (HPMPs), one MYA for Kigali HFC implementation plan (KIP) and two MYAs for control and phase-out of HFC-23 emissions were under implementation. Since 1991, 449 MYAs have been approved and 294 MYAs have been completed, representing a completion rate of 65 per cent. Annex IV summarizes the total funding approved and disbursed for HPMP activities at the country level.

13. Table 3 summarizes progress made by bilateral and implementing agencies since 1991.

Table 3: Progress made by bilateral and implementing agencies 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
498,109	305,336	3,307,468,792	8.04	4.58	9,174	8,397	38	38	10	449	294

HFC-related projects

14. As of 31 December 2022, the Executive Committee had approved 181 HFC-related projects (including 11 investment projects, 138 project preparation activities and 32 technical assistance projects) under regular contributions amounting to US \$26,317,785 (excluding agency support costs). A summary

¹⁴ 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). Pursuant to decision 84/45(c), MYA components are subjected to procedure for cancellation.

of the status of these projects is presented in table 4 and the respective data has already been included in paragraphs 9 to 13.

Table 4. HFC-related projects approved under regular contributions

Type	Number of projects			Funding (US \$)*			
	Approved	Completed	% completed	Approved	Disbursed	Balance	% disbursed
Investment**	11	4	36	7,247,922	5,270,534	1,977,388	73
Project preparation	138	4	3	14,789,510	2,069,657	12,719,853	14
Technical assistance	32	28	88	4,280,353	2,840,094	1,440,260	66
Total	181	36	20	26,317,785	10,180,286	16,137,501	39

* Excludes agency support costs.

** 213.3 mt (305,336 CO₂-eq tonnes) of 345.8 mt (536,630 CO₂-eq tonnes) of HFCs had been phased out.

15. As of the end of 2022, of the 181 projects, four investment projects, four project preparation activities and 28 technical assistance projects for enabling activities have been completed. Of the four ongoing technical assistance projects remaining, two are for enabling activities, and extension of the completion date for one was approved; the other ongoing enabling activities project is expected to be completed in 2023. The remaining two ongoing technical assistance projects are expected to be completed in 2024 and 2026. The remaining seven ongoing investment projects are expected to be completed between 2023 and 2025. One hundred and twenty-eight of the 134 ongoing project preparation activities are for KIPs and are expected to be completed between 2023 and 2025; the remaining six are for KIP investment projects and are expected to be completed in 2023 and 2024.

16. Of the total cumulative funding approved of US \$26,317,785 (excluding agency support costs), US \$10,180,286 had been disbursed, representing a disbursement rate of 39 per cent.

17. Annex III provides information on all HFC-related projects and activities under the Multilateral Fund, irrespective of the source of funding, at the country level, indicating the status of ratification of the Kigali Amendment and the status of the HFC licensing system.

I.2 Issues identified in project implementation in 2022

18. Based on planned completion dates reported in the 2021 progress report, and the results reported in the 2022 progress reports, bilateral and implementing agencies completed 67 per cent of the projects they had planned to complete in 2022. One hundred and thirty-two of the 444 ongoing projects (excluding IS and project preparation) have revised their planned dates of completion since the 2021 progress report.

19. Bilateral and implementing agencies achieved an overall rate of disbursement of 99.7 per cent in 2022. On a country/region basis, 62 countries (including regions) had a disbursement rate of over 85 per cent while 37 countries (including regions) had a disbursement rate of below 50 per cent.

20. In total, bilateral and implementing agencies are requested to report, at the 94th meeting, on 104 ongoing projects with implementation delays and 16 ongoing projects or tranches of MYAs, renewal of IS projects, preparation of HPMPs and KIPs, and technical assistance for verification report, recommended for status reports.

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

21. As of 31 December 2022, the Executive Committee had approved 144 HFC-related projects under the additional voluntary contributions amounting to US \$23.6 million (excluding agency support costs). A summary of the status of these projects is presented in table 5.

Table 5. 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**	6	6	100	8,488,843	7,040,121	1,448,722	83
Project preparation	10	10	100	214,781	214,781	0	100
Technical assistance – Enabling activities	128	127	99	14,898,856	13,377,607	1,521,250	90
Total	144	143	99	23,602,480	20,632,509	2,969,972	87

*Excludes agency support costs.

** 678.8 mt (970,373 CO₂-eq tonnes) of 775.4 mt (1,108,442 CO₂-eq tonnes) of HFCs had been phased out.

22. Of the 144 projects approved by the end of 2022, six investment projects, 10 project preparation and 127 enabling activities have been completed. Extension of the completion date of the remaining ongoing enabling activities project was approved; this project is expected to be completed in 2023.

23. Cumulatively, US \$20,632,509 had been disbursed out of the total US \$23,602,480 approved for disbursement (excluding agency support costs), representing a disbursement rate of 87 per cent.

24. Further to the review process, the remaining enabling activities project is classified as a project with implementation delays and is included in annex III to the UNEP progress report.

25. Annex V provides a comprehensive progress report on the HFC-related investment projects and enabling activities for the phase-down of HFCs in Article 5 countries (“enabling activities”) funded using the additional contributions by a group of 17 non-Article 5 Parties, in line with decision 84/12(b) and (c). This would be the last progress report on the HFC-related projects funded under the additional voluntary contributions for fast-start support for HFC phase-down, noting that there is only one remaining project.

III. Secretariat comments

26. The Secretariat noted that due to operational issues, some of the projects and tranches of HPMPs were delayed. In line with decision 82/11(b), extension for these projects to various dates up to 31 December 2024 need to be approved by the Executive Committee. The recommendations for the extension of completion dates of HPMPs for Egypt (Germany), Dominica (UNEP), Jordan (UNIDO and World Bank), and the Sudan (UNIDO) are addressed, as applicable, in the progress reports of the respective bilateral and implementing agencies, or in the respective project proposal documents.

27. The agencies have continued to provide information on specific steps taken to address delays in implementation of activities, including the analysis of the relevant root causes and information on how to avoid reoccurrence. Similar to the information reported in the 2021 progress report, the main issues identified include delays in procurement and distribution of equipment mainly due to the specialised technical nature of equipment; slower market uptake of low-global-warming-potential (GWP) technologies; structural changes in the Government including changes in national ozone unit (NOU); political/security situation; and delays in the submission of reports due to the lack of capacity of the NOU. The main actions taken by the agencies include defining procedures for timely procurement of equipment through long-term agreements with qualified suppliers; close coordination with the NOU and industry and implementation of targeted programmes for promoting the adoption of low-GWP technologies; addressing technical and operational barriers through project activities for promoting the adoption of low-GWP alternative technologies; close coordination with the Government and defining plans of actions for addressing administrative issues; and training and capacity building of NOU staff and involving senior management staff in the Government on aspects relating to operational progress monitoring and reporting.

Gender mainstreaming¹⁵

28. All agencies have undertaken different steps, at the agency level, NOU level and project level, in implementing the operational gender mainstreaming policy of the Multilateral Fund. The activities mainly include awareness and information outreach to NOUs and other stakeholders on the gender mainstreaming policy and actions needed for ensuring better gender balance during project implementation. The agencies closely work with the national counterparts and relevant project units to ensure that they have a good understanding of the gender mainstreaming policy, include provisions in all activities to encourage women participation at different levels (e.g., as consultants, project management personnel, trainees), work with the relevant stakeholders on collecting gender-disaggregated data during different activities and challenges faced in implementing the gender policy and plan and implement measures to address these challenges. UNEP, through its Compliance Assistance Programme's regional network meetings, also includes sessions to promote the gender mainstreaming policy and actions that need to be taken to effectively implement the policy.

IV. Recommendation

29. The Executive Committee may wish to note:

- (a) The consolidated progress report of the Multilateral Fund as at 31 December 2022 contained in document UNEP/OzL.Pro/ExCom/93/14;
- (b) With appreciation, the efforts undertaken by bilateral and implementing agencies in reporting their 2022 activities; and
- (c) That the bilateral and implementing agencies would report, at the 94th meeting, on 105 projects with implementation delays and 16 ongoing projects recommended for additional status reports, as contained in annex III of each individual progress report of bilateral and implementing agencies.

¹⁵ 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)).

Annex I

OVERVIEW OF STATUS OF PROJECT IMPLEMENTATION
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 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**
Afghanistan	0.0	0	305,975	134,324	44	0
Albania	0.0	0	178,224	154,516	87	100
Algeria	0.0	0	58,002	57,316	99	100
Angola	2.0	0	393,426	57,847	15	33
Antigua and Barbuda	0.0	0	30,000	0	0	0
Argentina	18.4	0	906,041	891,132	98	100
Armenia	0.0	0	93,243	192,601	207	
Bahamas (the)	0.0	0	81,069	10,038	12	67
Bahrain	0.0	0	253,256	192,504	76	100
Bangladesh	5.0	0	913,036	1,548,561	170	80
Barbados	0.0	0	51,187	9,838	19	50
Belize	0.0	0	112,595	122,035	108	100
Benin	0.1	0	64,250	129,703	202	100
Bhutan	0.0	0	61,940	27,499	44	100
Bolivia (Plurinational State of)	0.4	0	156,475	141,982	91	
Bosnia and Herzegovina	0.6	0	93,280	50,712	54	100
Botswana	0.1	0	248,231	78,009	31	33
Brazil	23.1	0	3,332,910	3,141,410	94	100
Brunei Darussalam	0.5	0	139,475	101,890	73	100
Burkina Faso	0.0	0	62,171	67,928	109	0
Burundi	0.0	0	77,750	55,775	72	100
Cabo Verde	0.0	0	58,250	15,000	26	
Cambodia	0.0	0	131,043	181,330	138	50
Cameroon	0.3	0	251,718	196,175	78	
Central African Republic (the)	0.0	0	30,000	60,000	200	100
Chad	0.0	0	36,250	84,144	232	100
Chile	17.9	0	592,448	396,218	67	40
China	90.2	0	22,073,709	24,648,036	112	20
Colombia	2.8	0	1,082,196	492,577	46	57
Comoros (the)	0.0	0	27,750	60,035	216	100
Congo (the)	0.0	0	46,350	105,130	227	50
Cook Islands (the)	0.0	0	129,093	46,062	36	100
Costa Rica	0.0	0	220,707	251,205	114	50
Cote d'Ivoire	10.7	0	180,000	462,670	257	100
Cuba	0.0	0	257,199	277,708	108	100
Democratic People's Republic of Korea (the)	0.0	0	3	20,548	684,931	
Democratic Republic of the Congo (the)	0.0	0	155,438	104,800	67	
Djibouti	0.0	0	16,135	2,020	13	100
Dominica	0.0	0	136,512	0	0	20
Dominican Republic (the)	0.0	0	497,404	694,903	140	0

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**
Ecuador	0.0	0	380,000	458,930	121	0
Egypt	13.3	0	2,303,689	1,726,707	75	80
El Salvador	0.0	0	286,831	158,923	55	100
Equatorial Guinea	0.0	0	38,358	3,576	9	50
Eritrea	0.0	0	31,251	60,012	192	100
Eswatini (the Kingdom of)	0.0	0	141,850	95,609	67	100
Ethiopia	0.0	0	115,551	56,103	49	100
Fiji	0.0	0	223,200	77,813	35	67
Gabon	4.9	0	77,250	119,664	155	67
Gambia (the)	0.0	0	122,751	62,424	51	
Georgia	0.0	0	114,358	90,451	79	100
Ghana	20.9	0	322,334	151,188	47	100
Grenada	0.0	0	88,961	57,764	65	100
Guatemala	0.4	0	177,484	118,249	67	
Guinea	0.0	0	62,465	9,323	15	100
Guinea-Bissau	0.0	0	41,750	64,880	155	0
Guyana	0.0	0	130,032	57,435	44	0
Haiti	0.0	0	93,568	63,555	68	100
Honduras	0.4	0	129,250	229,855	178	100
India	17.3	0	4,818,436	6,683,092	139	75
Indonesia	0.0	0	1,593,853	775,244	49	40
Iran (Islamic Republic of)	10.2	0	1,428,837	1,787,662	125	50
Iraq	0.0	0	1,017,051	566,852	56	
Jamaica	0.0	0	141,559	135,827	96	100
Jordan	0.0	0	547,602	532,382	97	50
Kenya	0.0	0	186,928	169,385	91	100
Kiribati	0.0	0	171,965	53,574	31	100
Kuwait	204.0	0	1,592,585	1,161,896	73	100
Kyrgyzstan	0.0	0	84,393	132,139	157	100
Lao People's Democratic Republic (the)	0.0	0	223,189	62,251	28	25
Lebanon	0.0	0	282,524	293,025	104	
Lesotho	0.0	0	73,482	8,706	12	
Liberia	3.2	0	57,618	93,160	162	100
Libya	2.7	0	265,000	201,783	76	25
Madagascar	0.0	0	57,700	118,517	205	100
Malawi	0.0	0	142,904	122,149	85	100
Malaysia	13.7	0	1,395,939	1,505,760	108	50
Maldives	0.0	0	61,161	51,632	84	100
Mali	0.0	0	47,200	68,715	146	
Marshall Islands (the)	0.0	0	73,089	13,274	18	100
Mauritania	0.0	0	45,000	79,845	177	100
Mauritius	3.1	0	106,250	57,134	54	
Mexico	23.0	0	1,245,250	1,866,636	150	20
Micronesia (Federated States of)	0.0	0	150,794	66,872	44	100
Mongolia	0.0	0	113,103	86,089	76	
Montenegro	0.1	0	91,802	68,017	74	
Morocco	8.1	0	103,600	122,022	118	100
Mozambique	0.0	0	114,887	117,638	102	100
Myanmar	0.0	0	106,104	255	0	0

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**
Namibia	0.0	0	136,571	102,579	75	100
Nauru	0.0	0	85,803	10,909	13	67
Nepal	0.1	0	165,656	21,517	13	75
Nicaragua	0.1	0	185,441	158,469	85	0
Niger (the)	1.1	0	180,501	237,803	132	100
Nigeria	6.5	0	1,607,925	2,824,372	176	57
Niue	0.0	0	67,800	65,258	96	100
North Macedonia	0.1	0	150,003	165,795	111	100
Oman	0.0	0	194,291	138,950	72	100
Pakistan	41.3	0	1,067,839	1,752,988	164	80
Palau	0.0	0	164,984	108,709	66	100
Panama	0.0	0	317,147	375,068	118	100
Papua New Guinea	0.0	0	135,665	68,860	51	0
Paraguay	0.0	0	206,735	169,389	82	100
Peru	2.0	0	233,620	201,540	86	100
Philippines (the)	0.0	0	182,055	220,636	121	
Qatar	0.0	0	221,736	212,153	96	100
Republic of Moldova (the)	0.0	0	105,918	84,883	80	100
Rwanda	0.0	0	144,001	39,629	28	
Saint Kitts and Nevis	0.0	0	52,693	8,818	17	0
Saint Lucia	0.0	0	83,715	51	0	67
Saint Vincent and the Grenadines	0.0	0	127,543	45,479	36	50
Samoa	0.0	0	123,150	64,100	52	100
Sao Tome and Principe	0.0	0	76,355	59,571	78	0
Saudi Arabia	0.0	0	537,696	784,372	146	67
Senegal	0.0	0	215,465	147,941	69	100
Serbia	0.0	0	121,002	120,758	100	0
Seychelles	1.0	0	35,055	57,561	164	50
Sierra Leone	0.0	0	126,243	66,045	52	100
Solomon Islands	0.0	0	179,166	94,159	53	100
Somalia	0.0	0	104,250	66,701	64	50
South Africa	78.5	0	603,001	599,708	99	100
South Sudan	0.0	0	52,500	20,000	38	67
Sri Lanka	0.0	0	318,895	162,947	51	
Sudan (the)	4.2	0	264,184	326,135	123	100
Suriname	0.0	0	113,391	64,840	57	40
Syrian Arab Republic	0.0	0	310,915	262,251	84	100
Thailand	0.0	0	1,148,175	409,875	36	0
Timor-Leste	0.0	0	116,844	82,360	70	67
Togo	0.0	0	64,000	180,527	282	100
Tonga	0.0	0	178,243	139,461	78	100
Trinidad and Tobago	0.0	0	297,210	188,548	63	
Tunisia	0.0	0	205,002	221,899	108	0
Türkiye	0.0	0	147,000	175,017	119	0
Turkmenistan	0.0	0	135,500	156,194	115	0
Tuvalu	0.0	0	66,152	47,943	72	100
Uganda	0.0	0	85,300	56,177	66	
United Republic of Tanzania (the)	0.0	0	121,625	82,406	68	100
Uruguay	5.3	0	464,640	206,209	44	50
Vanuatu	0.0	0	153,392	45,764	30	100

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**
Venezuela (Bolivarian Republic of)	0.0	0	197,492	357,030	181	50
Viet Nam	0.0	0	1,669,346	1,101,157	66	0
Yemen	0.0	0	85,000	0	0	0
Zambia	0.0	0	129,001	120,026	93	0
Zimbabwe	8.0	0	348,967	240,048	69	100
Region: ASP	0.0	0	232,500	43,022	19	100
Global	0.0	0	8,701,433	8,342,317	96	100
Grand total	645.5	0	78,301,211	78,035,099	100	67

* No phase-out in 2022 for HFC-related projects.

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

Annex II

**OVERVIEW OF STATUS OF PROJECT IMPLEMENTATION
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 2009 and in 2011, 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	68	68	100	7,950,771	7,950,771	0	100
1992	176	176	100	41,261,376	41,261,376	0	100
1993	217	217	100	73,198,586	73,198,586	0	100
1994	379	379	100	128,630,289	128,630,290	-1	100
1995	355	355	100	111,188,308	111,188,309	-1	100
1996	257	257	100	83,813,027	83,813,027	0	100
1997	532	532	100	154,314,938	154,314,940	-2	100
1998	422	422	100	99,680,368	99,680,367	1	100
1999	546	546	100	152,710,735	152,710,736	-1	100
2000	426	426	100	109,540,524	109,540,522	2	100
2001	427	427	100	130,139,751	130,139,752	-1	100
2002	358	358	100	162,045,818	162,045,816	2	100
2003	247	247	100	157,043,468	157,043,468	0	100
2004	271	271	100	162,388,009	162,388,008	1	100
2005	255	255	100	180,276,024	180,276,021	3	100
2006	261	261	100	120,847,322	120,847,323	-1	100
2007	213	213	100	120,084,049	120,084,047	2	100
2008	354	354	100	121,600,746	121,600,750	-5	100
2009	320	320	100	73,691,484	73,400,556	290,929	100
2010	227	226	100	84,437,899	83,842,669	595,230	99
2011	264	264	100	201,764,577	201,764,500	78	100
2012	182	178	98	100,973,747	99,834,660	1,139,087	99
2013	184	182	99	125,242,188	125,205,543	36,645	100
2014	223	218	98	92,448,102	91,447,761	1,000,341	99
2015	377	366	97	156,661,467	151,691,108	4,970,359	97
2016	240	217	90	114,697,279	99,652,903	15,044,376	87
2017	124	109	88	63,869,396	60,831,726	3,037,671	95
2018	271	228	84	120,358,468	94,668,234	25,690,234	79
2019	226	158	70	49,195,251	31,101,209	18,094,041	63
2020	257	136	53	67,840,245	48,619,289	19,220,959	72
2021	296	30	10	85,222,543	28,137,526	57,085,018	33
2022	219	1	0	85,768,359	556,998	85,211,361	1
Total	9,174	8,397	92	3,538,885,115	3,307,468,792	231,416,327	93

* 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.

Completed projects²

2. Since 1991, 8,397 projects of the 9,174 projects (excluding closed or transferred projects) financed by the Multilateral Fund were completed, representing a completion rate of 92 per cent. Tables 2 to 4 present information on completed investment, non-investment and project preparation activities.

Completed investment projects

3. Table 2 presents information on investment projects that have been completed since 1991. The table presents the data in total, followed by data according to region, sector, implementation characteristics, and disbursement method.

Table 2. 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.)
TOTAL	3,000	2,508,639,681	100	276,034	204,189	14	38	5.22
Region								
Africa	528	170,152,839	99	18,388	0	12	40	9.25
Asia & Pacific	1,572	1,856,753,604	100	214,777	184,239	16	38	4.65
Europe	166	72,760,978	100	8,051	175	10	34	8.85
Latin America and Caribbean	734	408,972,260	100	34,818	19,775	14	37	7.49
Global	n/a	0	0	0	0	n/a	n/a	n/a
Sector								
Aerosol	127	82,501,519	100	27,449	0	16	43	3.01
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	1,004	376,906,697	100	69,439	0	15	34	5.43
Fumigants	123	99,900,005	100	7,993	0	10	49	12.50
Halon	39	71,476,177	100	42,111	41,958	17	30	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	8	16,059,360	100	1,574	0	12	20	10.20
Phase-out plan	855	785,715,180	99	55,567	10,988	12	41	11.81
Process agent	30	120,252,626	100	19,573	52,162	10	27	1.68
Production	62	416,148,243	100	0	99,081	9	20	4.20
Refrigeration	617	441,966,839	100	44,565	0	16	40	9.92
Solvents	128	94,351,804	100	7,285	0	19	32	12.95
Sterilant	3	1,073,855	100	60	0	15	34	17.78
Implementation characteristics								
Agency implementation	1,872	967,222,462	99	97,233	17,381	11	36	8.44
National implementation	1,128	1,541,417,219	100	178,800	186,808	20	40	4.22
Disbursement method								
During implementation	2,879	2,069,284,461	100	267,899	199,719	14	38	4.43
After implementation	50	17,166,608	100	2,512	0	23	25	6.83
Retroactive funding	37	14,635,851	100	2,100	500	15	11	5.63
Country to final beneficiaries	34	407,552,761	100	3,523	3,970	9	58	54.39

*Excludes closed and transferred projects.

² Completed projects/activities are defined in decisions 17/22 and 19/23 as projects that have been commissioned and where the ODS addressed has been phased out. A further decision (decision 28/2) extends the definition to cover situations where no further use of CFCs in the sectors covered is in evidence, where an alternative product is being produced (and/or production has begun), and where the equipment using CFCs has been destroyed/dismantled/rendered unusable with respect to ODSs. Work programme activities without an ODS phase-out are considered completed when the activity is finished (e.g., for a workshop, when it has been conducted). This definition has been applied for HCFC-related projects.

4. Overall, 99.6 per cent of the funds approved for completed investment projects have been disbursed.³ Since 1991, 3,000 investment projects have been completed at a total value of US \$2.51 billion. The average time from approval to first disbursement for investment projects is 14 months. Investment projects have been completed, on average, 38 months after they were approved.

Completed non-investment projects

5. Table 3 presents data on cumulative completed non-investment projects. Since 1991, 3,672 non-investment projects have been completed at a total value of US \$573.41 million.

Table 3. 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
TOTAL	3,672	573,409,597	100	12	38
Region					
Africa	1,131	99,169,287	99	12	38
Asia & Pacific	1,123	163,097,693	101	13	40
Europe	239	22,558,259	100	9	33
Latin America and Caribbean	860	102,192,382	99	13	41
Global	319	186,391,976	99	6	22
Sector					
Aerosol	31	2,461,265	100	11	36
Destruction	17	8,695,865	100	11	65
Fire fighting	0	0	0	n/a	n/a
Foam	34	10,543,567	100	14	36
Fumigants	137	21,224,436	100	9	39
Halon	82	11,238,157	100	17	44
HFC phase-down plan	0	0	0	n/a	n/a
Multiple sectors	1	53,792	100	56	58
Other	1	76,499	100	7	38
Phase-out plan	732	69,033,172	101	13	40
Process agent	0	0	0	n/a	n/a
Production	1	40,000	100	4	4
Refrigeration	638	91,384,389	99	16	50
Several	1,964	355,259,673	99	10	32
Solvents	34	3,398,782	100	11	27
Sterilant	0	0	0	n/a	n/a
Implementation characteristics					
Agency implementation	2,992	431,025,891	99	12	37
National implementation	680	142,383,706	101	14	41
Disbursement method					
During implementation	3,637	561,006,631	100	12	38
After implementation	26	2,325,462	100	14	21
Retroactive funding	1	146,698	100	3	83
Country to final beneficiaries	8	9,930,807	100	7	38

6. The average time from approval to first disbursement for non-investment projects is 12 months. Non-investment projects have been completed, on average, 38 months after they were approved. This figure is influenced by the large number of projects (1,964 of 3,672) in the sector called “several”, which had an average time from approval to completion of 32 months. Non-investment projects in the other sectors were completed between four and 65 months after they had been approved.

³ The reason that 100 per cent of funds have not been disbursed for completed projects is that it may take from six months to one year to finalise accounting records.

7. Almost all projects were implemented by the agency concerned rather than through national implementation. Agency implementation of non-investment projects normally does not require legal agreements, which may explain the shorter period of time (37 months) compared with nationally-implemented non-investment projects (41 months).

Completed project preparation activities

8. Table 4 presents data on cumulative completed project preparation activities. Since 1991, 1,725 preparation activities have been completed at a total value of US \$86.41 million.

Table 4. Cumulative completed project preparation activities

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
TOTAL	1,725	86,413,178	100	8	23
Region					
Africa	446	15,165,941	99	8	25
Asia & Pacific	656	42,730,224	100	8	23
Europe	122	5,084,615	100	7	22
Latin America and Caribbean	482	21,821,972	100	7	21
Global	19	1,610,425	100	5	16
Sector					
Aerosol	45	1,254,279	100	6	17
Destruction	18	818,719	100	13	40
Fire fighting	0	0	0	n/a	n/a
Foam	259	11,121,927	100	6	21
Fumigants	118	2,993,886	100	5	17
Halon	27	836,728	100	6	19
HFC phase-down plan	1	170,000	66	6	17
Multiple sectors	3	139,440	100	3	34
Other	2	240,747	100	11	35
Phase-out plan	505	28,834,397	99	11	31
Process agent	9	694,384	100	9	19
Production	12	1,402,145	100	7	15
Refrigeration	385	13,804,437	100	7	21
Several	283	21,969,992	100	4	15
Solvents	57	2,127,097	100	6	25
Sterilant	1	5,000	100	1	9
Implementation characteristics					
Agency implementation	1,506	71,445,817	100	7	22
National implementation	219	14,967,361	99	11	30
Disbursement method					
During implementation	1,715	84,811,717	100	8	23
After implementation	6	899,752	100	7	21
Retroactive funding	0	0	0	n/a	n/a
Country to final beneficiaries	4	701,708	100	5	29

9. The average time from approval to first disbursement for project preparation activities is eight months. Preparation activities have been completed, on average, 23 months after they were approved. Overall, 99.5 per cent of the funds approved for completed preparation activities have been disbursed.

Ongoing projects

10. A total of 777 projects were under implementation at the end of 2022. Tables 5 to 7 present information on ongoing investment, non-investment and project preparation activities.

Ongoing investment projects

11. Table 5 presents information on the status of investment projects under implementation by region, sector, and implementation characteristics.

Table 5. Cumulative ongoing investment projects

Item	Number of projects	Approved funds plus adjustment (US \$)	Per cent of funds disbursed (%)	Number of projects disbursing	Per cent of projects disbursing (%)	Average number of months from approval to first disbursement	Average number of months from approval to planned completion	Average length of delay in project planned completion	Overall cost-effectiveness to the Fund (US\$/kg.)*
TOTAL	246	261,304,616	42	165	67	11	50	29	19.13
Region									
Africa	76	41,447,700	33	51	67	14	53	37	69.93
Asia & Pacific	106	183,059,327	45	68	64	11	49	30	14.51
Europe	15	5,383,754	25	11	73	7	46	16	81.82
Latin America and Caribbean	49	31,413,835	41	35	71	9	49	22	80.26
Global	0	0	0	0	0	0	n/a	n/a	n/a
Sector									
Aerosol	0	0	0	0	0	n/a	n/a	n/a	n/a
Destruction	0	0	0	0	0	n/a	n/a	n/a	n/a
Fire fighting	0	0	0	0	0	n/a	n/a	n/a	n/a
Foam	2	2,470,162	100	2	100	10	89	68	83.45
Fumigants	0	0	0	0	0	n/a	n/a	n/a	n/a
Halon	0	0	0	0	0	n/a	n/a	n/a	n/a
HFC phase-down plan	1	80,000	0	0	0	n/a	36	n/a	n/a
Multiple sectors	0	0	0	0	0	n/a	n/a	n/a	n/a
Other	0	0	0	0	0	n/a	n/a	n/a	n/a
Phase-out plan	237	211,424,792	39	161	68	11	50	28	28.03
Process agent	0	0	0	0	0	n/a	n/a	n/a	n/a
Production	2	44,997,213	51	1	50	16	52	49	7.57
Refrigeration	4	2,332,449	65	1	25	11	54	40	16.24
Solvents	0	0	0	0	0	n/a	n/a	n/a	n/a
Sterilant	0	0	0	0	0	n/a	n/a	n/a	n/a
Implementation characteristics									
Agency implementation	178	134,758,029	30	120	67	11	52	33	36.61
National implementation	68	126,546,587	56	45	66	13	45	20	12.68
Disbursement method									
During implementation	234	137,423,526	32	155	66	12	50	29	47.63
After implementation	0	0	0	0	0	n/a	n/a	n/a	n/a
Retroactive funding	0	0	0	0	0	n/a	n/a	n/a	n/a
Country to final beneficiaries	12	123,881,090	53	10	83	6	56	34	11.49

*Based on the ODS to be phased out according to the proposal.

12. There are currently 246 investment projects under implementation at a total value of over US \$261.3 million. Around 42 per cent of the funds have already been disbursed. The overall average cost-effectiveness of ongoing investment projects is US \$19.13/kg ODP to be phased out. The average number of months from approval to first disbursement is 11 months. The average duration of an ongoing investment project is 50 months. Typically, ongoing investment projects are completed 29 months later than originally planned, which could be considered the average delay.

Ongoing non-investment projects

13. Table 6 presents information on the status of non-investment projects under implementation by region, sector, and implementation characteristic.

Table 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	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
TOTAL	343	74,494,144	27	168	49	15	37	8
Region								
Africa	99	11,639,528	17	28	28	20	33	6
Asia & Pacific	121	34,865,611	36	74	61	16	39	6
Europe	23	2,647,910	29	16	70	8	31	4
Latin America and Caribbean	95	14,418,535	35	50	53	15	42	13
Global	5	10,922,560	0	0	0	n/a	15	0
Sector								
Aerosol	0	0	0	0	0	n/a	n/a	n/a
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	0	0	0	0	0	n/a	n/a	n/a
Fumigants	0	0	0	0	0	n/a	n/a	n/a
Halon	0	0	0	0	0	n/a	n/a	n/a
HFC phase-down plan	1	20,000	0	0	0	n/a	48	n/a
Multiple sectors	0	0	0	0	0	n/a	n/a	n/a
Other	0	0	0	0	0	n/a	n/a	n/a
Phase-out plan	188	38,704,353	36	93	49	18	41	8
Process agent	0	0	0	0	0	n/a	n/a	n/a
Production	0	0	0	0	0	n/a	n/a	n/a
Refrigeration	2	1,400,000	84	1	50	4	54	33
Several	152	34,369,791	15	74	49	13	32	7
Solvents	0	0	0	0	0	n/a	n/a	n/a
Sterilant	0	0	0	0	0	n/a	n/a	n/a
Implementation characteristics								
Agency implementation	292	58,350,676	26	132	45	16	37	7
National implementation	51	16,143,468	33	36	71	13	37	10
Disbursement method								
During implementation	343	74,494,144	27	168	49	15	37	8
After implementation	0	0	0	0	0	n/a	n/a	n/a
Retroactive funding	0	0	0	0	0	n/a	n/a	n/a
Country to final beneficiaries	0	0	0	0	0	n/a	n/a	n/a

14. There are currently 343 non-investment projects under implementation at a total value of US \$74.49 million, with 27 per cent of the funds already disbursed. The average number of months from approval to first disbursement is 15 months. On average, ongoing non-investment projects are completed 37 months from the date of approval, which represents a delay of eight months.

Ongoing project preparation activities

15. Table 7 presents information on the status of project preparation activities under implementation by region, sector, and implementation characteristic.

Table 7. Cumulative ongoing project preparation activities

Item	Number of projects	Approved funds plus adjustment (US\$)	Funds disbursed (US\$)	Per cent of funds disbursed (%)	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
TOTAL	188	16,642,500	2,506,389	15	11	31	6
Region							
Africa	92	6,927,500	724,948	10	14	32	8
Asia & Pacific	49	4,586,000	685,186	15	8	28	4
Europe	12	1,259,000	332,510	26	8	28	3
Latin America and Caribbean	35	3,870,000	763,745	20	8	32	8
Global	0	0	0	0	n/a	n/a	n/a
Sector							
Aerosol	0	0	0	0	n/a	n/a	n/a
Destruction	0	0	0	0	n/a	n/a	n/a
Fire fighting	0	0	0	0	n/a	n/a	n/a
Foam	2	160,000	34,412	22	8	42	24
Fumigants	0	0	0	0	n/a	n/a	n/a
Halon	0	0	0	0	n/a	n/a	n/a
HFC phase-down plan	131	14,320,000	1,773,695	12	9	27	2
Multiple sectors	0	0	0	0	n/a	n/a	n/a
Other	0	0	0	0	n/a	n/a	n/a
Phase-out plan	52	1,952,500	605,223	31	15	40	16
Process agent	0	0	0	0	n/a	n/a	n/a
Production	0	0	0	0	n/a	n/a	n/a
Refrigeration	3	210,000	93,059	44	4	31	6
Several	0	0	0	0	n/a	n/a	n/a
Solvents	0	0	0	0	n/a	n/a	n/a
Sterilant	0	0	0	0	n/a	n/a	n/a
Implementation characteristics							
Agency implementation	155	13,019,500	1,948,530	15	11	31	6
National implementation	33	3,623,000	557,859	15	8	32	7
Disbursement method							
During implementation	188	16,642,500	2,506,389	15	11	31	6
After implementation	0	0	0	0	n/a	n/a	n/a
Retroactive funding	0	0	0	0	n/a	n/a	n/a
Country to final beneficiaries	0	0	0	0	n/a	n/a	n/a

16. There are currently 188 project preparation activities under implementation at a total value of US \$16.64 million, with 15 per cent of the funds already disbursed. The average number of months from approval to first disbursement is 11 months. On average, ongoing preparation activities are completed 31 months from the date of approval, which represents a delay of six months.

Closed projects

17. Table 8 presents a summary of closed projects. Since 1991, 277 projects have been closed at a total value of US \$15.01 million.

Table 8. Closed projects summary

Agency	Number of projects	Approved funding plus adjustment (US\$)	Funds disbursed (US \$)	Balances (US\$)	Consumption ODP to be phased out	Consumption ODP phased out
UNDP	81	6,895,392	6,895,392	1	673	636
UNEP	14	21,000	21,000	0	12	12
UNIDO	68	6,446,674	6,446,674	0	1,808	367
World Bank	95	1,373,519	1,373,519	0	657	581
Bilaterals	19	272,901	227,901	45,000	223	0
Total	277	15,009,486	14,964,486	45,000	3,373	1,595

Annex III

AN OVERVIEW OF HFC-RELATED PROJECTS AND ACTIVITIES

1. Since its 80th meeting, the Executive Committee has approved funding for the implementation of HFC investment projects (decisions 78/3(g) and 79/45), and enabling activities to help national ozone units fulfil their initial obligations with regard to HFC phase-down in line with the Kigali Amendment (decision 79/46).

2. As of 31 December 2022, the Executive Committee has approved 325 HFC-related projects and activities in 138 countries and two regions, consisting of 148 requests for project preparation, 16 investment projects, two requests for a Kigali HFC implementation plan (KIP), one technical assistance project and 158 enabling activities, amounting to US \$49.92 million (excluding support costs).

3. Table 1 presents an overview of all HFC-related projects and activities under the Multilateral Fund, irrespective of their source of funding, at the country level, indicating the status of ratification of the Kigali Amendment and the status of the HFC licensing system.

Table 1. Overview of all HFC-related projects and activities under the Multilateral Fund

Country	Group	Ratification of Kigali Amendment	Implementation of licensing system	Funds approved (US \$)				
				Enabling activities	Project preparation	Investment projects	KIP	Technical assistance
Afghanistan	I			150,000				
Albania	I	Yes	√	94,978	130,000			
Algeria	I			150,000				
Angola	I	Yes	Pending	150,000	170,000			
Antigua and Barbuda	I							
Argentina	I	Yes	√	250,000	294,816	3,368,606		
Armenia	I	Yes	√	149,639	170,000			
Bahamas (the)	I	Yes	Pending	95,000				
Bahrain	II			140,240				
Bangladesh	I	Yes	√	150,000	190,000	3,131,610		
Barbados	I	Yes	√					
Belize	I	Yes	Pending	95,000				
Benin	I	Yes	√	150,000	190,000			
Bhutan	I	Yes	√	49,654	100,000			
Bolivia (Plurinational State of)	I	Yes	√	150,000	170,000			
Bosnia and Herzegovina	I	Yes	√	94,920	130,000			
Botswana	I	Yes	√	150,000	170,000			
Brazil	I	Yes	√					
Brunei Darussalam	I			150,000				
Burkina Faso	I	Yes	√	150,000	190,000			
Burundi	I	Yes	√	150,000				
Cabo Verde	I	Yes	√	95,000	130,000			
Cambodia	I	Yes	√	147,918	170,000			
Cameroon	I	Yes	√	149,324	190,000			
Central African Republic (the)	I							
Chad	I	Yes	√	150,000	170,000			
Chile	I	Yes	√	150,000	190,000			
China	I	Yes	√	244,685	47,687	1,274,967		

Country	Group	Ratification of Kigali Amendment	Implementation of licensing system	Funds approved (US \$)				
				Enabling activities	Project preparation	Investment projects	KIP	Technical assistance
Colombia	I	Yes	√	250,000	220,000			
Comoros (the)	I	Yes	√	50,000	100,000			
Congo (the)	I	Yes	Pending	149,841	170,000			
Cook Islands (the)	I	Yes	√	50,000				
Costa Rica	I	Yes	√	144,830	170,000			
Cote d'Ivoire	I	Yes	√	150,000	190,000			
Cuba	I	Yes	√	150,000	170,000			
Democratic People's Republic of Korea (the)	I	Yes	√					
Democratic Republic of the Congo (the)	I			150,000				
Djibouti	I			50,000				
Dominica	I			50,000				
Dominican Republic (the)	I	Yes	√	149,518	201,572	129,801		
Ecuador	I	Yes	√	120,725	219,937	267,885		
Egypt	I	Yes	Pending	250,000	17,964			
El Salvador	I	Yes	Pending	150,000	170,000			
Equatorial Guinea	I			150,000				
Eritrea	I	Yes	Pending	92,822				
Eswatini (the Kingdom of)	I	Yes	√	94,509	130,000			
Ethiopia	I	Yes	Pending	94,208	130,000			
Fiji	I	Yes	√	150,000	130,000			
Gabon	I	Yes	√	150,000	190,000			
Gambia (the)	I	Yes	√	94,947	130,000			
Georgia	I	Yes	Pending	95,000				
Ghana	I	Yes	√	149,425	190,000			
Grenada	I	Yes	√	46,491	100,000			
Guatemala	I		√	128,267				
Guinea	I	Yes	√	150,000	190,000			
Guinea-Bissau	I	Yes	√	95,000	130,000			
Guyana	I			95,000				
Haiti	I			95,000				
Honduras	I	Yes	√	150,000	170,000			
India	II	Yes	√	250,000				
Indonesia	I	Yes	Pending	246,666				
Iran (Islamic Republic of)	II			250,000				
Iraq	II			168,030				
Jamaica	I			145,083				
Jordan	I	Yes	√	150,000	190,000	1,637,610		
Kenya	I	Yes	Pending	150,000				
Kiribati	I	Yes	√	50,000				
Kuwait	II			250,000				
Kyrgyzstan	I	Yes	√	95,000	130,000			
Lao People's Democratic Republic (the)	I	Yes	√	95,000	130,000			
Lebanon	I	Yes	√	149,979	247,894	1,039,874		
Lesotho	I	Yes	Pending	94,532	130,000			

Country	Group	Ratification of Kigali Amendment	Implementation of licensing system	Funds approved (US \$)				
				Enabling activities	Project preparation	Investment projects	KIP	Technical assistance
Liberia	I	Yes	Pending	95,000	130,000			
Libya	I			150,000				
Madagascar	I			150,000				
Malawi	I	Yes	√	149,954	170,000			
Malaysia	I	Yes	√	250,000	480,000			
Maldives	I	Yes	√	95,000	130,000			
Mali	I	Yes	Pending	150,000				
Marshall Islands (the)	I	Yes	√	50,000				
Mauritania	I			150,000				
Mauritius	I	Yes	√	139,622	170,000			
Mexico	I	Yes	√	240,755	424,512	4,195,944		
Micronesia (Federated States of)	I	Yes	√	48,247				
Mongolia	I	Yes	√	92,866	130,000			
Montenegro	I	Yes	√	49,973	100,000			
Morocco	I	Yes	√	150,000	190,000			
Mozambique	I	Yes	Pending	149,330	170,000			
Myanmar	I			95,000				
Namibia	I	Yes	√	147,673	170,000			
Nauru	I	Yes	√	26,062				
Nepal	I		√	95,000				
Nicaragua	I	Yes	√	150,000	170,000			
Niger (the)	I	Yes	√	148,244	170,000		100,000	
Nigeria	I	Yes	√	245,868	220,000			
Niue	I	Yes	√	33,863				
North Macedonia	I	Yes	√	95,000	130,000			
Oman	II			129,061				
Pakistan	II			250,000				
Palau	I	Yes	√	25,000				
Panama	I	Yes	√	150,000	190,000			
Papua New Guinea	I			95,000				
Paraguay	I	Yes	√	150,000	170,000			
Peru	I	Yes	√	147,582	190,000			
Philippines (the)	I	Yes	√	225,992	220,000			
Qatar	II			150,000				
Republic of Moldova (the)	I	Yes	Pending	50,000				
Rwanda	I	Yes	√	91,190	130,000			
Saint Kitts and Nevis	I			50,000				
Saint Lucia	I	Yes	√	95,000	130,000			
Saint Vincent and the Grenadines	I	Yes	√	50,000				
Samoa	I	Yes	√	49,018				
Sao Tome and Principe	I	Yes	Pending	95,000	130,000			
Saudi Arabia	II			250,000				
Senegal	I	Yes	√	137,814	190,000			
Serbia	I	Yes	√	143,900	170,000			
Seychelles	I	Yes	√	95,000	130,000			
Sierra Leone	I	Yes	√	94,741	130,000			
Solomon Islands	I	Yes	√	95,000				

Country	Group	Ratification of Kigali Amendment	Implementation of licensing system	Funds approved (US \$)				
				Enabling activities	Project preparation	Investment projects	KIP	Technical assistance
Somalia	I	Yes	Pending	150,000	170,000			
South Africa	I	Yes	√	240,000	220,000			
South Sudan	I			94,791				
Sri Lanka	I	Yes	√	150,000	170,000			
Sudan (the)	I			149,656	30,000			
Suriname	I			95,000				
Syrian Arab Republic	I	Yes	√	250,000	220,000			
Thailand	I			250,000	30,000	183,514		
Timor-Leste	I			50,000				
Togo	I	Yes	√	129,488	170,000			
Tonga	I	Yes	√	48,745				
Trinidad and Tobago	I	Yes	√	145,733	190,000			
Tunisia	I	Yes	√	149,990	190,000			
Türkiye	I	Yes	√	250,000	220,000			
Turkmenistan	I	Yes	√	148,955	170,000			
Tuvalu	I	Yes	√	25,631				
Uganda	I	Yes	√	49,763	100,000			
United Republic of Tanzania (the)	I	Yes	√	94,185	130,000			
Uruguay	I	Yes	√	150,000	190,000			
Vanuatu	I	Yes	√	46,845				
Venezuela (Bolivarian Republic of)	I	Yes	Pending	250,000				
Viet Nam	I	Yes	√	249,238	220,000			
Yemen	I							
Zambia	I	Yes	Pending	94,254	130,000			
Zimbabwe	I	Yes	√	140,551	189,909	426,954		
Region: ASP					780,000			
Global								793,400
Grand total				18,365,810	15,004,290	15,656,765	100,000	793,400

Annex IV

HCFC PHASE-OUT MANAGEMENT PLAN BY COUNTRY
AS AT 31 DECEMBER 2022

Country	Approved phase-out (ODP tonnes)	Funds approved (US\$)	Funds disbursed (US\$)	Balance (US\$)	Funds disbursed (%)
Afghanistan	9.4	989,524	581,799	407,725	59
Albania	4.1	561,413	360,678	200,735	64
Algeria	13.5	1,808,804	1,230,178	578,626	68
Angola	10.8	989,326	549,835	439,491	56
Antigua and Barbuda	0.0	27,235	27,235	0	100
Argentina	142.4	15,345,624	11,810,316	3,535,308	77
Armenia	3.5	676,735	675,496	1,239	100
Bahamas (the)	3.2	486,225	257,083	229,142	53
Bahrain	39.0	1,436,624	1,036,087	400,536	72
Bangladesh	39.1	6,194,621	3,449,890	2,744,731	56
Barbados	2.5	439,178	218,016	221,162	50
Belize	1.1	442,704	273,500	169,204	62
Benin	16.0	950,778	629,872	320,906	66
Bhutan	0.3	422,359	422,349	10	100
Bolivia (Plurinational State of)	2.7	479,499	350,784	128,716	73
Bosnia and Herzegovina	7.2	1,064,785	901,030	163,755	85
Botswana	3.8	810,000	332,412	477,588	41
Brazil	531.7	42,510,669	35,080,889	7,429,781	83
Brunei Darussalam	3.9	475,100	299,103	175,997	63
Burkina Faso	3.9	628,630	628,630	0	100
Burundi	1.0	296,692	296,379	313	100
Cabo Verde	0.1	332,834	159,834	173,000	48
Cambodia	7.8	1,350,000	1,105,090	244,909	82
Cameroon	34.7	2,441,520	1,382,731	1,058,789	57
Central African Republic (the)	0.5	64,001	64,001	0	100
Chad	10.9	887,542	554,542	333,000	62
Chile	77.1	5,431,854	4,213,093	1,218,762	78
China	8,969.0	428,853,786	383,217,480	45,636,307	89
Colombia	193.8	12,443,765	11,183,968	1,259,796	90
Comoros (the)	0.0	159,653	159,653	0	100
Congo (the)	3.6	348,626	282,180	66,446	81
Cook Islands (the)	0.0	264,050	99,426	164,624	38
Costa Rica	19.6	1,727,049	1,325,384	401,665	77
Cote d'Ivoire	22.3	1,824,102	1,434,464	389,638	79
Croatia	8.1	804,104	804,104	0	100
Cuba	19.3	2,007,527	1,818,423	189,104	91
Democratic People's Republic of Korea (the)	19.4	804,255	291,595	512,660	36
Democratic Republic of the Congo (the)	9.4	832,524	474,524	358,000	57
Djibouti	0.2	164,500	143,500	21,000	87
Dominica	0.1	148,050	10,026	138,024	7
Dominican Republic (the)	12.5	3,826,891	3,587,859	239,033	94
Ecuador	28.0	2,549,175	2,529,321	19,853	99
Egypt	332.2	25,519,760	14,800,489	10,719,270	58
El Salvador	12.9	1,251,760	1,041,120	210,640	83
Equatorial Guinea	0.9	278,267	248,267	30,000	89
Eritrea	0.7	429,559	209,559	220,000	49

Country	Approved phase-out (ODP tonnes)	Funds approved (US\$)	Funds disbursed (US\$)	Balance (US\$)	Funds disbursed (%)
Eswatini (the Kingdom of)	8.3	971,931	876,931	95,000	90
Ethiopia	1.9	507,127	275,127	232,000	54
Fiji	2.0	607,700	283,480	324,220	47
Gabon	10.6	534,841	461,350	73,491	86
Gambia (the)	0.6	399,497	206,510	192,987	52
Georgia	3.5	691,739	499,125	192,615	72
Ghana	48.5	1,928,700	1,370,977	557,723	71
Grenada	0.5	381,289	188,289	193,000	49
Guatemala	5.1	592,834	537,710	55,124	91
Guinea	2.6	523,053	484,290	38,762	93
Guinea-Bissau	1.0	255,849	255,849	0	100
Guyana	0.7	412,995	300,772	112,223	73
Haiti	0.4	146,291	136,735	9,556	93
Honduras	8.8	841,337	761,883	79,454	91
India	1,151.3	67,593,898	52,302,769	15,291,129	77
Indonesia	194.1	15,947,737	12,851,369	3,096,368	81
Iran (Islamic Republic of)	312.5	19,640,170	15,312,756	4,327,414	78
Iraq	15.0	1,499,045	862,734	636,311	58
Jamaica	8.9	763,899	635,797	128,102	83
Jordan	60.7	6,438,035	4,757,343	1,680,692	74
Kenya	14.1	1,973,000	1,222,686	750,314	62
Kiribati	0.0	310,600	100,914	209,686	32
Kuwait	273.8	10,823,729	7,409,612	3,414,117	68
Kyrgyzstan	3.3	799,922	799,488	434	100
Lao People's Democratic Republic (the)	1.1	482,400	216,708	265,692	45
Lebanon	69.6	6,439,571	6,238,842	200,729	97
Lesotho	0.0	448,900	280,270	168,630	62
Liberia	3.7	566,595	315,000	251,595	56
Libya	37.6	2,137,328	836,255	1,301,073	39
Madagascar	12.8	866,154	557,999	308,155	64
Malawi	3.8	628,745	532,614	96,132	85
Malaysia	249.2	15,725,205	14,337,994	1,387,211	91
Maldives	0.6	1,081,613	1,081,613	0	100
Mali	5.2	486,723	486,523	200	100
Marshall Islands (the)	0.2	187,200	98,330	88,870	53
Mauritania	4.4	521,750	149,845	371,905	29
Mauritius	3.1	782,500	472,465	310,035	60
Mexico	577.5	27,243,986	23,232,936	4,011,050	85
Micronesia (Federated States of)	0.2	314,100	123,870	190,230	39
Mongolia	1.0	583,769	387,500	196,269	66
Montenegro	0.8	972,660	494,462	478,198	51
Morocco	27.0	1,994,926	1,325,967	668,959	66
Mozambique	3.1	332,361	220,253	112,108	66
Myanmar	0.4	280,000	165,089	114,911	59
Namibia	8.2	810,000	639,746	170,254	79
Nauru	0.0	139,450	63,854	75,596	46
Nepal	0.9	425,316	181,741	243,575	43
Nicaragua	3.3	470,355	341,772	128,582	73
Niger (the)	10.8	910,340	494,334	416,006	54
Nigeria	208.4	11,547,490	8,595,583	2,951,907	74
Niue	0.0	108,210	70,143	38,067	65

Country	Approved phase-out (ODP tonnes)	Funds approved (US\$)	Funds disbursed (US\$)	Balance (US\$)	Funds disbursed (%)
North Macedonia	2.6	1,241,950	1,094,700	147,250	88
Oman	18.2	1,403,281	909,734	493,546	65
Pakistan	177.8	12,946,694	9,204,169	3,742,525	71
Palau	0.2	303,000	131,000	172,000	43
Panama	11.6	1,217,662	1,064,912	152,750	87
Papua New Guinea	3.4	1,125,000	974,195	150,805	87
Paraguay	7.7	838,742	637,351	201,391	76
Peru	18.2	1,510,405	796,380	714,026	53
Philippines (the)	40.0	3,430,092	2,923,545	506,546	85
Qatar	14.7	1,390,941	1,054,650	336,291	76
Republic of Moldova (the)	0.6	384,057	252,054	132,002	66
Rwanda	1.9	437,166	317,299	119,867	73
Saint Kitts and Nevis	0.3	147,542	98,342	49,200	67
Saint Lucia	0.6	369,418	181,393	188,025	49
Saint Vincent and the Grenadines	0.2	421,951	272,344	149,607	65
Samoa	0.2	344,450	169,750	174,700	49
Sao Tome and Principe	0.1	154,727	154,727	0	100
Saudi Arabia	353.5	9,375,745	7,488,085	1,887,660	80
Senegal	3.6	873,514	581,251	292,263	67
Serbia	7.9	1,225,790	1,017,108	208,682	83
Seychelles	1.4	540,000	365,006	174,994	68
Sierra Leone	1.0	458,530	215,507	243,024	47
Solomon Islands	1.8	466,250	220,016	246,234	47
Somalia	1.8	385,574	368,808	16,766	96
South Africa	243.1	9,522,272	5,748,273	3,774,000	60
South Sudan	0.5	140,500	20,000	120,500	14
Sri Lanka	12.0	1,049,741	665,599	384,141	63
Sudan (the)	49.0	4,333,164	2,551,850	1,781,314	59
Suriname	0.6	177,109	142,109	35,000	80
Syrian Arab Republic	44.8	4,316,733	1,599,906	2,716,827	37
Thailand	255.0	18,424,008	17,218,285	1,205,723	93
Timor Leste	0.2	504,170	331,338	172,833	66
Togo	13.5	954,894	623,749	331,145	65
Tonga	0.1	324,050	162,353	161,697	50
Trinidad and Tobago	17.9	1,931,436	1,553,257	378,179	80
Tunisia	16.8	1,798,159	1,482,033	316,126	82
Türkiye	410.7	12,405,390	9,920,333	2,485,057	80
Turkmenistan	4.6	916,206	680,040	236,166	74
Tuvalu	0.1	168,450	87,519	80,931	52
Uganda	0.0	283,875	204,708	79,167	72
United Republic of Tanzania (the)	1.1	462,271	203,829	258,442	44
Uruguay	15.2	1,835,762	1,204,627	631,135	66
Vanuatu	0.3	360,600	147,081	213,519	41
Venezuela (Bolivarian Republic of)	33.3	2,749,725	2,463,813	285,911	90
Viet Nam	280.4	14,800,334	10,603,645	4,196,689	72
Yemen	11.6	159,529	159,529	0	100
Zambia	2.5	462,956	320,569	142,387	69
Zimbabwe	12.3	1,288,818	1,084,059	204,759	84
Region: ASP	0.0	940,000	336,022	603,978	36
Total	16,078.2	904,157,172	745,395,251	158,761,923	82

Annex V

REPORT ON THE HFC-RELATED INVESTMENT PROJECTS AND ENABLING ACTIVITIES FUNDED USING THE ADDITIONAL CONTRIBUTIONS BY A GROUP OF 17 NON-ARTICLE 5 PARTIES

Background

1. At its 84th meeting, in considering the Consolidated progress report of the Multilateral Fund as at 31 December 2018, the Executive Committee requested the Secretariat to submit, at the 85th meeting, an additional report on the HFC-related investment projects and enabling activities funded using the additional contributions by a group of 17 non-Article 5 Parties, identifying the countries for which the projects had been approved and 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, on the understanding that that information would be provided on an individual basis for the HFC-related investment projects and on an aggregated basis for the HFC enabling activities (decision 84/12(b)).

2. In response to decision 84/12(b), the Secretariat submitted to the 85th meeting¹ the additional report on the HFC-related investment projects and enabling activities using the updated format after incorporating relevant suggestions by the bilateral and implementing agencies.

3. Updated information on the HFC-related investment projects and enabling activities based on the progress report for 2022 submitted by the bilateral and implementing agencies is presented below.

Report on the HFC-related investment projects

4. The implementing agencies provided detailed status reports on the implementation of HFC-related investment projects for Argentina, Bangladesh, China, Lebanon, Mexico, and Thailand. Table 1 provides a summary of the individual projects.

Table 1. Summary of HFC-related investment projects

Country	Agency	Products	HFC used (mt)	Alternative used	CO ₂ -eq	Funds approved (US \$)	Funds disbursed (US \$)
Argentina	UNIDO	Domestic and commercial refrigerators	HFC-134a (96.60 mt)	R-600a/R-290	138,069	1,840,755	1,384,690
Bangladesh	UNDP	Domestic refrigerators and compressors	HFC-134a (230.63 mt)	R-600a	329,801	3,131,610	3,131,610
China	UNDP	Domestic refrigerator insulation foam	Cyclopentane + HFC-245fa (250.00 mt)	Cyclopentane + HFO-1233zd(E)	257,500	1,275,000	1,274,967
Lebanon	UNIDO	Domestic and commercial refrigerators	HFC-134a/R-404A (112.58 mt)	R-600a/R-290	245,860	1,053,858	1,039,874
Mexico	UNIDO	Commercial refrigerators	HFC-134a/R-404A (56.04 mt)	R-600a/R-290	124,657	1,018,123	25,466
Thailand	World Bank	Commercial refrigerators	HFC-134a (8.78 mt)	R-600a	12,555	183,514	183,514
Total			754.64		1,108,442	8,502,860	7,040,121

¹ UNEP/OzL.Pro/ExCom/85/9

5. Six projects (Argentina, Bangladesh, China, Lebanon, Mexico, and Thailand) have been completed. A detailed project report for Bangladesh and China has been provided by UNDP; for Argentina and Mexico, by UNIDO; and for Thailand, a report has been provided through the project completion report. The report for the remaining project is expected to be submitted by the agency by the end of November 2023.

Report on enabling activities for HFC phase-down

6. The Article 5 countries that received funding for enabling activities for HFC phase-down are listed in annex III to the present document, along with the status of ratification of the Kigali Amendment and the status of the HFC licensing system as required under Article 4B. The main objectives of the requests for funding enabling activities included *inter alia* support for early ratification of the Kigali Amendment; implementation of activities identified in paragraph 20 of decision XXVIII/2 aimed at initiating supporting institutional arrangements, the review of licensing systems, data reporting on HFC consumption and production, and demonstration of non-investment activities such as training and information outreach.

Overview of project implementation progress

7. Enabling activities are progressing well in almost all countries. So far, the Governments of Germany² and Italy,³ UNDP,⁴ UNEP,⁵ UNIDO,⁶ and the World Bank,⁷ have completed 127 projects relating to enabling activities by 2022.

8. A summary of the activities reported is given below:

- (a) Ratification of the Kigali Amendment: Stakeholders consultations on provisions of the Kigali Amendment and implications of its ratification; drafting legal documents; coordination and information outreach to different stakeholders; country assessment on HFC consumption trends and the impact of the Amendment on different stakeholders; training needs assessment for the servicing sector on the introduction of HFC-free technologies and safe use of alternative technologies and customs officers on monitoring and controlling of HFC trade under the Kigali Amendment; and participation in regional workshop on Kigali Amendment ratification;
- (b) Development and enforcement of licensing and quota system: Review and/or revision of legislations and regulations, including the import/export licensing and quota system, to include Kigali Amendment provisions; consultative workshops on development of

² Liberia, Papua New Guinea, and Seychelles

³ Lesotho, Maldives, Rwanda and Tunisia

⁴ Chile, China, Colombia, Costa Rica, Fiji, Jamaica, Lebanon, Paraguay, Peru, Trinidad and Tobago, and Uruguay

⁵ Afghanistan, Angola, the Bahamas, Benin, Bhutan, Bolivia (Plurinational State of), Botswana, Cabo Verde, Cambodia, Chad, Chile, China, the Comoros, Congo (Democratic Republic of), the Cook Islands, Cote d'Ivoire, Djibouti, Dominica, the Dominican Republic, Ecuador, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Georgia, Ghana, Guatemala, Guinea-Bissau, Guyana, Honduras, Kenya, Kiribati, Kyrgyzstan, the Lao People's Democratic Republic, Lesotho, Madagascar, Malawi, Maldives, Mali, Marshall Islands, Mauritania, Mexico, Micronesia (Federated States of), Mongolia, Mozambique, Myanmar, Namibia, Nauru, Nepal, Nigeria, Niue, Palau, Paraguay, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, South Sudan, Sri Lanka, the Sudan, Suriname, Syrian Arab Republic, Togo, Tonga, Turkmenistan, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Zambia, and Zimbabwe

⁶ Albania, Argentina, Armenia, Bosnia and Herzegovina, Burkina Faso, Cameroon, Chile, the Congo, Egypt, the Gambia, Grenada, Libya, Mexico, Montenegro, Morocco, Nicaragua, the Niger, North Macedonia, the Philippines, Serbia, Somalia, South Africa, the Sudan, Tunisia, Türkiye, Uruguay, Venezuela (Bolivarian Republic of), and Viet Nam

⁷ Indonesia, Malaysia and Thailand

licensing⁸ and quota system; and consultations on mechanisms for monitoring HFC supply and use in cooperation with customs and other stakeholders; during the review of Kigali HFC implementation plans (KIPs) that were submitted, the Secretariat noted that these activities facilitated the process of establishment of HFC licensing system and procedures for implementing the HFC quota system.

- (c) Support for enforcement of data collection and monitoring system: Development of a data collection system for HFCs; consultations with importers, traders and other stakeholders on data collection for HFCs and HFC blends; reporting and monitoring requirements; updating the Harmonized System (HS) codes for monitoring HFCs and HFC blends; regional coordination on establishing HS codes for HFCs; and procurement of equipment for identification of HFC refrigerants;
- (d) Implementation of other activities including demonstration and training: Training programmes for using low-global-warming potential (GWP) alternatives including flammable refrigerants with technical expert support; outreach programmes for public awareness on the Kigali Amendment, HFCs and HFC-free alternatives used in different applications, use of low-GWP alternatives, regulatory controls on the use of HFCs/HFC-free alternatives and monitoring use of HFCs/HFC-free substances, for the manufacturing and/or refrigeration servicing sector, Government and technical institutions and the public; and differential taxation based on GWP of refrigerants; and
- (e) Energy efficiency (EE) related activities: Coordination with EE institutions to include Kigali Amendment provisions while implementing energy efficient measures (e.g., minimum energy performance standards (MEPS), labelling programmes, EE improvement for refrigeration and air-conditioning (RAC) equipment, participation in cooling plans development to promote low-GWP energy efficient technologies, inputs during regional standards development on adopting energy efficient technologies);⁹ encouraging participation of EE stakeholders in meetings related to the Kigali Amendment; promoting EE relating to cooling in sectoral EE promotion measures; training on energy efficient RAC technologies; demonstrating savings to the users through the adoption of energy efficient equipment; and design of energy efficient RAC equipment and measures to enhance adoption of energy efficient technologies.

Key finding and lessons learned

9. During the implementation of enabling activities, countries gained experience on the Kigali Amendment ratification process and implementation of HFC phase-down enabling activities as summarized below:

- (a) Country assessment report for understanding HFC consumption trends helps stakeholders identify actions to be taken and their responsibilities in implementing these actions and provides recommendations for policy measures and technical assistance activities which would be used as a country roadmap for the implementation of the Kigali Amendment; guidelines on data collection methodologies and structured survey questionnaires/report

⁸ Each Party shall, by 1 January 2019 or within three months of the date of entry into force of this paragraph for it, whichever is later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed controlled substances in Annex F. Any Party operating under paragraph 1 of Article 5 that decides it is not in a position to establish and implement such a system by 1 January 2019 may delay taking those actions until 1 January 2021.

⁹ There are several new activities on EE improvement implemented by Governments with/without support from sources outside the Multilateral Fund. These activities are evolving based on national requirements. Thus, the information on types of project is illustrative and not exhaustive.

templates were prepared and communicated to all stakeholders involved; activities relating to cooling action plans and EE improvement with support from funding sources outside the Multilateral Fund also present opportunities for coordination and collaboration for project implementation to phase down HFCs; and interfaces with existing and planned HCFC phase-out management plans (HPMP) activities were internalized through analysis of the levels of consumption of HCFCs and HFCs, and consultations with industry stakeholders;

- (b) Strengthening licensing and quota system to include HFCs and HFC blends is a priority action for monitoring and reporting, which requires detailed consultations with relevant institutions; steps are being taken to ensure proper identification of HFCs and HFC blends, including finalisation of HS Codes and establishing a methodology/processes for accurate HFC data collection and reporting; implementation of online systems are appreciated by customs officers and importers, as it saves them time, costs and efforts; additional capacity building and training of officials handling data collection and monitoring is also a priority action; customs and enforcement training and strengthening border control points with identification equipment is essential for preventing illegal trade of HFCs; and overall, this component helped the countries in the development and implementation of a robust HFC licensing and quota system;
- (c) Continuous follow-up by the national ozone unit (NOU) with authorities responsible for the drafting, finalization and approval of HFC policies and regulations is essential. Given that HFC-related activities involve a new set of substances including blends and alternatives that require safe handling, additional efforts are required for capacity building of different national stakeholders for data collection, monitoring and reporting, and for awareness on newly enacted policies and regulations relating to HFCs. Further, interactions and coordination with energy efficiency related authorities are needed for inclusion of refrigerant type in energy efficiency standards, wherever feasible;
- (d) Significant efforts are required for approval of regulations for adopting low-GWP refrigerants especially relating to safety aspects; capacity building including training and technical information outreach is essential for sustainable adoption of low-GWP refrigerants that are flammable, toxic and operate under high pressure; and capacity building of training and technical institutions, and training and certification of service technicians for handling low-GWP refrigerants are essential; harnessing synergies with the existing activities under HPMPs can facilitate the introduction of sustainable and cost-effective alternative low-GWP technologies;
- (e) Introduction of MEPS, a progressive tax/duty system based on the EE of non-HFC-based RAC equipment and higher tax for products using high-GWP refrigerants creates incentives for the industry to move towards low-GWP and better energy efficient equipment; and import of second-hand RAC equipment that have lower EE levels affects the implementation of energy efficiency improvement measures, and also results in challenges in reducing dependence on HFCs (as many of these second-hand equipment use HFCs as refrigerants), though several information outreach, and capacity building activities are being implemented to minimise such imports;
- (f) Introduction of the national standard on certification of RAC technicians will contribute to lower emissions of HFCs from refrigeration and air conditioning equipment through good servicing practices and adopt safe practices while servicing equipment with flammable, toxic and high-pressure refrigerants;

- (g) Identification of local expertise for undertaking activities requires the continuous support from the NOU and for capacity building, taking into account country specific consumption needs/trends; and
- (h) Activities implemented so far have raised awareness among national stakeholders and the public regarding the importance and benefits of the Kigali Amendment, and provided insights into the HFC consumption patterns and importance of EE while phasing down HFCs, favouring the engagement of stakeholders for the preparation of KIPs and other interventions for monitoring and controlling HFC consumption.

Potential challenges

10. Some of the key challenges faced during the implementation of enabling activities are given below:

- (a) The COVID-19 pandemic posed challenges in completing the enabling activities within the timeframe approved in some Article 5 countries, particularly related to in-person stakeholder consultations for *inter alia* development and finalisation of regulations relating to HFCs, ratification of the Kigali Amendment, conclusion of training programmes planned under the project; by 2022, the recovery from challenges related to the COVID-19 pandemic was on track;
- (b) Delays in administrative clearances and approval process for ratification of the Kigali Amendment and finalisation of regulations posed challenges in certain Article 5 countries; close follow-up, support from decision makers in the Government and capacity building and information outreach for Government officials were helpful in addressing delays;
- (c) Difficult political and security situation in a few Article 5 countries resulted in delays in project implementation;
- (d) During implementation, consultations were held *inter alia* on HFC data collection and reporting requirements, use of HFCs and HFC-free alternatives in different applications (e.g., RAC, polyurethane foam). Providing training and technical support to service technicians for the safe adoption of low-GWP alternatives in the RAC sector was highlighted as an important issue. Implementation of training activities covering safe use of alternatives under the HPMPs has provided support to service technicians of HCFC-based equipment on safe use of low-GWP alternatives; implementation of regulations and other supportive measures for the safe use of low-GWP refrigerant-based equipment (e.g., national standards for import and use of RAC equipment, end-user incentive programmes for low-GWP refrigerant-based RAC equipment, certification programmes for service technicians on safe servicing practices) and information outreach and awareness activities undertaken during the HPMP on low-GWP environment friendly alternatives, have increased awareness of national stakeholders on low-GWP technologies mainly in the RAC sector; and
- (e) Due to frequent rotation of customs officers, regular training of these officers is crucial for effective enforcement of the HFC licensing and quota system and monitoring and control of HFCs. The enabling activities have helped Article 5 countries in initiating consultations and implementing some activities relating to monitoring HFC consumption and adopting the use of HFC-free alternatives and have initiated dialogues on approach that needs to be adopted for sustainable and energy efficient cooling while implementing HFC phase-down activities. Specific challenges that need to be addressed when implementing HFC phase-down and synergies that can be harnessed while implementing HCFC phase-out and HFC phase-down in the next few years would be clearer when Article 5 countries undertake

HFC phase-down strategy preparation after approval of the guidelines by the Executive Committee.

Funds approved and disbursed

11. As of 31 December 2022, the total funds approved for HFC investment projects and enabling activities under the additional contributions by a group of 17 donor countries amounted to US \$23,602,480, with a total disbursement of US \$20,632,509.
