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

CONSOLIDATED PROGRESS REPORT AS AT 31 DECEMBER 2021

Introduction

1. The consolidated progress report summarises progress and financial information provided by bilateral and implementing agencies² as of 31 December 2021, 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/91/1

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/91/13 to UNEP/OzL.Pro/ExCom/91/17).

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 91st meeting.

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

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; 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.

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 91st 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 2021 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.
- II. Projects approved for Annex F substances (HFCs) under the additional voluntary contributions for fast-start support for HFC phase-down.⁸

⁶ Excluding those that are considered in the relevant project proposal documents, under reports on projects with specific reporting requirements (UNEP/OzL.Pro/ExCom/91/18), or under tranche submission delays (UNEP/OzL.Pro/ExCom/91/21).

⁷ Ongoing projects are all projects that were under implementation as at 31 December 2021. 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.

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

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 2021 and cumulative since 1991

9. As of 31 December 2021, the Executive Committee had approved US \$3.87 billion in projects for bilateral and implementing agencies, consisting of US \$3.46 billion for the implementation of investment and non-investment projects, and US \$406.14 million for agency support costs, as shown in table 1.

Table 1. Approved funding by sector and agency as at 31 December 2021 (US \$)

Sector	UNDP	UNEP	UNIDO	World Bank	Bilateral	Total
Aerosol	26,054,837	882,689	34,397,921	22,984,030	2,051,914	86,371,391
Destruction	3,606,279	190,040	3,805,540	400,000	1,526,282	9,528,141
Fire fighting	0	0	0	0	0	0
Foam	173,140,713	0	89,067,239	136,059,064	8,093,730	406,360,746
Halon	4,996,973	767,640	1,780,369	70,221,038	6,147,361	83,913,381
HFC phase-down plan	3,183,000	2,218,000	2,574,000	405,000	560,000	8,940,000
Fumigants	20,081,241	2,614,366	78,028,741	5,837,887	18,226,925	124,789,159
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	378,675,934	70,596,786	371,348,627	210,870,717	72,352,556	1,103,844,620
Process agent	1,286,923	0	6,337,359	114,342,497	0	121,966,779
Production	1,056,000	0	52,655,745	378,896,283	10,000,000	442,608,028
Refrigeration	139,598,314	13,868,100	182,212,578	180,259,970	40,910,116	556,849,078
Several	67,812,809	273,001,282	19,820,441	29,413,466	4,759,718	394,807,716
Solvents	63,699,997	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	883,610,648	364,337,763	876,732,689	1,167,989,100	167,141,340	3,459,811,540
Agency support costs	121,270,538	30,104,814	116,489,330	122,146,142	16,130,410	406,141,234
Total	1,004,881,186	394,442,577	993,222,019	1,290,135,242	183,271,751	3,865,952,774

10. In 2021, 296 new projects and activities were approved. This level of funding is expected to result in the phase-out of 472,848 ODP tonnes and 521,729 CO₂-eq tonnes⁹ of consumption and production of controlled substances. Annex I shows the status of project implementation per country in 2021.

11. Table 2 shows the status of project implementation including fund disbursement per project type as at 31 December 2021. Annex II presents analytical information since 1991.

approved and disbursed and potential challenges in completing the projects and activities, is presented in Annex V to the present document.

⁹ From the 335.4 mt of HFC investment projects.

Table 2. Status of project implementation by type as at 31 December 2021

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	131	98	61,261,561	60,066,103	1,195,458	98
Institutional strengthening (IS)	1,355	1,206	89	160,142,318	142,336,225	17,806,093	89
Investment	3,192	2,949	92	2,735,692,801	2,580,254,223	155,438,579	94
Project preparation	1,855	1,680	91	97,717,604	85,633,293	12,084,310	88
Technical assistance	1,934	1,691	87	371,923,934	328,274,741	43,649,193	88
Training projects	324	324	100	25,806,763	25,806,763	0	100
Total	8,959	8,146	91	3,459,811,540	3,229,637,906	230,173,634	93

*Excludes closed and transferred projects.

**Excludes agency support costs.

12. Implementation of projects and activities by bilateral and implementing agencies for 2021 and cumulative since 1991 up to 31 December 2021, is summarized as follows:

- (a) **Phase-out:**¹⁰ In 2021, 2,870.1¹¹ ODP tonnes and 15,873 CO₂-eq tonnes of consumption of controlled substances were phased out and an additional 3,168.8 ODP tonnes of consumption of controlled substances were approved for phase-out. Since 1991, 292,086 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 472,848 ODP tonnes and 521,729 CO₂-eq tonnes from projects approved (excluding cancelled and transferred projects);
- (b) **Disbursements/approvals:** In 2021, US \$73.9 million was disbursed and US \$79.05 million was planned for disbursement based on the 2020 progress report, representing a rate of disbursement of 93 per cent of that planned. Cumulatively, US \$3.23 billion had been disbursed out of the total US \$3.46 billion approved for disbursement (excluding agency support costs), representing a rate of disbursement of 93 per cent. In 2021, US \$86.05 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 \$8.49/kg. The cost-effectiveness for the production sector was US \$4.64/kg. The average cost-effectiveness of investment projects per ODP tonne was US \$5.15/kg for completed projects and US \$35.61/kg for ongoing projects;¹³
- (d) **Number of projects completed:** In 2021, 315 projects were completed. Since 1991, 8,146 projects of the 8,959 projects (excluding closed or transferred projects) financed by the Multilateral Fund were completed, representing a completion rate of 91 per cent;
- (e) **Speed of delivery – investment projects:** Projects that were completed in 2021 were completed on average 52 months after their approval. Since 1991, the average time for

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

¹¹ Including 11.1 mt (15,873 CO₂-eq tonnes) phased out in 2021 for HFC-related projects.

¹² Including 335.4 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 \$59.36/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.

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 2021 were completed on average 33 months after their approval. Since 1991, the average time for completion of non-investment projects has been 37 months after their approval. First disbursements under these projects occurred, on average, 12 months after they had been approved;
- (g) **Project preparation:** Of the 1,855 project preparation activities approved by the end of 2021, 1,680 have been completed, leaving 175 ongoing activities. In 2021, 104 project preparation activities were approved and 52 were completed;
- (h) **Implementation delays:** A total of 813 projects were under implementation at the end of 2021, experiencing, on average, a delay of 13 months. One hundred and seven 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 2021, one HPPMP, 176 MYAs for HPMPs and two MYAs for control and phase-out of HFC-23 emissions were under implementation. Since 1991, 433 MYAs have been approved and 254 MYAs have been completed, representing a completion rate of 59 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
497,463	305,336	3,229,637,906	8.49	4.64	8,959	8,146	38	37	13	433	254

HFC-related projects

14. As of 31 December 2021, the Executive Committee had approved 123 HFC-related projects (including nine investment projects, 84 preparation projects and 30 enabling activities) under regular contributions amounting to US \$19,624,784 (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 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**	9	4	44	6,905,274	4,349,085	2,556,189	63
Project preparation	84	2	2	9,129,510	187,950	8,941,559	2

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.

Type	Number of projects			Funding (US \$)*			
	Approved	Completed	% completed	Approved	Disbursed	Balance	% disbursed
Technical assistance - Enabling activities	30	14	47	3,590,000	2,010,703	1,579,297	56
Total	123	20	16	19,624,784	6,547,738	13,077,046	33

* Excludes agency support costs.

** 213.3 mt (305,336 CO₂-eq tonnes) of 335.4 mt (521,729 CO₂-eq tonnes) of HFCs had been phased out.

15. As of the end of 2021, of the 123 projects, four investment projects, two project preparation and 14 enabling activities have been completed. Of the 16 ongoing enabling activities, extension of the completion dates for 15 was approved. The ongoing enabling activities are progressing at various stages of implementation and are expected to be completed in 2022 and 2023. The remaining five ongoing investment projects are expected to be completed in 2023. Eighty of the 82 ongoing project preparation activities are for Kigali HFC implementation plans (KIPs) and are expected to be completed in 2023 and 2024, and the remaining two are for investment projects.

16. Of the total cumulative funding approved of US \$19,624,784 (excluding agency support costs), US \$6,547,738 had been disbursed, representing a disbursement rate of 33 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 2021

18. Based on planned completion dates reported in the 2020 progress report, and the results reported in the 2021 progress reports, bilateral and implementing agencies completed 60 per cent of the projects they had planned to complete in 2021. One hundred and sixty-three of the 489 ongoing projects (excluding IS and project preparation) have revised their planned dates of completion since the 2020 progress report.

19. Bilateral and implementing agencies achieved an overall rate of disbursement of 93 per cent in 2021. On a country/region basis, 86 countries (including regions) had a disbursement rate of over 85 per cent while 30 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 92nd meeting, on 107 ongoing projects with implementation delays and 37 ongoing projects or tranches of MYAs 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 2021, the Executive Committee had approved 144 HFC-related projects under the additional voluntary contributions amounting to US \$23.83 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 2021

Type	Number of projects			Funding (US \$)*			
	Approved	Completed	% completed	Approved	Disbursed	Balance	% disbursed
Investment**	6	5	83	8,502,860	6,685,678	1,817,182	79
Project preparation	10	10	100	214,781	214,780	0	100
Technical assistance - Enabling activities	128	83	65	15,109,584	12,013,698	3,095,886	80
Total	144	98	68	23,827,225	18,914,156	4,913,069	79

* Excludes agency support costs.

** 657.9 mt (970,373 CO₂-eq tonnes) of 754.5 mt (1,108,442 CO₂-eq tonnes) of HFCs had been phased out.

22. Of the 144 projects approved by the end of 2021, five investment projects, 10 project preparation and 83 enabling activities have been completed. Extension of the completion dates of the remaining 45 ongoing enabling activities was approved; these activities are at various stages of implementation and are expected to be completed between 2022 and 2023. The remaining ongoing investment project is expected to be completed in 2022.
23. Cumulatively, US \$18,914,156 had been disbursed out of the total US \$23,827,225 approved for disbursement (excluding agency support costs), representing a disbursement rate of 79 per cent.
24. Further to the review process, six projects for enabling activities classified as projects with implementation delays and two ongoing projects for enabling activities recommended for status reports are included in Annex III of each progress report of the bilateral and implementing agencies.
25. Annex V provides a 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, which provides a comprehensive progress report on HFC activities funded using the additional contributions, in line with decision 84/12(b) and (c).

III. Secretariat comments

26. The Secretariat noted that due to continued challenges relating to the COVID-19 pandemic and other operational issues, some of the projects, tranches of HPMPs and enabling activities were delayed. In line with decision 82/11(b), extension for these projects to various dates up to 31 December 2023 need to be approved by the Executive Committee. The recommendations for the extension of completion dates of HPMPs for Barbados (UNEP/UNDP), Botswana (UNIDO), the Congo (UNEP/UNIDO), Libya (UNIDO), Somalia (UNIDO), the Sudan (UNIDO) and Zimbabwe (Germany), and of a project for enabling activities for Liberia (Germany) are addressed as applicable, in the progress reports of the respective implementing agencies, or in the respective project proposal documents.
27. The agencies have provided 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. The main issues identified include delays in procurement and distribution of equipment mainly due to the specialised technical nature of many equipment; slower market off-take 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. In 2021, countries were still facing challenges in implementing in-person activities due to restrictions related to the COVID-19 pandemic; in 2022, the situation has been gradually improving, and implementation of activities is progressing at a faster pace.

IV. Recommendation

28. The Executive Committee may wish to note:
- (a) The consolidated progress report of the Multilateral Fund as at 31 December 2021 contained in document UNEP/OzL.Pro/ExCom/91/12;
 - (b) With appreciation, the efforts undertaken by bilateral and implementing agencies in reporting their 2021 activities; and
 - (c) That the bilateral and implementing agencies would report, at the 92nd meeting, on 113 projects with implementation delays and 39 ongoing projects or tranches of multi-year agreements recommended for additional status reports, as contained in Annex III of each individual progress report of bilateral and implementing agencies.

Annex I

OVERVIEW OF STATUS OF PROJECT IMPLEMENTATION
PER COUNTRY FOR 2021

1. Table 1 of Annex I presents the status of project implementation by country for 2021 in achieved phased out, planned and achieved disbursements and project completion.

Table 1. Status of project implementation for 2021

Country	Phased out in 2021 (ODP tonnes)	Phased out in 2021 (CO ₂ -eq tonnes)	Estimated funds disbursed in 2021 (US \$)	Funds disbursed in 2021 (US \$)	Percentage of funds disbursed over estimation in 2021	Percentage of planned projects completed in 2021**
Afghanistan	0.0		147,792	18,562	13	100
Albania	0.0		65,661	97,642	149	100
Algeria	0.0		382,401	389,298	102	100
Angola	5.2		129,337	19,150	15	33
Antigua and Barbuda	0.0		60,000	0	0	0
Argentina	1.4		284,091	255,706	90	
Armenia	0.0		68,891	155,337	225	100
Bahamas (the)	0.6		75,475	69,337	92	67
Bahrain	0.0		163,278	313,643	192	100
Bangladesh	0.0		819,859	567,621	69	0
Barbados	0.0		82,280	115,608	141	0
Belize	0.0		131,598	138,661	105	100
Benin	0.0		55,163	109,486	198	33
Bhutan	0.0		57,078	77,603	136	
Bolivia (Plurinational State of)	0.0		77,568	103,167	133	100
Bosnia and Herzegovina	0.2		71,502	60,832	85	17
Botswana	0.5		242,811	14,121	6	14
Brazil	72.9		4,241,879	1,653,095	39	0
Brunei Darussalam	0.0		83,452	27,970	34	33
Burkina Faso	0.0		53,056	131,572	248	60
Burundi	0.3		136,471	220,457	162	100
Cabo Verde	0.0		34,250	115,972	339	100
Cambodia	0.0		74,829	143,548	192	100
Cameroon	0.7		153,580	231,816	151	100
Central African Republic (the)	0.0		60,000	0	0	0
Chad	0.0		52,520	129,981	247	67
Chile	1.0		417,962	264,031	63	50
China	2,106.8		23,616,435	20,782,627	88	79
Colombia	63.4		871,277	1,769,029	203	100
Comoros (the)	0.0		27,368	86,103	315	67
Congo (the)	1.8		63,400	66,158	104	60
Cook Islands (the)	0.0		90,923	44,165	49	50
Costa Rica	0.0		126,541	155,021	123	
Cote d'Ivoire	0.4		221,835	454,171	205	40
Cuba	0.0		231,234	144,689	63	75
Democratic People's Republic of Korea (the)	0.0		3	1	24	
Democratic Republic of the Congo (the)	2.2		73,590	88,231	120	100
Djibouti	0.0		47,689	152,069	319	67
Dominica	0.0		136,418	5,454	4	0
Dominican Republic (the)	0.0		428,330	357,957	84	100

Country	Phased out in 2021 (ODP tonnes)	Phased out in 2021 (CO ₂ -eq tonnes)	Estimated funds disbursed in 2021 (US \$)	Funds disbursed in 2021 (US \$)	Percentage of funds disbursed over estimation in 2021	Percentage of planned projects completed in 2021**
Ecuador	0.5		153,611	216,795	141	100
Egypt	61.5		3,095,999	3,717,204	120	67
El Salvador	0.0		221,866	119,025	54	86
Equatorial Guinea	0.0		34,809	88,756	255	50
Eritrea	0.0		41,750	115,973	278	75
Eswatini (the Kingdom of)	0.0		77,000	94,958	123	100
Ethiopia	0.7		154,500	154,303	100	100
Fiji	0.0		77,564	54,779	71	50
Gabon	0.0		44,500	50,000	112	25
Gambia (the)	0.0		89,150	109,813	123	100
Georgia	2.1		98,440	154,634	157	100
Ghana	9.9		167,825	242,427	144	100
Grenada	0.0		57,500	100,145	174	50
Guatemala	0.2		135,129	151,356	112	100
Guinea	0.2		158,250	327,012	207	
Guinea-Bissau	0.0		37,300	81,536	219	50
Guyana	0.0		157,129	78,351	50	0
Haiti	0.2		164,718	74,114	45	50
Honduras	1.5		139,011	141,352	102	67
India	346.6		7,689,628	14,023,508	182	100
Indonesia	10.2		1,513,563	744,447	49	0
Iran (Islamic Republic of)	16.0		1,996,377	1,034,962	52	67
Iraq	6.6		658,230	794,530	121	100
Jamaica	0.0		114,275	66,035	58	80
Jordan	8.7		876,772	555,723	63	0
Kenya	0.0		154,929	154,313	100	100
Kiribati	0.0		97,634	35,741	37	67
Kuwait	0.0		1,260,213	366,600	29	27
Kyrgyzstan	0.0		185,975	340,178	183	100
Lao People's Democratic Republic (the)	0.0		108,913	26,102	24	0
Lebanon	1.9		309,221	485,572	157	100
Lesotho	0.0		96,846	155,134	160	100
Liberia	0.0		70,050	90,966	130	40
Libya	0.0		65,000	159,540	245	0
Madagascar	1.4		58,000	91,100	157	50
Malawi	0.0		130,750	245,308	188	100
Malaysia	9.0		891,540	470,118	53	100
Maldives	0.0		79,102	101,912	129	100
Mali	0.0		64,815	67,800	105	25
Marshall Islands (the)	0.0		71,030	49,578	70	50
Mauritania	0.0		61,500	105,000	171	0
Mauritius	0.0		70,844	96,588	136	100
Mexico	23.1		1,773,829	649,312	37	29
Micronesia (Federated States of)	0.0		100,621	58,572	58	50
Mongolia	0.0		73,991	72,485	98	100
Montenegro	0.1		43,000	79,368	185	100
Morocco	0.0		155,000	156,460	101	50
Mozambique	0.3		99,465	161,247	162	17
Myanmar	0.0		104,761	26,874	26	0

Country	Phased out in 2021 (ODP tonnes)	Phased out in 2021 (CO ₂ -eq tonnes)	Estimated funds disbursed in 2021 (US \$)	Funds disbursed in 2021 (US \$)	Percentage of funds disbursed over estimation in 2021	Percentage of planned projects completed in 2021**
Namibia	0.0		98,943	65,755	66	50
Nauru	0.0		90,016	18,627	21	67
Nepal	0.0		127,217	19,999	16	0
Nicaragua	0.2		105,060	59,047	56	100
Niger (the)	0.0		107,030	232,408	217	25
Nigeria	30.6		992,835	807,087	81	17
Niue	0.0		45,789	16,960	37	100
North Macedonia	0.0		65,000	144,685	223	100
Oman	3.1		166,870	249,599	150	100
Pakistan	0.0		1,266,631	1,397,045	110	40
Palau	0.0		84,873	43,766	52	100
Panama	5.7		293,709	362,214	123	100
Papua New Guinea	0.0		111,825	144,379	129	50
Paraguay	0.0		104,325	115,795	111	60
Peru	0.0		155,156	126,536	82	0
Philippines (the)	0.0		75,000	245,942	328	
Qatar	0.0		179,627	90,000	50	100
Republic of Moldova (the)	0.0		84,106	115,848	138	83
Rwanda	0.0		94,701	163,133	172	100
Saint Kitts and Nevis	0.0		83,700	58,813	70	0
Saint Lucia	0.0		74,335	85,858	116	75
Saint Vincent and the Grenadines	0.0		119,974	0	0	0
Samoa	0.0		67,220	51,000	76	100
Sao Tome and Principe	0.0		31,257	46,860	150	75
Saudi Arabia	33.7		561,013	298,231	53	30
Senegal	0.0		78,309	218,221	279	100
Serbia	0.0		161,005	181,447	113	100
Seychelles	0.0		39,754	86,084	217	100
Sierra Leone	0.0		58,234	136,511	234	80
Solomon Islands	0.0		127,007	65,977	52	0
Somalia	0.0		14,605	50,357	345	67
South Africa	4.0		174,001	240,036	138	0
South Sudan	0.0		114,000	29,958	26	0
Sri Lanka	5.4		221,310	84,456	38	100
Sudan (the)	0.0		128,981	178,704	139	0
Suriname	0.0		96,401	2,020	2	25
Syrian Arab Republic	12.9		253,482	554,442	219	67
Thailand	0.0		662,800	215,030	32	0
Timor-Leste	0.0		66,606	68,542	103	0
Togo	0.0		24,000	29,048	121	50
Tonga	0.0		101,337	21,620	21	50
Trinidad and Tobago	0.0		244,291	181,805	74	100
Tunisia	0.0		320,301	507,663	158	100
Türkiye	0.0		270,000	114,317	42	50
Turkmenistan	0.0		60,001	67,763	113	100
Tuvalu	0.0		70,650	100,682	143	67
Uganda	0.0		98,318	162,133	165	100
United Republic of Tanzania (the)	0.0		65,500	70,502	108	60
Uruguay	0.0		366,533	304,780	83	40

Country	Phased out in 2021 (ODP tonnes)	Phased out in 2021 (CO ₂ -eq tonnes)	Estimated funds disbursed in 2021 (US \$)	Funds disbursed in 2021 (US \$)	Percentage of funds disbursed over estimation in 2021	Percentage of planned projects completed in 2021**
Vanuatu	0.0		88,870	42,305	48	50
Venezuela (Bolivarian Republic of)	0.0		124,201	102,107	82	
Viet Nam	5.4		1,608,581	1,006,917	63	100
Yemen	0.0		169,999	0	0	0
Zambia	0.0		92,000	103,046	112	75
Zimbabwe	11.1*	15,873*	304,580	176,224	58	100
Region: ASP	0.0		290,230	99,137	34	
Global	0.0		9,131,205	6,669,470	73	80
Grand total	2,870.1	15,873	79,053,056	73,898,388	93	60

* 11.1 mt (15,873 CO₂-eq tonnes) phased out in 2021 for HFC-related projects.

** For projects that were planned to be completed in 2021.

Annex II

OVERVIEW OF STATUS OF PROJECT IMPLEMENTATION
AS AT 31 DECEMBER 2021

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	128,630,290	128,630,290	0	100
1995	355	355	100	111,188,309	111,188,309	0	100
1996	257	257	100	83,813,027	83,813,027	0	100
1997	532	532	100	154,314,938	154,314,940	-1	100
1998	422	422	100	99,680,368	99,680,367	1	100
1999	546	546	100	152,710,736	152,710,736	0	100
2000	426	426	100	109,540,523	109,540,522	2	100
2001	427	427	100	130,139,750	130,139,752	-1	100
2002	358	358	100	162,045,816	162,045,816	1	100
2003	247	247	100	157,043,468	157,043,468	0	100
2004	271	271	100	162,388,007	162,388,008	-1	100
2005	255	255	100	180,276,023	180,276,021	2	100
2006	261	261	100	120,847,323	120,847,323	0	100
2007	213	213	100	120,144,867	120,084,047	60,820	100
2008	354	354	100	121,604,803	121,593,494	11,309	100
2009	320	320	100	73,755,031	73,085,673	669,358	99
2010	227	226	100	84,438,233	83,808,408	629,825	99
2011	264	264	100	201,779,314	201,898,990	-119,676	100
2012	182	171	94	101,063,070	99,173,929	1,889,142	98
2013	184	182	99	125,716,124	125,063,131	652,993	99
2014	223	211	95	92,502,404	90,199,951	2,302,453	98
2015	379	349	92	158,031,696	142,921,174	15,110,522	90
2016	240	202	84	115,066,416	96,015,120	19,051,295	83
2017	124	96	77	63,901,068	59,810,091	4,090,977	94
2018	271	198	73	121,141,435	80,345,994	40,795,442	66
2019	226	104	46	49,512,520	23,146,686	26,365,834	47
2020	259	58	22	70,074,703	37,102,525	32,972,179	53
2021	296	1	0	86,050,543	359,384	85,691,159	0
Total	8,959	8,146	91	3,459,811,540	3,229,637,906	230,173,634	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, 8,146 projects of the 8,959 projects (excluding closed or transferred projects) financed by the Multilateral Fund were completed, representing a completion rate of 91 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	2,949	2,466,500,094	99	274,856	204,189	14	38	5.15
Region								
Africa	510	165,776,819	100	18,310	0	12	39	9.05
Asia & Pacific	1,552	1,820,891,133	99	213,717	184,239	16	38	4.58
Europe	161	72,422,217	100	8,050	175	10	33	8.81
Latin America and Caribbean	726	407,409,925	99	34,779	19,775	14	37	7.47
Global	n/a	0	0	0	0	n/a	n/a	n/a
Sector								
Aerosol	127	82,501,518	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	376,906,701	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	804	743,500,075	98	54,389	10,988	12	41	11.37
Process agent	30	120,252,627	100	19,573	52,162	10	27	1.68
Production	62	416,154,975	100	0	99,081	9	20	4.20
Refrigeration	617	442,035,622	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	1,837	950,006,128	99	96,876	17,381	11	36	8.31
National implementation	1,112	1,516,493,967	100	177,981	186,808	20	40	4.16
Disbursement method								
During implementation	2,830	2,047,136,681	100	267,471	199,719	14	38	4.38
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	32	387,560,954	98	2,773	3,970	8	59	57.47

*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, 99.3 per cent of the funds approved for completed investment projects have been disbursed.³ Since 1991, 2,949 investment projects have been completed at a total value of US \$2.47 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, 3,517 non-investment projects have been completed at a total value of US \$546.27 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	3,517	546,271,625	99	12	37
Region					
Africa	1,082	92,836,973	100	12	38
Asia & Pacific	1,060	156,112,270	100	13	39
Europe	231	21,862,053	100	9	33
Latin America and Caribbean	830	97,271,691	99	13	41
Global	314	178,188,637	99	6	22
Sector					
Aerosol	31	2,461,265	100	11	36
Destruction	16	7,205,265	100	11	63
Fire fighting	0	0	0	n/a	n/a
Foam	34	10,543,567	100	14	36
Fumigants	137	21,224,434	100	9	39
Halon	82	11,238,156	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	651	60,162,691	100	13	40
Process agent	0	0	0	n/a	n/a
Production	1	40,000	100	4	4
Refrigeration	637	90,588,032	100	16	50
Several	1,892	339,279,141	99	10	32
Solvents	34	3,398,782	100	11	27
Sterilant	0	0	0	n/a	n/a
Implementation characteristics					
Agency implementation	2,868	412,881,526	99	11	37
National implementation	649	133,390,099	100	14	40
Disbursement method					
During implementation	3,482	533,866,228	99	12	38
After implementation	26	2,325,462	100	14	21
Retroactive funding	1	146,698	100	3	83
Country to final beneficiaries	8	9,933,237	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, 37 months after they were approved. This figure is influenced by the large number of projects (1,892 of 3,517) 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 63 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 (40 months).

Completed project preparation activities

8. Table 4 presents data on cumulative completed project preparation activities. Since 1991, 1,680 preparation activities have been completed at a total value of US \$84.91 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	1,680	84,913,556	99	7	23
Region					
Africa	420	14,175,096	99	7	24
Asia & Pacific	643	42,349,393	99	8	23
Europe	122	5,098,660	100	7	22
Latin America and Caribbean	476	21,679,981	99	7	21
Global	19	1,610,425	100	5	16
Sector					
Aerosol	45	1,254,278	100	6	17
Destruction	18	818,719	100	13	40
Fire fighting	0	0	0	n/a	n/a
Foam	257	10,942,262	100	5	20
Fumigants	118	2,993,886	100	5	17
Halon	27	836,728	100	6	19
HFC phase-down plan	0	0	0	n/a	n/a
Multiple sectors	3	139,440	100	3	34
Other	2	240,747	100	11	35
Phase-out plan	465	27,688,350	98	10	31
Process agent	9	694,384	100	9	19
Production	12	1,402,145	100	7	15
Refrigeration	383	13,800,528	100	7	21
Several	283	21,969,992	100	4	15
Solvents	57	2,127,098	100	6	25
Sterilant	1	5,000	100	1	9
Implementation characteristics					
Agency implementation	1,466	70,244,481	99	7	21
National implementation	214	14,669,075	99	11	30
Disbursement method					
During implementation	1,670	83,312,095	99	7	23
After implementation	6	899,752	100	7	21
Retroactive funding	0	0	0	n/a	n/a
Country to final beneficiaries	4	701,709	100	5	29

9. The average time from approval to first disbursement for project preparation activities is seven months. Preparation activities have been completed, on average, 23 months after they were approved. Overall, 99.3 per cent of the funds approved for completed preparation activities have been disbursed.

Ongoing projects

10. A total of 813 projects were under implementation at the end of 2021. 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	243	252,822,270	46	145	60	10	54	28	35.61
Region									
Africa	78	38,157,481	33	44	56	10	56	25	87.24
Asia & Pacific	100	177,866,327	51	59	59	11	53	33	28.61
Europe	16	5,169,725	26	12	75	9	55	26	86.02
Latin America and Caribbean	49	31,628,737	32	30	61	10	52	24	81.80
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	74	2	100	10	88	67	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	0	0	0	0	0	n/a	n/a	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	235	223,276,635	41	141	60	10	53	27	32.18
Process agent	0	0	0	0	0	n/a	n/a	n/a	n/a
Production	3	25,010,909	77	1	33	16	75	43	n/a
Refrigeration	3	2,064,564	74	1	33	11	65	40	15.50
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	161	122,506,182	35	114	71	10	60	29	43.10
National implementation	82	130,316,088	56	31	38	11	42	20	30.61
Disbursement method									
During implementation	232	142,446,586	31	137	59	10	54	27	63.32
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	11	110,375,684	65	8	73	11	64	49	22.75

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

12. There are currently 243 investment projects under implementation at a total value of over US \$252.82 million. Around 46 per cent of the funds have already been disbursed. The overall average cost-effectiveness of ongoing investment projects is US \$35.61/kg ODP to be phased out. The average number of months from approval to first disbursement is 10 months. The average duration of an ongoing investment project is 54 months. Typically, ongoing investment projects are completed 28 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	395	79,201,768	26	178	45	13	40	11
Region								
Africa	105	12,919,834	25	36	34	15	35	9
Asia & Pacific	162	36,268,009	30	79	49	12	44	11
Europe	24	2,309,106	32	13	54	5	30	4
Latin America and Caribbean	99	16,907,481	32	49	49	16	43	15
Global	5	10,797,338	1	1	20	14	23	10
Sector								
Aerosol	0	0	0	0	0	n/a	n/a	n/a
Destruction	1	1,490,600	92	1	100	13	103	59
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	0	0	0	0	0	n/a	n/a	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	223	42,036,033	29	97	43	14	44	11
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	2,108,438	49	2	100	9	70	51
Several	169	33,566,697	16	78	46	13	35	10
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	328	58,065,591	23	133	41	14	40	11
National implementation	67	21,136,177	32	45	67	12	40	13
Disbursement method								
During implementation	395	79,201,768	26	178	45	13	40	11
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 395 non-investment projects under implementation at a total value of US \$79.2 million, with 26 per cent of the funds already disbursed. The average number of months from approval to first disbursement is 13 months. On average, ongoing non-investment projects are completed 40 months from the date of approval, which represents a delay of 11 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	175	12,525,000	1,000,349	8	14	32	8
Region							
Africa	82	4,790,000	581,850	12	16	36	12
Asia & Pacific	53	3,586,000	269,096	8	9	28	3
Europe	7	739,000	12,923	2	3	26	1
Latin America and Caribbean	33	3,410,000	136,481	4	12	29	5
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	3	260,000	120,992	47	10	63	43
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	80	8,940,000	47,668	1	3	26	1
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	88	3,035,000	777,539	26	15	37	13
Process agent	0	0	0	0	n/a	n/a	n/a
Production	0	0	0	0	n/a	n/a	n/a
Refrigeration	4	290,000	54,151	19	10	30	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	137	8,579,500	969,216	11	13	33	10
National implementation	38	3,945,500	31,133	1	17	26	1
Disbursement method							
During implementation	175	12,525,000	1,000,349	8	14	32	8
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 175 project preparation activities under implementation at a total value of US \$12.53 million, with 8 per cent of the funds already disbursed. The average number of months from approval to first disbursement is 14 months. On average, ongoing preparation activities are completed 32 months from the date of approval, which represents a delay of eight months.

Closed projects

17. Table 8 presents a summary of closed projects. Since 1991, 274 projects have been closed at a total value of US \$14.87 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	0	673	636
UNEP	14	21,000	21,000	0	12	12
UNIDO	67	6,347,808	6,347,808	0	1,808	367
World Bank	95	1,373,519	1,373,519	0	657	581
Bilaterals	17	227,901	227,901	0	223	0
Total	274	14,865,620	14,865,620	0	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 2021, the Executive Committee has approved 267 HFC-related projects and activities in 144 countries, consisting of 94 requests for project preparation, 15 investment projects and 158 enabling activities, amounting to US \$43.45 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 for (US \$)		
				Enabling activities	Investment projects	Preparation projects
Afghanistan	1			150,000		
Albania	1	Yes	√	94,978		130,000
Algeria	1			150,000		
Angola	1	Yes	Pending	150,000		170,000
Antigua and Barbuda	1					
Argentina	1	Yes	√	250,000	3,368,606	294,816
Armenia	1	Yes	√	149,639		170,000
Bahamas (the)	1			95,000		
Bahrain	2			150,000		
Bangladesh	1	Yes	√	150,000	3,131,610	
Barbados	1	Yes	√			
Belize	1			95,000		
Benin	1	Yes	√	150,000		
Bhutan	1	Yes	√	50,000		100,000
Bolivia (Plurinational State of)	1	Yes	√	150,000		170,000
Bosnia and Herzegovina	1	Yes	√	95,000		
Botswana	1	Yes	Pending	150,000		
Brazil	1					
Brunei Darussalam	1			150,000		
Burkina Faso	1	Yes	√	150,000		190,000
Burundi	1	Yes	Pending	150,000		
Cabo Verde	1	Yes	√	95,000		
Cambodia	1	Yes	√	147,918		170,000
Cameroon	1	Yes	√	150,000		190,000
Central African Republic (the)	1					
Chad	1	Yes	√	150,000		
Chile	1	Yes	√	150,000		190,000
China	1	Yes	√	250,000	1,275,000	47,687
Colombia	1	Yes	√	250,000		220,000
Comoros (the)	1	Yes	√	50,000		
Congo (the)	1	Yes	Pending	150,000		
Cook Islands (the)	1	Yes	√	50,000		

Country	Group	Ratification of Kigali Amendment	Implementation of licensing system	Funds approved for (US \$)		
				Enabling activities	Investment projects	Preparation projects
Costa Rica	1	Yes	√	150,000		170,000
Côte d'Ivoire	1	Yes	Pending	150,000		
Cuba	1	Yes	√	150,000		170,000
Democratic People's Republic of Korea (the)	1	Yes	√			
Democratic Republic of the Congo (the)	1			150,000		
Djibouti	1			50,000		
Dominica	1			50,000		
Dominican Republic (the)	1	Yes	√	150,000	129,801	201,572
Ecuador	1	Yes	√	150,000		219,937
Egypt	1			250,000		17,964
El Salvador	1	Yes	Pending	150,000		170,000
Equatorial Guinea	1			150,000		
Eritrea	1			95,000		
Eswatini	1	Yes	√	95,000		130,000
Ethiopia	1	Yes	Pending	95,000		
Fiji	1	Yes	√	150,000		130,000
Gabon	1	Yes	√	150,000		
Gambia (the)	1	Yes	√	95,000		
Georgia	1			95,000		
Ghana	1	Yes	√	149,425		190,000
Grenada	1	Yes	√	46,491		100,000
Guatemala	1			150,000		
Guinea	1	Yes	√	150,000		
Guinea-Bissau	1	Yes	√	95,000		
Guyana	1			95,000		
Haiti	1			95,000		
Honduras	1	Yes	√	150,000		
India	2	Yes	√	250,000		
Indonesia	1			246,666		
Iran (Islamic Republic of)	2			250,000		
Iraq	2			250,000		
Jamaica	1			150,000		
Jordan	1	Yes	√	150,000	1,637,610	190,000
Kenya	1			150,000		
Kiribati	1	Yes	√	50,000		
Kuwait	2			250,000		
Kyrgyzstan	1	Yes	√	95,000		130,000
Lao People's Democratic Republic (the)	1	Yes	√	95,000		130,000
Lebanon	1	Yes	√	150,000	1,053,858	247,894
Lesotho	1	Yes	Pending	94,532		130,000
Liberia	1	Yes	Pending	95,000		130,000
Libya	1			150,000		
Madagascar	1			150,000		
Malawi	1	Yes	√	150,000		170,000
Malaysia	1	Yes	√	250,000		220,000
Maldives	1	Yes	√	95,000		130,000
Mali	1	Yes	Pending	150,000		
Marshall Islands (the)	1	Yes	√	50,000		

Country	Group	Ratification of Kigali Amendment	Implementation of licensing system	Funds approved for (US \$)		
				Enabling activities	Investment projects	Preparation projects
Mauritania	1			150,000		
Mauritius	1	Yes	√	150,000		170,000
Mexico	1	Yes	√	249,999	4,201,181	314,512
Micronesia (Federated States of)	1	Yes	√	50,000		
Mongolia	1	Yes	√	92,866		
Montenegro	1	Yes	√	49,973		100,000
Morocco	1	Yes	Pending	150,000		
Mozambique	1	Yes	Pending	150,000		
Myanmar	1			95,000		
Namibia	1	Yes	√	150,000		170,000
Nauru	1			50,000		
Nepal	1			95,000		
Nicaragua	1	Yes	√	150,000		170,000
Niger (the)	1	Yes	√	150,000		170,000
Nigeria	1	Yes	√	250,000		220,000
Niue	1	Yes	√	50,000		
North Macedonia	1	Yes	√	95,000		130,000
Oman	2			150,000		
Pakistan	2			250,000		
Palau	1	Yes	√	25,000		
Panama	1	Yes	√	150,000		190,000
Papua New Guinea	1			95,000		
Paraguay	1	Yes	√	150,000		170,000
Peru	1	Yes	√	147,582		190,000
Philippines (the)	1			225,992		
Qatar	2			150,000		
Republic of Moldova (the)	1			50,000		
Rwanda	1	Yes	√	95,000		130,000
Saint Kitts and Nevis	1			50,000		
Saint Lucia	1	Yes	√	95,000		
Saint Vincent and the Grenadines	1			50,000		
Samoa	1	Yes	√	50,000		
Sao Tome and Principe	1	Yes	Pending	95,000		
Saudi Arabia	2			250,000		
Senegal	1	Yes	√	150,000		190,000
Serbia	1	Yes	√	150,000		
Seychelles	1	Yes	√	95,000		
Sierra Leone	1	Yes	√	95,000		130,000
Solomon Islands	1	Yes	Pending	95,000		
Somalia	1	Yes	Pending	150,000		
South Africa	1	Yes	√	240,000		220,000
South Sudan	1			95,000		
Sri Lanka	1	Yes	√	150,000		170,000
Sudan (the)	1			150,000		30,000
Suriname	1			95,000		
Syrian Arab Republic	1	Yes	√	250,000		220,000
Thailand	1			250,000	183,514	30,000
Timor-Leste	1			50,000		
Togo	1	Yes	√	150,000		
Tonga	1	Yes	√	48,745		

Country	Group	Ratification of Kigali Amendment	Implementation of licensing system	Funds approved for (US \$)		
				Enabling activities	Investment projects	Preparation projects
Trinidad and Tobago	1	Yes	√	150,000		190,000
Tunisia	1	Yes	√	149,990		190,000
Türkiye	1	Yes	Pending	250,000		
Turkmenistan	1	Yes	√	150,000		170,000
Tuvalu	1	Yes	√	50,000		
Uganda	1	Yes	√	50,000		100,000
United Republic of Tanzania (the)	1	Yes	Pending	95,000		
Uruguay	1	Yes	√	150,000		190,000
Vanuatu	1	Yes	√	50,000		
Venezuela (Bolivarian Republic of)	1			250,000		
Viet Nam	1	Yes	√	249,238		220,000
Yemen	1					
Zambia	1	Yes	Pending	95,000		130,000
Zimbabwe	1			140,551	426,954	19,909
Total				18,699,584	15,408,134	9,344,290

Annex IV

HCFC PHASE-OUT MANAGEMENT PLAN BY COUNTRY
AS AT 31 DECEMBER 2021

Country	Approved phase-out (ODP tonnes)	Funds approved (US\$)	Funds disbursed (US\$)	Balance (US\$)	Funds disbursed (%)
Afghanistan	9.4	989,524	520,758	468,766	53
Albania	2.1	440,813	316,942	123,871	72
Algeria	13.5	1,808,804	1,230,178	578,626	68
Angola	10.8	989,326	525,786	463,540	53
Antigua and Barbuda	0.0	27,235	27,235	0	100
Argentina	142.4	15,345,624	11,541,482	3,804,142	75
Armenia	3.5	678,536	675,496	3,040	100
Bahamas (the)	1.6	308,025	257,045	50,980	83
Bahrain	39.0	1,446,624	883,125	563,499	61
Bangladesh	32.3	4,052,216	1,996,866	2,055,350	49
Barbados	1.3	250,178	208,178	42,000	83
Belize	1.1	442,704	236,000	206,704	53
Benin	8.3	625,778	565,777	60,000	90
Bhutan	0.3	423,000	418,359	4,641	99
Bolivia (Plurinational State of)	2.7	479,557	330,856	148,701	69
Bosnia and Herzegovina	7.2	1,064,785	854,452	210,333	80
Botswana	3.8	810,000	305,810	504,190	38
Brazil	531.7	42,712,769	32,126,356	10,586,413	75
Brunei Darussalam	1.8	475,100	281,213	193,887	59
Burkina Faso	3.9	628,630	620,816	7,814	99
Burundi	1.0	296,692	294,353	2,339	99
Cabo Verde	0.1	332,834	149,834	183,000	45
Cambodia	2.9	1,150,000	1,074,118	75,882	93
Cameroon	34.7	2,441,520	1,333,015	1,108,505	55
Central African Republic (the)	0.5	64,001	64,001	0	100
Chad	5.7	554,542	489,542	65,000	88
Chile	77.1	5,543,723	3,978,091	1,565,632	72
China	8,087.8	423,853,786	362,369,778	61,484,008	85
Colombia	193.8	12,451,589	10,886,746	1,564,843	87
Comoros (the)	0.0	159,777	143,653	16,124	90
Congo (the)	3.6	313,626	267,030	46,596	85
Cook Islands (the)	0.0	264,050	83,561	180,489	32
Costa Rica	19.6	1,341,299	1,192,592	148,707	89
Cote d'Ivoire	22.3	1,638,362	974,930	663,432	60
Croatia	8.1	804,104	804,104	0	100
Cuba	19.3	2,007,527	1,745,655	261,872	87
Democratic People's Republic of Korea (the)	19.4	804,255	271,048	533,208	34
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	3,831,820	3,001,180	830,640	78
Ecuador	28.0	2,631,410	2,239,542	391,868	85
Egypt	332.2	25,712,270	13,210,377	12,501,893	51
El Salvador	12.9	1,260,018	897,386	362,632	71
Equatorial Guinea	0.9	249,962	248,267	1,695	99
Eritrea	0.4	209,559	209,559	0	100
Eswatini (the Kingdom of)	8.3	971,931	851,931	120,000	88

Country	Approved phase-out (ODP tonnes)	Funds approved (US\$)	Funds disbursed (US\$)	Balance (US\$)	Funds disbursed (%)
Ethiopia	1.9	511,771	275,153	236,618	54
Fiji	2.0	607,700	264,258	343,442	43
Gabon	10.6	534,841	421,351	113,491	79
Gambia (the)	0.6	399,497	184,086	215,411	46
Georgia	3.5	691,739	456,956	234,783	66
Ghana	48.5	1,928,700	1,313,702	614,998	68
Grenada	0.3	189,000	188,354	646	100
Guatemala	5.1	597,494	420,887	176,607	70
Guinea	2.6	523,053	481,987	41,066	92
Guinea-Bissau	1.0	255,849	255,849	0	100
Guyana	0.7	412,995	255,090	157,905	62
Haiti	0.4	147,010	121,027	25,983	82
Honduras	8.8	841,455	617,659	223,797	73
India	1,067.4	57,713,539	46,288,349	11,425,190	80
Indonesia	194.1	16,374,860	12,256,661	4,118,199	75
Iran (Islamic Republic of)	297.6	18,969,071	13,902,962	5,066,109	73
Iraq	15.0	1,535,266	824,999	710,267	54
Jamaica	8.9	763,899	563,020	200,879	74
Jordan	59.3	5,836,874	4,338,055	1,498,819	74
Kenya	14.1	1,973,000	1,145,989	827,011	58
Kiribati	0.0	310,600	85,510	225,090	28
Kuwait	273.8	10,824,663	6,449,599	4,375,064	60
Kyrgyzstan	3.3	799,922	799,488	434	100
Lao People's Democratic Republic (the)	0.8	493,400	207,591	285,809	42
Lebanon	68.6	6,439,571	6,095,155	344,416	95
Lesotho	0.0	448,900	274,538	174,362	61
Liberia	2.0	315,000	299,150	15,850	95
Libya	26.4	1,161,310	780,138	381,172	67
Madagascar	6.0	558,434	553,472	4,962	99
Malawi	3.8	628,745	472,234	156,512	75
Malaysia	249.2	15,725,205	13,108,693	2,616,512	83
Maldives	0.6	1,081,613	1,081,613	0	100
Mali	5.2	500,830	459,723	41,107	92
Marshall Islands (the)	0.2	187,200	89,575	97,625	48
Mauritania	0.0	255,000	115,000	140,000	45
Mauritius	3.1	782,500	417,577	364,923	53
Mexico	555.7	27,028,785	22,128,451	4,900,334	82
Micronesia (Federated States of)	0.2	314,100	89,519	224,581	29
Mongolia	1.0	583,769	340,836	242,933	58
Montenegro	0.6	697,660	447,211	250,448	64
Morocco	19.1	1,654,159	1,266,159	388,000	77
Mozambique	3.1	302,361	187,990	114,371	62
Myanmar	0.4	280,000	164,835	115,165	59
Namibia	8.2	810,000	619,229	190,771	76
Nauru	0.0	139,450	52,945	86,505	38
Nepal	0.7	428,000	171,641	256,359	40
Nicaragua	3.3	471,426	304,426	166,999	65
Niger (the)	5.6	558,840	410,203	148,638	73
Nigeria	165.7	9,603,143	5,943,768	3,659,375	62
Niue	0.0	114,200	60,255	53,945	53
North Macedonia	2.6	1,242,060	1,048,424	193,636	84

Country	Approved phase-out (ODP tonnes)	Funds approved (US\$)	Funds disbursed (US\$)	Balance (US\$)	Funds disbursed (%)
Oman	18.2	1,429,039	842,496	586,542	59
Pakistan	153.3	10,895,366	7,631,639	3,263,727	70
Palau	0.2	303,000	108,000	195,000	36
Panama	11.6	1,260,815	865,737	395,078	69
Papua New Guinea	3.4	1,125,000	905,335	219,665	80
Paraguay	7.7	840,600	550,621	289,979	66
Peru	9.5	960,406	713,671	246,735	74
Philippines (the)	40.0	3,628,365	2,814,110	814,254	78
Qatar	14.7	1,396,986	1,046,441	350,545	75
Republic of Moldova (the)	0.4	386,759	239,606	147,153	62
Rwanda	1.9	437,399	282,196	155,203	65
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	252,365	169,586	60
Samoa	0.2	344,450	150,650	193,800	44
Sao Tome and Principe	0.1	155,012	138,888	16,124	90
Saudi Arabia	353.5	9,370,251	7,236,004	2,134,247	77
Senegal	3.6	873,514	541,514	332,000	62
Serbia	5.2	1,110,641	976,790	133,851	88
Seychelles	1.4	540,000	352,445	187,555	65
Sierra Leone	1.0	459,620	199,286	260,334	43
Solomon Islands	1.8	466,250	170,975	295,275	37
Somalia	1.8	385,574	325,207	60,367	84
South Africa	100.3	6,354,796	5,221,291	1,133,505	82
South Sudan	0.0	20,000	0	20,000	0
Sri Lanka	12.0	1,054,416	632,795	421,621	60
Sudan (the)	49.0	4,333,164	2,341,875	1,991,289	54
Suriname	0.6	186,742	142,109	44,633	76
Syrian Arab Republic	10.1	590,036	3,778	586,258	1
Thailand	255.0	18,424,008	16,943,950	1,480,058	92
Timor-Leste	0.1	504,170	313,729	190,441	62
Togo	7.0	629,894	554,369	75,525	88
Tonga	0.1	324,050	103,605	220,445	32
Trinidad and Tobago	17.9	1,931,436	1,432,680	498,756	74
Tunisia	16.8	1,821,443	1,382,597	438,847	76
Türkiye	410.7	12,405,390	9,881,375	2,524,015	80
Turkmenistan	2.4	812,706	663,688	149,018	82
Tuvalu	0.1	168,450	78,645	89,805	47
Uganda	0.0	283,875	167,708	116,167	59
United Republic of Tanzania (the)	1.1	482,375	171,527	310,848	36
Uruguay	15.2	1,835,762	1,089,510	746,252	59
Vanuatu	0.3	360,600	141,317	219,283	39
Venezuela (Bolivarian Republic of)	28.9	2,488,281	2,327,661	160,619	94
Viet Nam	183.6	14,088,851	9,673,143	4,415,708	69
Yemen	11.6	159,529	159,529	0	100
Zambia	2.5	462,956	242,956	220,000	52
Zimbabwe	12.3	1,288,818	941,761	347,057	73
Region: ASP	0.0	940,000	293,000	647,000	31
Total	14,637.4	868,841,119	691,960,722	176,880,397	80

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 2021 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	Mt 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	1,072,038
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	1,270,980
Lebanon	UNIDO	Domestic and commercial refrigerators	HFC-134a/R-404A (112.58 mt)	R-600a/R-290	245,860	1,053,858	1,039,856
Mexico	UNIDO	Commercial refrigerators	HFC-134a/R-404A (56.04 mt)	R-600a/R-290	124,657	1,018,123	24,383

¹ UNEP/OzL.Pro/ExCom/85/9

Country	Agency	Products	HFC used (mt)	Alternative used	Mt CO ₂ -eq	Funds approved (US \$)	Funds disbursed (US \$)
Thailand ²	World Bank	Commercial refrigerators	HFC-134a (8.78 mt)	R-600a	12,555	183,514	146,811
Total			754.64		1,108,442	8,502,860	6,685,678

5. Five projects (Bangladesh, China, Lebanon, Mexico and Thailand) have been completed; a detailed project report for Bangladesh and China have been provided by UNDP and the reports for the remaining projects are expected to be submitted by the agencies by the end of 2022. One project was delayed due to delays relating to final installation, commissioning and training activities for factory personnel due to COVID-19 restrictions and supply chain challenges; implementing agencies are taking steps to complete these projects before 31 December 2022.

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 Germany³ and Italy,⁴ IBRD,⁵ UNDP,⁶ UNEP,⁷ and UNIDO,⁸ have completed 82 projects relating to enabling activities by 2021; despite the challenges imposed by COVID-19, the agencies are working with the countries to ensure expeditious completion of enabling activities.

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;

² The equipment based on the alternative technology is under production; funds would be disbursed by the end of 2020 to the beneficiary enterprise retroactively, after signing of the agreement between the financial intermediary and the beneficiary.

³ Papua New Guinea and Seychelles

⁴ Lesotho, Rwanda and Tunisia

⁵ Indonesia, Malaysia and Thailand

⁶ China, Colombia, Costa Rica, Fiji, Jamaica, Lebanon, Paraguay, Peru, Trinidad and Tobago, and Uruguay

⁷ Angola, the Bahamas, Bhutan, Cambodia, Chile, China, the Dominican Republic, Ecuador, Egypt, Eritrea, Eswatini, Ethiopia, Ghana, Guatemala, Honduras, Kyrgyzstan, Lesotho, Malawi, Mexico, Micronesia (Federated States of), Mongolia, Mozambique, Namibia, Nauru, Nigeria, Niue, Palau, Rwanda, Samoa, Senegal, Sierra Leone, South Sudan, the Sudan, Syrian Arab Republic, Togo, Tonga, Turkmenistan, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Zambia, and Zimbabwe

⁸ Albania, Armenia, Bosnia and Herzegovina, Burkina Faso, Cameroon, the Congo, the Gambia, Grenada, Mexico, Montenegro, Nicaragua, the Niger, North Macedonia, the Philippines, Serbia, Somalia, South Africa, the Sudan, Tunisia, Turkey, Uruguay, and Viet Nam

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 licensing⁹ and quota system; and consultations on mechanisms for monitoring HFC supply and use in cooperation with customs and other stakeholders;
- (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);¹⁰ 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.

⁹ 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.

¹⁰ 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.

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 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; and customs and enforcement training and strengthening border control points with identification equipment is essential for preventing illegal trade of HFCs;
- (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, 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.
- (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 continues to pose 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;
- (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; and
- (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.

- (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 2021, 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 \$23,827,225, with a total disbursement of US \$18,914,156.
