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执行蒙特利尔议定书
多边基金执行委员会
第八十八次会议
2021 年 11 月 15 至 19 日，蒙特利尔[1]

开发计划署截至 2020 年 12 月 31 日的进度报告

1. 本文件介绍开发计划署截至 2020 年 12 月 31 日的进度报告。[2]

导言

2. 开发计划署的进度报告中纳入了项目执行情况，包括 18 个氢氟碳化物相关项目，这些项目由 17 个非第 5 条缔约方的额外自愿捐款供资，为执行《基加利修正案》提供快速启动支助。

3. 秘书处逐国审查了每个进行中项目的执行情况，同时考虑到针对 2020 年报告的计划完成日期在执行中出现的延误、这些延误对淘汰受控物质以及计划的资金发放率可能产生的影响。本文件所载分析以所有受控物质的 ODP 吨数为依据，但以二氧化碳当量吨计算的氢氟碳化物除外。[3]

文件范围

4. 本文件由以下部分组成:

第一部分: 在多边基金经常捐款项下核准的项目。该部分概述了 2020 年项目执行进展，以及 1991 年以来涉及《蒙特利尔议定书》下所有受控物质，包括附件 F 物质(氢氟碳化物)的累计项目执行进展；它载有对国

[1] 由于 2019 冠状病毒病（Covid-19），将于 2021 年 11 月和 12 月举行在线会议和闭会期间批准程序。

[2] 进度报告附于本文件之后。数据已列入综合进度报告的数据库，可应要求提供。

[3] 根据第 84/12(a)(四)号决定，以二氧化碳当量吨计算的氢氟碳化物数值已纳入提交第八十八次会议的进度报告。

家一级每个进行中项目[4]的执行情况的审查；它还查明了存在实施延误的项目和对淘汰受控物质可能产生的影响，以及存在未决问题供执行委员会审议的项目。

第二部分: 在额外自愿捐款下核准的为逐步减少氢氟碳化物提供快速启动支助的项目。该部分概述了由自愿捐款资助的氢氟碳化物逐步减少项目的实施情况。[5]

建议。

5. 本文件还包含以下附件:

附件一: 每一个存在未决问题供执行委员会审议的进行中项目的概况和建议。

附件二: 进度报告分析

第一部分: 在多边基金经常捐款项下核准的项目

2020 年和累计的项目执行进展情况摘要

6. 开发计划署 2020 年项目和活动以及 1991 年至 2020 年 12 月 31 日累计项目和活动执行情况摘要如下：

(a) **淘汰:** 2020 年，淘汰了 418.1[6] ODP 吨受控物质消费量，又核准淘汰 620.2 ODP 吨受控物质消费量。自 1991 年以来，已淘汰了 67,872 ODP 吨和 224,221 公吨二氧化碳当量的受控物质消费量，而核准的项目(不包括撤销的项目和改变执行机构的项目)预期总量为 69,033 ODP 吨和 240,094 公吨二氧化碳当量；

(b) **发放/核准:** 2020 年共发放 2,770 万美元，根据 2019 年进度报告，计划发放 2,190 万美元，发放率为计划发放率的 126%。在核准发放的共计 8.6136 亿美元(不包括机构支助费用)中，已累计发放 7.9636 亿美元，发放率为 92%。2020 年核准了 3,021 万美元用于执行工作；

(c) **成本效益(按 ODP 计):**[7] 自 1991 年以来，导致消费量永久减少的已核准投资项目的平均成本效益为 10.97 美元/公斤。投资项目中已完成项目的每 ODP 吨平均成本效益为 9.69 美元/公斤，进行中项目为 68.60 美元/公斤;[8]

[4] 进行中的项目是指截至 2020 年 12 月 31 日正在实施的所有项目。关键进度指标包括: 已发放资金的百分比和已开始发放资金的项目的百分比；年底前预订发放的供资占核准供资的百分比；项目执行中平均预计延误时间；进度报告数据库的备注一栏提供的信息。

[5] 根据第 84/12(b)号决定，综合进度报告(UNEP/OzL.Pro/ExCom/88/12)载有一份详细的进度报告，概述各项目标、执行情况、主要结论和经验教训、酌情淘汰的氢氟碳化物的数量、核准和发放的资金数额以及完成这些项目和活动可能面临的挑战。

[6] 包括 2020 年氢氟碳化物相关项目淘汰的 70.1 公吨(100,243 公吨二氧化碳当量)。

[7] 包括 167.8 吨氢氟碳化物投资项目。由于核准的项目数量有限，未将二氧化碳当量的成本效益包括在内。

[8] 进行中项目的成本效益值较高主要是由于氟氯烃的 ODP 值较低，但也是各机构用于归属淘汰量的手段。

(d) **已完成项目的数目:** 2020 年完成了 34 个项目。1991 以来在核准的 2,526 个项目中已完成 2,379 个项目 (不包括已关闭或改变执行机构的项目)，完成率达 94%；

(e) **交付速度– 投资项目:** 2020 年完成的项目平均在获准后的 37 个月内完成。自 1991 年以来，投资项目的平均完成时间为批准后 34 个月。这些项目下的首次付款平均发生在项目获准的 13 个月之后；

(f) **交付速度 – 非投资项目:** 2020 年完成的项目平均在获准后的 27 个月内完成。自 1991 年以来，非投资项目的平均完成时间为批准后 39 个月。这些项目下的首次付款平均发生在项目获准的 13 个月之后；

(g) **项目编制:** 在 2020 年底之前获核准的 540 个项目编制活动中，已完成 522 个，有 18 项活动仍在进行。2020 年完成了 4 个项目编制活动；

(h) **执行拖延:** 截至 2020 年底，共有 147 个项目正在执行之中，平均拖延 7 个月。这些项目中有 13 个被列为“执行拖延项目”[9]，必须按项目撤销程序处理（而示范项目、项目编制和体制强化则不受这些程序的约束）；

(i) **多年期协定：** 2020 年，有 51 项氟氯烃淘汰管理计划的多年期协定正在执行中。自 1991 年以来，已核准 148 项多年期协定，完成了 97 项，完成率为 66%。

2020 年项目执行进度

7. 在审查进程之后对一些问题进行了讨论并令人满意地得到了解决，但下列项目除外：13 个被列为执行拖延项目(包括 10 个与根据第 84/45(c)号决定须按项目撤销程序处理的多年期协定组成部分有关的项目)；一个技术援助项目、一个氢氟碳化物投资项目和一个第 5 条国家逐步减少氢氟碳化物扶持活动(“扶持活动”)。本文件附件一介绍了被列为执行拖延的项目，以及秘书处要求向第九十次会议提交报告的建议。

8. 还发现了一个与氟氯烃淘汰管理计划项目编制有关的问题。本文件附件一也介绍了这一问题。简要说明了该项目的执行情况和未决问题，并提出了一项建议供执行委员会审议。

[9] 获核准超过 18 个月但付款不足 1%的项目，或在进度报告(第 22/61 号决定)提议的完成日期 12 个月后仍未完成的项目(示范项目，项目编制和体制强化则不受这些程序的约束)。

9. 向第八十八次会议提交了安哥拉、[10]巴西、[11]智利、[12]中国、[13]哥伦比亚、[14]刚果民主共和国、[15]埃及、[16]斐济、[17]格鲁吉亚、[18]印度尼西亚、[19]马来西亚、[20]尼日利亚、[21]摩尔多瓦共和国[22]和东帝汶[23]氟氯烃淘汰管理计划相关项目的实施进展详情，以及与巴西(消耗臭氧层物质处置)和加纳(氟氯烃淘汰管理计划)相关的有具体报告要求的项目报告。[24] 关于这些项目的未决问题，包括核准项目延长申请(如果有的话)的建议，见这些文件的相关章节。与孟加拉国、哥斯达黎加、圭亚那、伊朗伊斯兰共和国、马里、毛里塔尼亚和南苏丹氟氯烃淘汰管理计划相关的问题，见关于延误提交付款申请的文件。[25]

10. 自 2019 年进度报告以来，在 102 个正在进行的项目中（不包括体制强化和项目编制），有 30 个项目修订了计划完成日期。

11. 根据第 82/11(b)[26]号决定，开发计划署已请求将若干氟氯烃淘汰管理计划的期限延长至 2022 年 12 月 31 日之后；附有具体报告要求的项目报告[27]中讨论了那些没有作为付款申请的一部分提交的项目。

12. 根据第 82/11(c)(二)号决定，秘书处注意到，过去两年没有为阿根廷、中国和委内瑞拉玻利瓦尔共和国提交延长体制强化项目申请；主要原因是，受 COVID 19 大流行的限制，研讨会和会议等活动数量有限、某些国家货币贬值以及与延长体制强化申请相关的其他行政事项，导致了付款减少。开发计划署告知，它计划在 2022 年提交延长申请。

第二部分: 在额外自愿捐款下核准的为逐步减少提供快速启动支助的项目

13. 截至 2020 年 12 月 31 日，执行委员会在额外自愿捐款下核准了 18 个氢氟碳化物相关项目，共计 6,051,258 美元(不包括机构支助费用)。表 1 概述了这些项目的状况。

表 1. 截至 2020 年底已核准的氢氟碳化物相关项目的状况

类别	项目数目			供资 (美元)*			
	核准	完成	完成率%	核准	发放	余额	发放率%
投资**	2	1	50	4,406,610	4,150,023	256,587	94

[10] UNEP/OzL.Pro/ExCom/88/36
[11] UNEP/OzL.Pro/ExCom/88/39
[12] UNEP/OzL.Pro/ExCom/88/42
[13] UNEP/OzL.Pro/ExCom/88/43
[14] UNEP/OzL.Pro/ExCom/88/44
[15] UNEP/OzL.Pro/ExCom/88/45
[16] UNEP/OzL.Pro/ExCom/88/47
[17] UNEP/OzL.Pro/ExCom/88/49
[18] UNEP/OzL.Pro/ExCom/88/50
[19] UNEP/OzL.Pro/ExCom/88/51
[20] UNEP/OzL.Pro/ExCom/88/53
[21] UNEP/OzL.Pro/ExCom/88/56
[22] UNEP/OzL.Pro/ExCom/88/61
[23] UNEP/OzL.Pro/ExCom/88/65
[24] UNEP/OzL.Pro/ExCom/88/18
[25] UNEP/OzL.Pro/ExCom/88/21
[26] 任何延长申请必须在项目完成日期之前提交执行委员会核准，同时指出，延长申请获准之前不得预先承诺任何新的付款。
[27] UNEP/OzL.Pro/ExCom/88/18

类别	项目数目			供资 (美元)*			
	核准	完成	完成率%	核准	发放	余额	发放率%
项目编制	5	5	100	124,066	83,511	40,555	67
技术援助- 扶持活动	11	4	36	1,520,582	1,309,290	211,292	86
共计	**18**	**10**	**56**	**6,051,258**	**5,542,824**	**508,434**	**92**

* 不包括项目支助费用。
** 在 480.6 公吨(587,301 公吨二氧化碳当量) 的氢氟碳化物中已淘汰 330.6 公吨(432,801 公吨二氧化碳当量)。

14. 截至 2020 年底，在核准的 18 个项目中，有 10 个项目已经完成，包括 1 个投资项目、4 个扶持活动和 5 个编制活动，还有 8 个正在进行。已核准延长 7 项正在进行的扶持活动的完成日期；这些活动正处于不同的实施阶段。审查进程之后，有 3 个扶持活动项目被列为执行拖延项目，并被列入本文件附件一，其中载有秘书处要求向第九十次会议提交报告的建议。

15. 根据第 82/11(b)[28]号决定，开发计划署申请进一步延长表 2 所示的一个扶持活动项目的期限。

表 2. 申请延长完成日期的项目

国家/项目编号	项目名称	发放率(%)	状况 / 问题	订正完成日期	申请完成日期
乌拉圭 URU/SEV/80/TAS/02+	逐步减少氢氟碳化物的扶持活动	74	受 COVID-19 限制，海关氢氟碳化物管制能力建设需求评估和实施氢氟碳化物修正案法律框架特征简介均延迟完成	21 年 12 月	22 年 6 月

16. 获第八十二次会议核准正在进行的剩余投资项目-核定资金已发放 80%-预计将于 2021 年完成。

17. 在核定累计供资总额 6,051,258 美元中，已发放 5,542,824 美元，发放率为 92% 。

建议

18. 谨提议执行委员会：

(a) 注意到 UNEP/OzL.Pro/ExCom/88/14 号文件所载开发计划署截至 2020 年 12 月 31 日的进度报告；

(b) 核准将乌拉圭逐步减少氢氟碳化物扶持活动(URU/SEV/80/TAS/02+)延长至 2022 年 6 月 30 日，以便开发计划署能够完成氢氟碳化物监测的能力建设和法律框架相关活动，受 COVID 19 限制，这些活动无法在 2021 年 12 月 31 日之前完成；

(c) 核准与本文件附件一所载存在具体问题的进行中项目有关的建议。

[28] 任何延长申请必须在项目完成日期之前提交执行委员会核准，同时指出，延长申请获准之前不得预先承诺任何新的付款。

附件一

开发计划署进度报告中存在未决问题的进行中项目

国家/项目编号*	项目名称	发放率 (%)	现况/问题	建议
孟加拉国 BGD/PHA/81/INV/51	氟氯烃淘汰管理计划(第二阶段，第一次付款) (空调行业)	0	拖延 18 个月	请开发计划署向第九十次会议报告执行拖延项目
孟加拉国 BGD/PHA/81/TAS/49	氟氯烃淘汰管理计划(第二阶段，第一次付款) (项目管理机构)	0	拖延 18 个月	请开发计划署向第九十次会议报告执行拖延项目
哥伦比亚 COL/SEV/80/TAS/01+	逐步减少氢氟碳化物的扶持活动	97	拖延 12 个月	请开发计划署向第九十次会议报告执行拖延项目
中国 CPR/SEV/80/TAS/04+	逐步减少氢氟碳化物的扶持活动	100	拖延 12 个月	请开发计划署向第九十次会议报告执行拖延项目
萨尔瓦多 ELS/PHA/79/TAS/36	氟氯烃淘汰管理计划第一阶段核查报告	0	拖延 12 个和 18 个月	请开发计划署向第九十次会议报告执行拖延项目
圭亚那 GUY/PHA/83/INV/32	氟氯烃淘汰管理计划(第二阶段，第二次付款)	0	拖延 18 个月	请开发计划署向第九十次会议报告执行拖延项目
印度 IND/PHA/77/TAS/472	氟氯烃淘汰管理计划(第二阶段，第一次付款) (项目管理和监测)	0	拖延 12 个和 18 个月	请开发计划署向第九十次会议报告执行拖延项目
印度 IND/PHA/82/INV/475	氟氯烃淘汰管理计划(第二阶段，第二次付款) (聚氨酯泡沫塑料行业计划)	0	拖延 18 个月	请开发计划署向第九十次会议报告执行拖延项目
印度 IND/PHA/82/TAS/477	氟氯烃淘汰管理计划(第二阶段，第二次付款) (项目管理和监测)	0	拖延 18 个月	请开发计划署向第九十次会议报告执行拖延项目
牙买加 JAM/PHA/76/INV/36	氟氯烃淘汰管理计划(第一阶段，第三次付款)	64	拖延 12 个月	请开发计划署向第九十次会议报告执行拖延项目
黎巴嫩 LEB/PHA/81/TAS/92	氟氯烃淘汰管理计划(第二阶段，第二次付款) (制冷维修及项目管理和协调)	0	拖延 18 个月	请开发计划署向第九十次会议报告执行拖延项目
黎巴嫩 LEB/SEV/80/TAS/02+	逐步减少氢氟碳化物的扶持活动	39	拖延 12 个月	请开发计划署向第九十次会议报告执行拖延项目
毛里塔尼亚 MAU/PHA/80/INV/25	氟氯烃淘汰管理计划(第一阶段，第一次付款)	0	拖延 18 个月	请开发计划署向第九十次会议报告执行拖延项目
马里 MLI/PHA/84/PRP/41	编制氟氯烃淘汰管理计划(第二阶段)	0	政治局势导致编制活动难以完成	请开发计划署就提交进度和财务报告以及资金额的发放向第九十次会议提交一份情况报告
巴拿马 PAN/PHA/76/INV/44	氟氯烃淘汰管理计划(第二阶段，第一次付款) (泡沫塑料行业)	11	拖延 12 个月	请开发计划署向第九十次会议报告执行拖延项目
巴拿马 PAN/SEV/81/TAS/46	逐步减少氢氟碳化物的扶持活动	40	拖延 12 个月	请开发计划署向第九十次会议报告执行拖延项目

国家/项目编号*	项目名称	发放率 (%)	现况/问题	建议
津巴布韦 ZIM/REF/82/INV/55	将卡普里（哈拉雷中小企业）家用冰箱制造过程中使用的 HFC-134a 转为异丁烷)	0	拖延 12 个和 18 个月	请开发计划署向第九十次会议报告执行拖延项目

* 编号以“+” 结尾的项目资金来自额外捐款。

附件二

开发计划署截至 2020 年 12 月 31 日的进展报告分析

1. 本附件由下列两部分组成：

第一部分: 在多边基金经常捐款项下核准的项目。

第二部分: 在额外自愿捐款下核准的为逐步减少氢氟碳化物提供快速启动支助的项目

第一部分: 在多边基金经常捐款项下核准的项目

2. 截至 2020 年 12 月 31 日，执行委员会已核准 9.7898 亿美元，其中 8.6136 亿美元用于执行投资和非投资项目，1.1763 亿美元用于机构支助费用，如表 1 所示。2020 年核准了 51 个新项目和活动。这一供资水平预计可以淘汰 69,033 ODP 吨受控物质消费量和 240,094 公吨二氧化碳当量的氢氟碳化物相关项目的消费量。

表 1. 截至 2020 年 12 月 31 日开发计划署按行业分列的核定供资

行业	供资 (美元)
气雾剂	26,054,837
销毁	3,606,279
泡沫塑料	173,331,512
哈龙	4,996,973
熏蒸剂	20,081,241
淘汰计划	361,740,925
加工剂	1,286,923
生产	1,056,000
制冷	139,603,919
多重影响	65,479,103
溶剂	63,699,997
消毒剂	417,628
小计	**861,355,337**
机构支助费用	117,625,135
共计	**978,980,472**

3. 表 2 汇总了各类项目执行情况。

表 2. 各类项目执行情况

类别	项目数量*			供资 (美元)**			
	核准	完成	完成率%	核准	发放	余额	发放率%
国家方案	22	22	100	1,628,797	1,628,797	0	100
示范	42	41	98	21,910,507	21,550,701	359,806	98
体制强化	256	229	89	55,111,246	50,254,147	4,857,099	91
投资	1,311	1,243	95	709,402,352	659,814,365	49,587,987	93
项目编制	540	522	97	22,409,988	21,887,077	522,911	98
技术援助	327	294	90	49,301,958	39,633,179	9,668,779	80
培训	28	28	100	1,590,489	1,590,489	0	100

类别	项目数量*			供资 (美元)**			
	核准	完成	完成率%	核准	发放	余额	发放率%
共计	**2,526**	**2,379**	**94**	**861,355,337**	**796,358,755**	**64,996,582**	**92**

* 不包括已关闭或改变执行机构的项目。
**不包括机构支助费用。

4. 表 3 列出了各年份项目执行情况概览。[29] 1991 至 2013 年期间核准的所有项目均已完成。

表 3. 各年份项目执行情况

年份	项目数量*			供资 (美元)**			
	核准	完成	完成率%	核准	发放	余额	发放率%
1991 年	15	15	100	1,149,032	1,149,032	0	100
1992 年	67	67	100	8,619,002	8,619,002	0	100
1993 年	57	57	100	13,204,712	13,204,712	0	100
1994 年	148	148	100	49,481,581	49,481,581	0	100
1995 年	117	117	100	29,599,446	29,599,446	0	100
1996 年	83	83	100	27,838,805	27,838,805	0	100
1997 年	188	188	100	44,056,257	44,056,257	0	100
1998 年	172	172	100	31,305,010	31,305,010	0	100
1999 年	204	204	100	35,896,884	35,896,884	0	100
2000 年	149	149	100	31,268,361	31,268,361	0	100
2001 年	179	179	100	35,292,271	35,292,271	0	100
2002 年	117	117	100	44,316,422	44,316,422	0	100
2003 年	64	64	100	36,336,530	36,336,530	0	100
2004 年	69	69	100	24,802,714	24,802,714	0	100
2005 年	53	53	100	29,124,833	29,124,833	0	100
2006 年	62	62	100	15,753,459	15,753,461	-2	100
2007 年	54	54	100	12,142,486	12,142,486	0	100
2008 年	84	84	100	22,873,866	22,873,866	0	100
2009 年	92	92	100	13,222,786	13,217,903	4,883	100
2010 年	43	43	100	19,567,970	19,567,970	0	100
2011 年	63	63	100	57,415,442	57,415,931	-489	100
2012 年	29	29	100	33,889,850	33,711,420	178,430	99
2013 年	43	43	100	34,433,292	33,845,180	588,112	98
2014 年	67	65	97	22,566,390	22,339,555	226,835	99
2015 年	75	74	99	33,477,064	29,609,306	3,867,758	88
2016 年	52	43	83	42,115,232	38,481,186	3,634,046	91
2017 年	28	18	64	30,726,524	29,868,519	858,005	97
2018 年	60	21	35	40,274,486	12,139,791	28,134,695	30
2019 年	41	6	15	10,391,727	1,717,154	8,674,573	17
2020 年	51	0	0	30,212,903	11,383,167	18,829,736	38

[29] 数据按执行委员会核准项目的年份列报。它对所有核准项目(投资和非投资项目)一视同仁(即一个投资项目或 100 万美元的多年期协定供资付款被视为一个项目，与 30,000 美元的国家方案编制相同)。年度总结中的关键指标是:已完成项目的百分比、淘汰的 ODP 吨和发放资金的百分比。付款分三种类型：执行中、执行后和追溯融资的项目付款。

年份	项目数量*			供资 (美元)**			
	核准	完成	完成率%	核准	发放	余额	发放率%
共计	**2,526**	**2,379**	**94**	**861,355,337**	**796,358,755**	**64,996,582**	**92**

* 不包括已关闭或改变执行机构的项目。
** 不包括机构支助费用。

5. 表 4 列出了 2020 年各国项目执行情况。

表 4. 开发计划署 2020 年项目执行情况摘要

国家	2020 年淘汰 (ODP 吨)*	2020 年实现的计划淘汰的百分比	2020 年发放的资金估计数(美元)	2020 年发放的资金(美元)	020 年发放资金超过估计数的百分比	2020 年完成的计划项目百分比
安哥拉	0.0		80,629	119,673	148	
阿根廷	0.0		160,688	107,141	67	
亚美尼亚	0.0		10,405	34,053	327	100
孟加拉国	0.0		698,777	922	0	
巴巴多斯	0.0		1,276	0	0	
伯利兹	0.0		10,000	0	0	
不丹	0.0		449	0	0	
巴西	20.0		3,663,123	1,900,772	52	
文莱达鲁萨兰国	0.2	100	6,900	14,937	216	100
柬埔寨	0.0		45,000	74,216	165	
智利	4.0		290,692	391,151	135	
中国	130.3	55	76,437	11,609,384	15188	40
哥伦比亚	26.0	14	897,760	380,370	42	50
哥斯达黎加	3.5		222,542	164,696	74	100
古巴	3.2		223,459	289,759	130	50
刚果民主共和国	0.0		17,476	0	0	0
多米尼加共和国	0.0		140,195	109,120	78	
埃及	2.0	29	1,915,623	1,211,224	63	0
萨尔瓦多	0.0		78,643	43,427	55	0
斯威士兰	0.0		10,000	0	0	
斐济	0.0		38,391	8,565	22	50
格鲁吉亚	0.7		72,547	30,189	42	0
加纳	5.5		143,692	170,247	118	100
圭亚那	0.0		53,979	0	0	
海地	0.2		57,261	92,174	161	
印度	103.8	100	5,964,270	5,834,391	98	67
印度尼西亚	0.0		1,284,496	515,582	40	50
伊朗伊斯兰共和国	17.2		1,101,245	684,040	62	
牙买加	0.0		45,407	18,211	40	0
吉尔吉斯斯坦	0.5	100	31,371	11,576	37	100
黎巴嫩	6.3		249,550	420,074	168	
马来西亚	10.0		634,368	834,646	132	
马尔代夫	0.0		9,887	12,593	127	
马里	0.0		19,875	0	0	
毛里塔尼亚	0.0		31,500	0	0	
墨西哥	70.1		1,352,236	631,763	47	
莫桑比克	0.0		10,000	0	0	
尼泊尔	0.0		8,179	9,000	110	
尼日利亚	5.0	11	952,954	660,512	69	25
巴基斯坦	0.0		84,324	166,380	197	

国家	2020 年淘汰 (ODP 吨)*	2020 年实现的计划淘汰的百分比	2020 年发放的资金估计数(美元)	2020 年发放的资金(美元)	020 年发放资金超过估计数的百分比	2020 年完成的计划项目百分比
巴拿马	1.4	16	302,710	248,251	82	0
巴拉圭	0.0		22,321	3,280	15	
秘鲁	0.0		73,975	231,576	313	
摩尔多瓦共和国	0.0		46,359	50,072	108	
圣基茨和尼维斯	0.0		40	0	0	
斯里兰卡	0.0		63,050	94,493	150	100
东帝汶	0.0		18,321	0	0	
特立尼达和多巴哥	7.2		135,972	141,914	104	
乌拉圭	1.0	100	308,885	319,339	103	100
委内瑞拉玻利瓦尔共和国	0.0		123,480	50,404	41	
津巴布韦	0.0		118,086	8,003	7	
总计	**418.1**	**58**	**21,908,805**	**27,698,120**	**126**	**51**

* 2020 年氢氟碳化物相关项目淘汰 70.1 公吨(100,243 公吨二氧化碳当量)。

6. 表 5 汇总了在经常捐款下核准的氢氟碳化物相关项目。

表 5. 在经常捐款下核准的氢氟碳化物相关项目

类别	项目数目			供资 (美元)*			
	核准	完成	完成率%	核准	发放	余额	发放率%
投资**	3	2	67	2,491,791	2,073,141	418,650	83
技术援助-扶持活动	8	0	0	644,000	171,405	472,595	27
共计	**11**	**2**	**18**	**3,135,791**	**2,244,546**	**891,245**	**72**

* 不包括机构支助费用。

** 142.8 公吨(240,094 公吨二氧化碳当量)被批准用于投资项目。

7. 目前共有 11 个氢氟碳化物相关项目(包括 3 个投资项目和 8 个扶持活动)。在这 11 个项目中，两个投资项目已经完成，剩余 9 个正在进行。已核准延长 8 项扶持活动的完成日期；这些正在进行的活动处于不同的实施阶段。

8. 第八十七次会议核准延长正在进行的剩余投资项目的完成日期。该项目预计于 2022 年完成。

9. 在核准的累计供资总额 3,135,791 美元(不包括机构支助费用)中，已发放 2,244,546 美元，发放率为 72%。

第二部分: 在额外自愿捐款下核准的为逐步减少氢氟碳化物提供快速启动支助的项目

10. 截至 2020 年 12 月 31 日，执行委员会在额外自愿捐款下核准了 18 个氢氟碳化物相关项目，共计 6,051,258 美元(不包括机构支助费用)。表 6 汇总了这些项目的状况。

表 6. 截至 2020 年底已核准的氢氟碳化物相关项目的状况

类别	项目数目			供资(美元)*			
	核准	完成	完成率%	核准	发放	余额	发放率%
投资**	2	1	50	4,406,610	4,150,023	256,587	94
项目编制	5	5	100	124,066	83,511	40,555	67
技术援助扶持活动	11	4	36	1,520,582	1,309,290	211,292	86

类别	项目数目			供资(美元)*			
	核准	完成	完成率%	核准	发放	余额	发放率%
共计	**18**	**10**	**56**	**6,051,258**	**5,542,824**	**508,434**	**92**

* 不包括机构支助费用。

** 在 480.6 公吨(587,301 公吨二氧化碳当量)的氢氟碳化物中，已淘汰 330.6 公吨(432,801 公吨二氧化碳当量)。

11. 截至 2020 年底，在核准的 18 个项目中，10 个已经完成，包括 1 个投资项目、4 个扶持活动和 5 个编制活动，剩余 8 个正在进行。已核准延长 7 项正在进行的扶持活动的完成日期；这些活动正处于不同的实施阶段。

12. 获第八十二次会议核准的正在进行的剩余投资项目-核定资金发放率为 80%-预计于 2021 年完成。

13. 在核准的累计供资总额 6,051,258 美元中，已发放 5,542,824 美元，发放率为 92% 。

Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol

UNDP Annual Progress and Financial Report Narrative: 1991-2020

88th Meeting, 15–19 November 2021, Montreal, Canada

I. INTRODUCTION

The following narrative is based on a database of 2,642 projects funded by the Multilateral Fund, which contains basic information on their status of implementation as of 31 December 2020. However, some updates of activities which took place during 2021 are also included for information purposes. The database results in 11 summary tables which can be found at the end of this report, and which are referred to throughout this narrative.

As can be seen in the following sections, UNDP has disbursed US$ 801,901,579 of the US$ 867,406,601 worth of projects that were approved under the Multilateral Fund since its inception in 1991. These programmes were supposed to eliminate 70,189 ODP T/year, of which 68,839 (98%) were phased out as of 31 December 2020. This demonstrates UNDP's important role in the success of MLF's assistance towards the elimination of Ozone Depleting Substances.

As of the end of 2020, UNDP was active in 51 countries, of which 24 are low volume consuming (LVCs). The vast majority of ongoing projects are implemented using the National Implementation modality, providing countries with larger country ownership.

A large portion of the current ongoing programmes consist of HCFC phase-out management plans (HPMPs). UNDP is the lead agency in 29 countries, including such key countries for the Montreal Protocol, as Brazil, China, and India. In all countries, UNDP is providing technical support for countries to meet their targets set forth under the Montreal Protocol and these three key countries are progressing towards their targets. UNDP is continuing to support China with the implementation of its ICR and Solvent Sector Plans. With the experience gained in the implementation of the Stage I sector plans, and the cooperation and coordination mechanisms established during this earlier implementation, both sector plans have progressed further and all ExCom conditions have been met. In addition, UNDP also acts as the cooperating agency in 18 countries.

Furthermore, in 2020, the COVID-19 pandemic had imposed limitations on project implementation. Despite this challenging situation, UNDP, with its network of country offices, remains fully committed to meet the increased workload and ensure that countries receive the assistance needed to be in compliance with all requirements of the Montreal Protocol.

UNDP has been at the forefront of technical assessments and demonstration projects for potentially cost-effective alternatives to HCFCs that minimize environmental impacts, particularly for those specific applications where such alternatives are not presently available and applicable. Pursuant to ExCom decision 72/40, UNDP has prepared a number of projects to demonstrate climate-friendly and energy-efficient alternative technologies to HCFCs, and feasibility studies on district cooling. UNDP received approval and implemented eight demonstration projects to replace HCFCs with low-GWP alternatives in seven countries. The factsheets on these projects are available at the MLF website. In addition, UNDP also implemented demonstration projects for cost-effective alternatives to HFCs that minimize environmental impacts. Pursuant to ExCom decision 78/3(g), UNDP prepared investment/demonstration projects to phase down HFCs and received approval for five HFC technology demonstration investment projects in Bangladesh, China, Dominican Republic, Mexico and Zimbabwe. The technology demonstration project in Bangladesh has been completed and submitted to the Executive Committee, making it the first HFC demonstration project to have been finalized, thereby providing invaluable information to the Executive Committee for the requirements of the upcoming HFC phasedown. In addition, the HFC technology demonstration activities in Dominican Republic and Mexico have also been completed. UNDP is also supporting 19 countries to undertake enabling

activities for ratification and early implementation of the Kigali Amendment and five countries (China, Costa Rica, Jamaica, Lebanon, and Peru) have completed these activities.

While the COVID-19 pandemic has imposed limitations on project implementation recently, Article 5 countries and UNDP have been able to adapt some of our operations in order to ensure the continuation of the implementation of activities under the Multilateral Fund in 2020. Although missions were not allowed starting in March 2020, UNDP has continued to implement the projects through our country offices, staying in communication with NOUs and providing support remotely (through online meetings) on preparation of annual work plans, review of project-related documents, procurement, clarification of policy and technical issues, submission of tranche requests, drafting of project completion reports, and financial disbursement issues.

Furthermore, UNDP continued to organize several virtual and online-based activities to assist countries in meeting their Montreal Protocol obligations. For example, since April 2020, the UNDP Montreal Protocol team has organized more than 30 webinars aimed at strengthening the capacity of NOUs from Latin America and the Caribbean and the Asia Pacific on the implementation of the Montreal Protocol and the Kigali Amendment. The webinars were organized with specific objectives (informative, exchange of experiences and lessons learned, and sharing of good practices/introduction of new technologies) both for English and Spanish speaking countries and covered such topics such as CO2 as an alternative for the RAC sector, COVID-19 in the AC equipment, and Energy Efficiency in the RAC sector (please see Annex 1 for a full list of the webinars offered in 2020). On the occasion of the World Ozone Day 2020, UNDP organized a webinar titled "Phase out of HFCs in the manufacturing of domestic refrigerators at Walton, Bangladesh" devoted to sharing the experience, results and lessons learnt from the implementation of the first MLF-funded investment project to phase out the use of HFCs. Presentations highlighted key achievements and lessons learnt from the project and also the reflections from the Walton on the sustainability of project results.

Finally, recognizing the importance and the need for capacity building for the implementation of the Kigali Amendment, the UNDP Montreal Protocol team drafted an internal brief aimed at empowering UNDP country office colleagues, among other key stakeholders, to engage with governments on cooling, and to advocate for its inclusion (as appropriate) in their revised NDCs.

II. PROJECT APPROVALS AND DISBURSEMENTS

A. Annual Summary Data (See table 1)

Table 1: "Annual Summary" shows the important summary data on the number of project approvals, corresponding budgets, ODP, and disbursement figures. The table highlights that, cumulatively, as of 31 December 2020, UNDP had a total of 2,642 approved projects under the Multilateral Fund, of which 98 had been canceled or transferred. Of the 2,544 remaining projects, 2,388, or 94% have been completed. They are set to eliminate 70,189 ODP T/year, of which 68,839 ODP T (98%)) have already been eliminated.

As of 31 December 2020, UNDP had received cumulative net project approvals of US$ 906,536,236 (excluding support costs). Of these, UNDP, as of end-2020, had disbursed US$ 801,901,579 excluding all obligations. This translates to 92% of approved funding. Furthermore, an additional US$ 2,876,981 of obligations were outstanding as of end-December 2020, representing orders placed but final payments not yet made.

B. **Interest and Adjustments**

Interest income earned on MLF resources in 2020 is US$ 1,040,734. Once the financial statements are submitted to the MLF Treasurer by the agreed deadline of 30 September, the difference between the provisional and final 2020 interest income can be adjusted against UNDP project approvals at the 88th meeting.

C. **Summary Data By Type and Chemical [CPG, DEM, INS, INV, PRP, TAS, TRA] (See table 2)**

Table 2: Summary Data by Project Type presents an overview of the approvals by the type of project. It demonstrates that of the total amounts approved, 82.2% of the budgets were dedicated to investment projects, 5.8% to technical assistance projects, 6.1% to institutional strengthening and 3.0% to project preparation activities. The remaining 8.5% was dedicated to country programmes and demonstration/training activities.

III. GLOBAL AND REGIONAL PROJECT HIGHLIGHTS

A. **Global Projects:** There is one on-going global programme under implementation by UNDP:

GLO/SEV/82/TAS/346, the Core unit support (2021) programme approved at the 86th meeting of the Executive Committee, that covers the administrative costs of UNDP's Montreal Protocol Unit; and continuation of Core Unit support at a level that allows UNDP to provide the oversight, reporting and assistance needed to sustain the large programmer is critical.

B. **Regional Projects:** There are no ongoing regional projects at this time.

IV. PERFORMANCE INDICATORS

A. Results in 2020

Decision 41/93 of the Executive Committee approved the following indicators to allow for the evaluation of performance of implementing agencies, with the weightings indicated in the table below. Annex X of the report of the 84th meeting of the Executive Committee contained UNDP's 2020 targets. One can see from the table below that UNDP fully met 3 out of 9 of its targets and that its score amounts to 83%.

Category of performance indicator	Item	Weight	UNDP's target for 2020	Result achieved in 2020	Score
1. Approval	Number of tranches approved vs. those planned*	10	40	34→ 85%	8.5
2. Approval	Number of projects/activities approved vs. those planned (including project preparation activities)**	10	15	12 → 80%	8.0
3. Implementation	Funds disbursed	15	$ 22,320,060	$ 27,665,584 →100% (see annex 1, 3)	15.0
4. Implementation	ODS phase-out for the tranche when the next tranche is approved vs. those planned per business plans	25	572.8	530.4 → 92% (see annex 1, 4)	23.1
5. Implementation	Project completion vs. planned in progress reports for all activities (excluding project preparation)	20	70	34→ 100% (see annex 1, 5)	9.7
6. Administrative	The extent to which projects are financially completed 12 months after project completion	10	70% of those due (out of 79, so target is 55)	50 finrevs	9.1
7. Administrative	Timely submission of project completion reports vs.	5	100% of	100% achieved (3	5.0

Category of performance indicator	Item	Weight	UNDP's target for 2020	Result achieved in 2020	Score
	those agreed		those due (3)	individual PCRs submitted and 5 MYA PCR submitted out of 5 planned	
8. Administrative	Timely submission of progress reports and responses unless otherwise agreed	5	On-time	100% achieved (see annex 1, 9)	5.0
TOTAL		100			83

*The target of an agency would be reduced if it could not submit a tranche owing to another cooperating or lead agency, if agreed by that agency.
** Project preparation should not be assessed if the Executive Committee has not taken a decision on its funding.

Note on performance indicators on MYA tranches and corresponding ODP phaseout:
As per our 2020 Business Plan, UNDP prepared and submitted the Stage II HPMP for Brazil to the second meeting of 2020. UNDP complied with the 20% requirement and the tranche was approved. However, there was an agreement to reschedule the payment to the next tranche which will come in 2021. In addition, the delays in Belize Stage II are due to the lead agency. As UNDP's tranches were ready in 2020 as we had planned, the performance target should be adjusted accordingly for these two countries.

In addition, on the indicator for the individual projects, HFC PRPs were submitted throughout 2020 but were not approved due to the lack of the guidelines. These have also been removed from our target.

B. Cumulative completed investment projects (Table 4)

As Table 4: Cumulative completed investment projects shows, a total of 1,244 investment projects have been completed, with a corresponding elimination of 62,903 ODP T. Of the US$ 610,541,426 in their approved budgets in the sectors of Foam, Refrigeration, Phase-out Plan, Aerosol, Solvents, Fumigants, Halon, Process Agents, and Sterilants, 99% has already been disbursed. It took an average of 13 months from approval to first disbursement and 34 months from approval to completion. The overall cost-effectiveness of the projects to the Fund was $9.39 /kg. A breakdown of this group of projects is given by region, sector, implementation modality, etc.

C. Cumulative completed non-investment projects (Table 5)

As Table 5 shows, UNDP has completed 617 non-investment projects excluding project preparation assistance. Of the US$ 110,318,703 in their approved budgets, 99% has been disbursed. It took an average of 13 months from approval to first disbursement and 39 months from approval to completion. A breakdown of this group of projects is given by region, type, sector, implementation modality, etc.

D. Cumulative ongoing investment projects (Table 6)

As can be seen in Table 6, UNDP has 69 ongoing investment projects in the sectors of Phase-out Plans, Foam, Aerosol, and Fumigants with corresponding budgets of US$ 96,726,492. Of this amount, 55% has already been disbursed. It takes an average of 11 months from approval to first disbursement and an average of 38 months from approval to the estimated project completion. The overall cost-effectiveness of the projects to the Fund was $65.77 /kg. A breakdown of this group of projects is given by region, sector, implementation modality, etc.

E. Cumulative ongoing non-investment projects (Table 7)

Table 7 shows that UNDP has 69 ongoing non-investment projects excluding project preparation assistance. Of

the US$ 20,272,848 in approved budgets, 28% has been disbursed. It takes an average of 9 months from approval to first disbursement and 36 months from approval to the estimated project completion. A breakdown of this group of projects is given by region, type, sector, implementation modality, etc.

V. STATUS OF AGREEMENTS AND PROJECT PREPARATION BY COUNTRY

A. Agreements To Be Signed/Executed/Finalized

Since UNDP has a standard legal agreement in place in each developing country that covers UNDP activities in that country, no additional legal agreement is required. There were no specific issues related to this in 2019.

B. Project Preparation By Country, Approved Amount And Amount Disbursed (Table 8)

Table 8: Project Preparation by Country, Approved Amount and Amount Disbursed, indicates active project preparation accounts. Of the ongoing 18 PRP projects listed with US$ 619,643 in associated approvals, 29% has been disbursed.

VI. DESCRIPTION OF KEY ONGOING ACTIVITIES

This section contains a narrative description of the following key ongoing activities:

A. Technology demonstration projects for HCFCs
B. Technology demonstration projects for HFCs
C. ODS destruction demonstration projects
D. Country Highlights

A. Technology demonstration projects for Stage II HCFCs

UNDP has been at the forefront of developing and implementing demonstration projects in various regions and sectors to assess relatively new technological developments for which little or no experience or data exists on technical performance and costs since 1996. The major objectives of such types of demonstrations were to find alternative solutions and cost-saving methods to the Multilateral Fund for the Implementation of the Montreal Protocol in order to carry out HCFC-investment activities in the future years, bearing in mind the impact on the climate. The results of the demonstrations of emerging technologies in various industrial processes under local conditions in the following countries are described in greater details below.

Pursuant to ExCom decision 72/40, UNDP has prepared and received approval for eight projects to demonstrate climate-friendly and energy-efficient alternative technologies to HCFCs, and feasibility studies on district cooling for the following seven countries. Please see brief updates on the status of these projects. More information on all the Stage II HCFC demonstration projects approved by the ExCom can be found on the MLF website. The table below provides details on all the UNDP demonstration projects funded by the MLF for HCFC phaseout.

Project Title	Country	Sector/Subsector/Applications	Status
Pilot project to validate methylal as blowing agent in the manufacture of polyurethane foam	Brazil	PU Foam Non-insulation and insulation foam	Completed
Pilot project for validation of methyl formate as a blowing agent in the manufacture of polyurethane foam	Brazil	PU Foam/Flexible, integral skin, rigid insulation foam	Completed

Demonstration project for conversion from HCFC-22 technology to ammonia/CO2 technology in the manufacture of two-stage refrigeration systems for cold storage and freezing applications at Yantai Moon Group Co. Ltd.	China	Industrial and commercial refrigeration (ICR) /Cold storage and freezing applications	Completed
Demonstration project for conversion from HCFC-22 technology to HFC-32 technology in the manufacture of commercial air-source chillers/heat pumps at Tsinghua Tong Fang Artificial Environment Co. Ltd.	China	Industrial and commercial air-conditioning Unitary and multi-connected air-conditioning (AC) and heat pumps	Completed
Demonstration of the application of an ammonia/carbon dioxide refrigeration system in replacement of HCFC-22 for the medium-sized producer and retail store of Premezclas Industriales S.A.	Costa Rica	Industrial and commercial refrigeration	Completed
Assessment of the use in Colombia of the supercritical CO2 technology	Colombia	PU Foam/Spray foam	Completed
Demonstration project to validate the use of hydrofluoro-olefins for discontinuous panels in Article 5 parties through the development of cost-effective formulations	Colombia	Rigid Foam	Completed
Demonstration of low-cost options for the conversion to non-ODS technologies in polyurethane foams at very small users	Egypt	Rigid Foam	Completed
Conversion from HCFC-22/HCFC-142b technology to CO2 with methyl formate co-blowing technology in the manufacture of extruded polystyrene foam at Feininger	China	Extruded polystyrene (XPS) foam	Completed
Validation of use of HFO-1234ze as a blowing agent in the manufacture of extruded polystyrene foam board stock	Turkey	Extruded polystyrene (XPS) foam	Completed
Validation/Demonstration of low-cost options for the use of hydrocarbons as foaming agent in the manufacture of PU foam	Egypt	PU Foam Rigid and integral skin foam	Completed
Pilot project for validation of methyl formate in microcellular polyurethane applications (phase I)	Mexico	Integral skin foam	Completed
Demonstration project for conversion from HCFC-141b-based technology to isoparaffin and siloxane (KC-6) technology for cleaning in the manufacture of medical devices at Zhejiang Kindly Medical Devices Co. Ltd.	China	Solvents	Completed
Demonstration project for ammonia semi-hermetic frequency convertible screw refrigeration compression unit in the industrial and commercial refrigeration industry at Fujian Snowman Co. Ltd.	China	Industrial and Commercial Refrigeration Compressor	Completed
Demonstration project (R290) for HCFC phase-out in the manufacturing of commercial air conditioning equipment in industrials THERMOTAR LTDA.	Colombia	Commercial Air-Conditioning	Completed
Demonstration Project for Fisheries Sector in the Maldives	Maldives	Refrigeration in Fishery Sector	Completed

Punta Cana District Cooling Feasibility Study	Dominican Republic	Air conditioning sector/not-in-kind technology	Completed

B. HFC investment projects

Pursuant to ExCom decision 78/3(g), UNDP has prepared investment/demonstration projects to phase down HFCs and, so far, has received approval for five HFC technology demonstration projects listed below.

- **Bangladesh**: Conversion from HFC-134a to isobutane as refrigerant in manufacturing household refrigerator and of reciprocating compressor of HFC-134a to energy efficient compressor (isobutane) in Walton Hi-Tech Industries Limited

ExCom Decision 80/42(a) approved the first HFC phase-down investment project in support of the Kigali Amendment, assisting Walton Hitech Industries Limited, Bangladesh, to convert the refrigerant used by this domestic refrigerator manufacturing facility from HFC-134a to isobutane (R-600a), including the conversion of its compressor manufacturing facility. Walton has an installed capacity of 3 million units of domestic refrigerators and of 4 million compressors (the final Report on Walton´s conversion is expected to be considered at the 86th ExCom).

UNDP supported the project implementation, which started in January 2018 and was operationally completed in December 2019, spanning 24 months of implementation, and meeting the original timeframe agreed under the project. The project included a final safety audit on the installation. The conversion has successfully phased-out 197.30 metric tonnes of HFC-134a at Walton, with additional reduction of 33.30 metric tonnes of HFC-134a per annum in the servicing sector as an additional early phase-down commitment from the Government of the Bangladesh. In terms of accumulated direct emissions, following the IPCC Methodology, the conversion from HFC-134a to HC-600a at Walton will avoid the direct emission of 7,978,873 tons of CO2-equivalent of HFC-134a from 2020 to 2050.

A complementary K-CEP project also supported the development of improved design of the fixed-speed compressors to increase the energy efficiency performance of domestic refrigerators. The re-design of refrigerator and the compressor has resulted in 10 to 30% energy savings from baseline induction-based compressors. As result, based on the minimum increased energy efficiency of 10%, the new refrigerators are estimated to avoid the indirect emissions of, at least, 35,025,8090,980 CO2-equivalent tonnes from 2020 to 2050.

- **China**: Conversion from C5+HFC-245fa to C5+HFOs in a domestic refrigerator manufacturer (Hisense Kelon)

Capital conversion was completed by December 2020 and product optimization activities continued in the first half of 2021. According to internal testing, 2% reduction of the energy consumption has been achieved. The project team of Hisense optimized the product by adding Butane as an additional blowing foaming agent which led to the reduction of foaming cost in a certain level while maintaining the performance of products. More details will be presented in the final report that is currently under preparation.

- **Dominican Republic**: Conversion of a commercial refrigerator manufacturing line at Fábrica de Refrigeradores Comerciales, SRL (FARCO) from HFC-134a and R-404A to propane (R-290) as refrigerant

The reconversion project of FARCO in the Dominican Republic was completed in 2020 and the company now has the capacity to produce all of its self-contained commercial refrigeration units with R-290. This is an important milestone not only for the Dominican Republic but also for many of the islands in the Caribbean where FARCO sells their units. The total cost of the project was USD$ 662,986 (USD$ 129,825 from the Multilateral Fund, USD$ 50,000 from the government of Canada and USD$ 483,161 from FARCO). With the conversion of FARCO, 3.95 mt of HFC-134a and R-404A will be phased out. The project was accompanied with training of technicians in the safe handling of flammable refrigerants to assure that the new products can operate safely. This is an important project for the implementation of the Kigali Amendment in the country.

- **Mexico**: Conversion of domestic refrigeration manufacturing facility from HFC-134a to isobutane as a refrigerant and conversion of compressors manufacturing facility from HFC-134a-based to isobutane-based at Mabe Mexico

Reconversion process completed at MABE Mexico. Mabe has six (6) manufacturing line producing domestic refrigerators using HFC refrigerant, R-134a. All lines have been fully reconverted and can use R600a safely. Safety audit was completed at both the compressor and refrigerator manufacturing plant . The project was approved at the 81st meeting of the ExCom, held in June 2018, for a total agreed amount of USD 2,700,000 plus support costs. The implementation started at the end of 2018 and was operationally completed in June 2020. Additional co-finance of 500,000 USD was provided by the Government of Canada and 250,000 USD by K-CEP to support the improvement in Energy Efficiency. The project phased out a total of approximately 198 MT of HFC 134a, which is equivalent to 283,140 MT of CO2-eq. R600a was chosen as the environmentally friendly alternative that was introduced at MABE and it only contributes to 99 MT of CO2-eq per year. MABE estimated to total cost involved with the reconversion to be more than 27 m USD in ICCs and IOCs and the MLF contribution is therefore estimated at around 15 % of the total cost.

- **Zimbabwe**: Conversion from HFC-134a to isobutane in the manufacture of domestic refrigerators at Capri (SME Harare)

One mission took place in early 2020 after which a technology introduction plan was designed and confirmed with the company. Equipment specifications and draft contractual arrangements were formulated, with a proposal to initiate works by Capri using earlier committed cofinancing. The company has been reviewing the proposal jointly with NOU and UNDP, in the context in which the country is. Capri informed it is facing challenges currently to confirm cofinance due to the economic conditions affected by COVID-19. An extension will be required to undertake the activities for realization of co-financing commitments from Capri and undertaking the actual conversion. Capri company was informed of the additional bilateral allocation of the funding to support the future technological transition at its premises. Specific procedures were put into effect. While COVID imposed restrictions have temporarily limited production, the situation gradually stabilizes. UNDP supports the company in realizing the earlier committed co-finance resources, including from the company's sources and national development funds. Once the co-finance support is firmly confirmed as in place, further steps on the conversion of the company will be implemented according to the approved plan. Additional reporting will follow.

C. **HFC Enabling Activity projects**

As highlighted earlier in the report, UNDP is providing support to 19 countries to undertake their HFC enabling activities for ratifying and early implementation of the Kigali Amendment. For more details on

the status of these activities, please see the table below.

Country	MLF Number	Project Title	Latest Status
Bangladesh	BGD/SEV/81/TAS/52	Enabling activities for HFC phase-down	Ratified Kigali on 8 June 2020. RAC servicing sector needs assessment and Alternatives assessment research work completed. Draft National Strategy prepared. Licensing system established
Belize	BZE/SEV/85/TAS/37	Enabling activities for HFC phase-down	Country has not ratified Kigali yet. International and local consultants hired. Workplan agreed and consultations with stakeholders started. Consumption survey is in progress and first draft of ratification roadmap finalized.
Chile	CHI/SEV/80/TAS/03+	Enabling activities for HFC phase-down	Ratified Kigali on 19 Sept 2017. Virtual meeting conducted with customs authorities to increase awareness on the Kigali Amendment and country's commitments by the international expert supporting the project. The country has a license system in place, where importers must register and inform the customs authority on each import (substance, quantity, etc.). A quota distribution scheme has not been established.
China	CPR/SEV/80/TAS/04+	Enabling activities for HFC phase-down	The government of China announced the acceptance of the Kigali Amendment in April and ratified the amendment in June 2021. The amended Regulation on the Administration of Ozone-depleting Substances (draft) has been approved in May in principle at the ministerial executive meeting of MEE. Substantial progress has been made for the preparation of HS code with codes designated for 18 HFCs and 4 blends. HFC data collection is being conducted and methodology for data collection is being improved. Initial research on national strategy has been completed. The report is to be finalized. The HFCs data collection and reporting system has been established and methodology for data collection is being improved. Initial research on national strategy has been completed.
Colombia	COL/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 25 Feb 2021. An evaluation was conducted to the terms of reference for the environmental licenses for HFC imports and export. Currently, the country has in place a mandatory environmental license to all importers of HFC.
Costa Rica	COS/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 23 May 2018. The final report being prepared by the NOU in Costa Rica.
Cuba	CUB/SEV/81/TAS/57	Enabling activities for HFC phase-down	Ratified Kigali on 20 June 2019. Legal framework assessment to foster control to HFC was completed and under discussion with local authorities. Awareness raising material was produced. The country has a system in place to

			registry importers and imported quantities of HFC.
El Salvador	ELS/SEV/81/TAS/37	Enabling activities for HFC phase-down	Country has not officially ratified Kigali yet, although it has been approved locally by the National Assembly (Decree No. 859 from April 26,2021). Awareness raising material produced. Currently, the country has not a license system for the control of HFC; as part of the enabling activity project, an assessment of the needs and gaps of the current legal framework, including license system, was conducted.
Fiji	FIJ/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 16 June 2020. Stakeholders Validation Workshop was held in February 2021. EA report is under preparation. HFC licensing system established.
Haiti	HAI/SEV/84/TAS/23	Enabling activities for HFC phase-down	Country has not ratified Kigali yet. Results from the survey in process of being analyzed. Stakeholder consultations for Policy Components related to the ratification of the Kigali Amendment is in process. Awareness-raising activities scheduled to take place in September 2021.
Iran	IRA/SEV/82/TAS/232	Enabling activities for HFC phase-down	Country has not ratified Kigali yet. National strategy surveyed continued but limited due to COVID-19 spread worsening in the country. Licensing System is under development.
Jamaica	JAM/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Country has not ratified Kigali yet. Final report is being prepared. This activity has been financially completed.
Lebanon	LEB/SEV/80/TAS/02+	Enabling activities for HFC phase-down	Kigali Amendment on 5 Feb 2020. The draft decree for the amendment of the ODS licensing system to include the controlled substances (HFCs) is completed and submitted for Cabinet approval for formal establishment. Procurement of Equipment and Tools for the Refrigeration and Air Conditioning Center at Al Amal.
Moldova	MOL/SEV/85/TAS/41	Enabling activities for HFC phase-down	Country has not ratified Kigali yet. The project documentation has been sent for clearance to the government and approved for commencement of activities. Project documentation has been signed between UNDP and the government (MEPA). Initial stakeholder meeting has taken place in April 2021. Currently, a project team is being constituted to progress more with the implementation phase. A related project's extension request has been prepared and submitted to the Secretariat and Executive Committee for approval.
Panama	PAN/SEV/81/TAS/46	Enabling activities for HFC phase-down	Ratified Kigali on 28 Sept 2018. Awareness material prepared and produced. Assessment of training institutions was completed. National Roadmap to phase down HFC is being prepared. The country has a license system in place, where

			importers must register and request clearance by the NOU for each import. A quota distribution scheme has not been established.
Paraguay	PAR/SEV/81/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 1 Nov 2018. Virtual meetings conducted with stakeholders to increase knowledge of the Kigali Amendment. COVID-19 situation in the country has prevented in-person meetings and limited travel. The country has a license system in place, where importers must request clearance by the NOU through an on-line system. A quota distribution scheme has not been established.
Peru	PER/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 7 Aug 2019. Final report prepared and this activity has been financially completed. Licensing system fully adapted to include HFCs through Ministerial decree.
Trinidad and Tobago	TRI/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 17 Nov 2017. Final report is being prepared. This activity has been financially completed. Licensing system fully adapted to include HFCs and their sectors.
Uruguay	URU/SEV/80/TAS/02+	Enabling activities for HFC phase-down	Ratified Kigali on 12 Sept 2018. Virtual meetings conducted with stakeholders to increase knowledge of the Kigali Amendment. COVID-19 situation in the country has prevented in-person meetings and limited travel. The country has a license system in place, where importers must request clearance by the NOU through an on-line system. A quota distribution scheme has not been established.

D. **ODS destruction demonstration projects**

The UNDP Montreal Protocol & Chemicals Unit has been supporting countries to take steps to manage their stocks of ODS, which cannot be reused in a sound way. The potential for recovery, proper management and final disposal of such unwanted ODS and ODS containing appliances/equipment banked, have been proven as being possible in developed countries if the proper legislation and price incentives, as well as business opportunities, exist. However, the applicability of banks management schemes in developed countries needs to also be demonstrated in Article 5 countries. The Executive Committee has approved preparation activities for Brazil, Colombia, Cuba, Georgia, Ghana and India, to address ODS waste management leading to ODS destruction. Five such projects (Brazil, Colombia, Cuba, Georgia, and Ghana) have been submitted and approved by the Executive Committee in prior years.

The project in **Brazil** is advancing in both directions: strengthening of the collection center network (reclaim centers) and testing of the destruction facility. Cylinders, equipment and tools were delivered to reclaim centers and the procurement process of lab equipment was prepared and launched. The laboratory equipment was delivered at Reclaim Centers in December 2018, including the Gas Chromatography System (GC). The GC installation and training has already been stared and it is expected to be completed by 2020. The staff from four Reclaim Centers were trained on AHRI 700 tests and lab routines. The company for destruction (Essencis) was identified and the contract has been signed. Essencis' incinerator has already completed the installation of equipment according to requirements. Laboratory equipment was installed in 3 reclaim centers. GC was also installed in 3 reclaim centers. The same centers trained by recognized experts. Essensics performed the process adjustments in September and the actual test burns

were conducted in October. Test burn results have come out positively and the project can advance with the subsequent phases of the implementation. Some quantities of CFCs have been disposed of.

The project in **Colombia** was completed in the beginning of 2018. A review of legal framework for the management of ODS waste was conducted and comments to proposed waste management regulations were made. Support was provided for the implementation of "Red Verde" for the collection of old refrigerators. One destruction test was conducted. The final report has been completed and was submitted to ExCom 81. It is important to note that additional tests would be needed for HFCs, as this will be a challenge for the future under the Kigali Amendment. The recollection scheme and dismantling of old refrigerators at a reasonable cost an important factor for the sustainability of the operation. The future of the recollection and disposal scheme is being financed via an Extended Producer Responsibility programme. "Red Verde" continues the collection of ODS-containing refrigerators in 6 cities nation-wide.

D. Country Highlights (January – December 2020)

UNDP has been at the forefront of innovative solutions for countries to address their Montreal Protocol compliance obligations. UNDP's work has resulted in market transformation for the introduction of environment-friendly products and corresponding policy and technological advances and has bought to countries access to emerging technologies, reduced energy bills for consumers, fostered innovation, and created a more equitable market for greener products, allowing indigenous manufacturers to maintain competitiveness.

The next section showcases several prominent examples showing the impact of UNDP's support at the country level.

Brazil

The Government of Brazil banned the use of HCFC 141b as blowing agent in the foam sector by the end of 2019 and effective as of January 1st, 2020, no additional imports of HCFC 141b for the foam sector has taken place. The government and UNDP jointly with the implementation unit of the Foam Sector plan have been working hard to make a sustainable transformation of the foam sector towards low GWP alternatives. There have been challenges, especially with the supply of HFOs in large quantities at commercially realistic costs, combined with the increased availability in the national market of HFC 365/227 at highly competitive prices and which are strongly promoted by an international chemical producer. These are all factors that have delayed the planned transformation of the sector. The pandemic has also made the transformation more difficult given the effect it has had on the economy in Brazil as well as on the ability of companies to operate. The team has provided strong and continuous technical support to all the System Houses and end-users in the foam market in Brazil. Furthermore, a new marketing strategy is also being implemented to motivate end-users to adhere to the Brazilian HPMP.

China

China completed implementation of the Solvent and ICR Sector Plans of Stage I of the HPMP. Starting in 2011, the sector plans were completed in 2017 and 2019 respectively. The Solvent and ICR Sector Plans for the Stage II of the HPMP were approved in 2016 and are under active implementation and progressing well despite late approval of the third (2018) tranche.

Under the Stage I Solvent Sector Plan, 152 production lines in 9 enterprises in the medical devices, metal and electronic industries were converted to three main zero-ODP, low-GWP alternative solvents, namely KC-6, hydrocarbon and water-based solvents. Together with two production lines converted under a demonstration project with separate MLF funding, a total of 154 production lines were converted, phased

out 638.112 MT of HCFC-141b, contributing to a direct GHG emission reduction of 442,211 tons of CO2 equivalent.

With the completion of the Stage I of the ICR Sector Plan, 34 manufacturing lines in 18 enterprises were converted to zero-DOP, low-GWP alternative technologies. Including three demonstration projects (Yantai Moon, Qinghua Tongfang and Fujian Snowman) that were approved with separate MLF funding and phase-out by non-A5 owned enterprises with their own resources, a total of 8,721.47 MT of HCFC-22 were phased out, exceeding the Stage I of the HPMP target of 8.450 MT, contributing to China's achieving consumption freeze in 2013 and the 10% reduction in 2015. Stage II ICR Sector Plan was approved in 2016 with annual tranche for 2016-2021. While implementation has been progressing well despite of pending approval of the third (2018) tranche for more than one year. By ExCom decision 84/69, funding for the Stage II ICR Sector Plan would be extended to 2026 with the revised action plan to be submitted to the 86th ExCom meeting for review and approval.

The ICR sector in China has a wide range of products used in various applications. Under the Stage I and Stage II ICR Sector Plan, zero ODP and low GWP alternatives have been emphasized in the alternative technology selection for conversion projects, alternatives selected includes HFC-32, CO2/NH3, R290, HFOs and its blends, and a small part of R134a and R410 in the stage-I HPMP. Market uptake of the new technologies have progressed over time in ICR sector particularly well in the refrigeration applications using natural refrigerants but was relatively slow in the air conditioning and heat pump sub-sector using R32 technology due to various market obstacles. Low-GWP alternatives including CO2, NH3, HFOs and its blend and HFC-32 will continue to be vigorously promoted during the implementation of Stage II ICR Sector Plan. R&D will be conducted and testing and assessment of potential low-GWP alternative technologies will be carried out to support the sector phase-out, and the best climate friendly alternative technology will be selected for all phase-out activities.

In response to ExCom decisions, UNDP as the lead implementing agency for the HPMP, submitted, on behalf of the Government of China, a report "Review of China's Current Monitoring, Reporting, Verification and Enforcement Systems in accordance with HCFC Consumption and Production Phase-out Management Plan Agreements," and the progress report regarding actions taken with a view to strengthening of legislation on ODS and implementation.

Colombia

The National Ozone Unit in Colombia worked closely with the flower export sector to test the use of R-290 in cold rooms. The Colombian government worked together with the flower sector to identify a low environmental impact technology for the cooling systems of the flower post-harvest process. A demonstration was carried out on the use of HC-290 hydrocarbon as a refrigerant in a cooling system for a flower dispatch cold room. This demonstration allowed the establishment of safety measures for the use of the system, energy savings and the steps required to achieve a complete elimination of the refrigerant with ozone depletion potential in this sub-sector. This demonstration has provided useful experience for the future work under the Kigali Amendment.

India

India has successfully banned the imports and use of HCFC-141b as a blowing agent (in form of pure substance or mixed in polyols/fully formulated systems), on 31 December 2019, in the manufacturing of polyurethane (PU) foams. India has consciously chosen a path for environment friendly and energy efficient technologies while phasing out Ozone Depleting Substances (ODS), adopting low-GWP alternatives such as pentanes (hydrocarbons), HFOs and Methyl Formate (Ecomate®), being one among the few Article 5 countries globally to establish early bans on the use of this chemical.

The Ministry of Environment, Forest and Climate Change (MoEFCC) brought out a notification in the Gazette of India through which the issuance of import license for HCFC-141b is prohibited from 1st January 2020 under Ozone Depleting Substances (Regulation and Control) Amendment Rules, 2019 issued under the Environment (Protection) Act, 1986, and the MOEF&CC continued to coordinate the enforcement efforts to sustain this ban since then. It should be noted that the country has been severely affected by COVID-19 pandemic which resulted in great adverse impacts on the progress of the project implementation during 2020 and 2021 with temporary closure of industries to limit the spread of COVID-19. The Ozone Cell of the MoEFCC continued to deploy its best efforts to mitigate the impacts, such as, an early Technical Assistance mission to India that took place in the 1st Quarter of 2020 followed by close assistance through digital/distance means in a bid to continue delivering be highest standards of technical support to local companies, as well as limited but continued in site verification of completion of conversions.

Indonesia

Indonesia, upon the completion of PU Foam and RAC Servicing Sector Plans of the Stage I of its HPMP in 2019, has phased-out the consumption of HCFC-22 in their domestic and commercial refrigeration and air conditioning manufacturing industries by banning the new production from 2020 onwards, and the Country has been successfully enforcing this sector phase-out with a strong and coordinated multi-stakeholders approach under the oversight of the Ministry of Environment (KLHK).

The industries who received the support from the Stage I of the HPMP have completed their conversion to HFC-32 in the Room and Commercial Air Conditioning Sectors, and to HC-290 in commercial refrigeration sector, while these industries had started to market their products in 2020. Indonesia has faced great challenges as the Article 5 Party in forefront of the adoption of the HFC-32 in the Air Conditioning Sector, with the approval of its Stage I of the HPMP in 2012, when this alternative technology was still considered "novelty", and required great efforts from the Government and other public and private sector stakeholders to establish the previously nonexistent supply chain of parts and components for HFC-32 technology and great engagement with several countries that are part of the global supply chain of HFC-32 based products to exchange experiences and internalize lessons learned.

Despite the negative impacts of COVID-19 on the national economy, the Ozone Unit has been able to deploy mitigation mechanisms to protect the Government Staff – as well as the stakeholders – which allowed operational and financial closure of the Stage I of the HPMP to be completed by December 2020, while the Final Progress Report was delivered on June 2021.

Lebanon

The country had to face a triple crisis in 2020: institutional (with continuing social unrest and demonstrations); public health related (waves of COVID-19 pandemic); and environmental with the massive explosion in the harbor of Beirut in August 2020, and its aftermath in terms of human and environmental impact. This was also compounded by the economic crisis. The National Ozone Office of Lebanon was directly impacted, with effects of the industrial accident of August immediate on the office of the Ministry of Environment, and physical damages to the office area of the NOO. In spite of this, demonstrating remarkable resilience, the NOO and the HPMP team progressed on all components of its Stage 2 HPMP implementation, ensuring that the technical solutions were found in the area of manufacturing phase-out and continuing to equip new training centres for the servicing sector. This was facilitated by the flexibility granted within the HPMP between sectors by the MFS and the ExCom, which enabled to ensure the timely identification of the technology solutions for the manufacturing sector. With this progress, the 3rd tranche of Stage 2 was presented and approved by the ExCom at the 86th ExCom

and approved end of 2020, one year ahead of its planned approval, along with an accelerated schedule for overall completion of Stage 2. In addition, Lebanon is preparing in parallel to embark on concrete work related to the HFC phase-down (with the PRP for the Kigali HFC phase-down plan) and continuing to pursue energy efficiency promotion in the RAC sector with the support of the Kigali Cooling Energy efficiency Programme.

Gender mainstreaming promoted: All countries in Africa and West Asia for which UNDP is the lead agency have taken further steps to fully include gender mainstreaming in their programming. The 86th ExCom was the occasion of 3 IS renewal submissions (Ghana, Lebanon, Nigeria) and for each of those, a specific component was added for the next phase focused on gender mainstreaming as per the latest guidance of the ExCom. This will ensure that measurable concrete indicators are used to monitor the progress in this regard in institutional strengthening activities. This included, in particular, targeted awareness raising and training towards women in the RAC sector. UNDP will keep promoting the streamlining of practical tools and ensure South-South cooperation between Article 5 Countries on this gender mainstreaming dimension. It was also noticeable that in the servicing sector of Stage 2 HPMP in Nigeria, a specific gender analysis was conducted as part of the inception activities in the sector.

Virtual training sessions in Latin America and the Caribbean

The pandemic brought an abrupt halt to the way that National Ozone Units are normally operating around the world. UNDP decided to set up a series of virtual trainings and capacity building webinars that ranged from technological to policy issues. More than 30 webinars were organized in 2020 in English and Spanish with internationally recognized experts (please see Annex 1 for a list of the webinars that were organized). There was a special focus on the new requirements that A5 countries will face under the Kigali Amendment. Webinars provided good insight into the new low GWP technologies that will have to be adopted in coming years by A5 countries to make a transition towards natural refrigerants in the RAC sector. This was accompanied by technical sessions on how the servicing sector must be upgraded to be able to safely handle all the requirements of this transition with the increased challenges from the flammability, toxicity, and high pressure of some alternative technologies.

VII. ADMINISTRATIVE ISSUES (OPERATIONAL, POLICY, FINANCIAL, OTHER)

A. Meetings Attended by UNDP in 2020

From	To	Location	Description
14-Jan-20	17-Jan-20	Peru	Policy Support and Programme Oversight
15-Jan-20	17-Jan-20	Cambodia	Policy Support and Programme Oversight
16-Feb-20	21-Feb-20	Malaysia	Policy Support and Programme Oversight
17-Feb-20	21-Feb-20	Mexico	Policy Support and Programme Oversight
18-Feb-20	22-Feb-20	Dominican Republic	Policy Support and Programme Oversight
23-Feb-20	28-Feb-20	India	Policy Support and Programme Oversight
25-Feb-20	27-Feb-20	Canada	IACM
8-Mar-20	13-Mar-20	Indonesia	Policy Support and Programme Oversight

B. Other Issues

As highlighted earlier in the report, the COVID-19 pandemic has imposed limitations on project implementation in 2020. For example, conducting verifications of HPMP implementation was affected due to the inability of the consultants to travel. UNDP adapted to this situation by arranging for remote

verification processes since field visits during this time was not possible. While delays in project implementation during the pandemic were difficult to avoid, UNDP, with its network of country offices, remains fully committed to adapt its operations to ensure that countries receive the assistance needed to be in compliance with all requirements of the Montreal Protocol.

Annex 1: Virtual trainings organized in 2020

Virtual trainings 2020										
No. webinars	**No. sessions/virtual training**	**Month**	**Year**	**Region or Country**	**Language**	**Title**	**Content**	**Time**	**Attendees/ virtual training**	**% participation of women**
UNDP Montreal Protocol Unit										
1	1	May	2020	The Caribbean	English	National Cooling Plan	National Cooling Plans could contribute to a transition towards climate friendly refrigerants, linkages and integration of regulation and awareness policies, as well as financial support for their implementation	60 min	43	37
2	1			Latin America	Spanish			60 min	25	48
3	3	April	2020	The Caribbean	English	CO2 as an alternative for the RAC sector	CO2 transcritical is an alternative can reduce the use of the use of HCFC/HFC in refrigeration sector	180 min	No data available	No data available
4	3	May		Latin America	Spanish			180 min	156	40
5	3	April	2020	The Caribbean	English	Policies to implement the Kigali Amendment	This virtual training was designed to present the new challenges related to the control and phase-out of HFCs in the region	180 min	Data not available	Data not available
6	3	May		Latin America	Spanish			180 min	106	62
7	1	April19	2020	The Caribbean	English	COVID-19 in the AC equipment	The spread of Coronavirus that can occur in facilities that require RAC servicing is a growing concern for all personnel / technicians	60 min	No data available	No data available
8	2			Latin America	Spanish			120 min	No data available	No data available
9	3	July	2020	The Caribbean	English	Energy Efficiency in the RAC sector	Energy efficiency is a new element that needs to be considered within the actions for the successful implementation of the Kigali amendment.	180 min	46	46
10	3			Latin America	Spanish			180 min	97	55
11	2	August	2020	The Caribbean	English	Ammonia as an alternative for the industrial sector	The industry has developed different types of cooling systems, equipment and specialized facilities for specific types of products. The market offers	120 min	104	31
12	2			Latin America	Spanish			120 min	106	21

Virtual trainings 2020										
No. webinars	**No. sessions/virtual training**	**Month**	**Year**	**Region or Country**	**Language**	**Title**	**Content**	**Time**	**Attendees/ virtual training**	**% participation of women**
							different refrigerant alternatives that can be used according to the needs of each user. One of the alternatives for this sector is ammonia as a refrigerant gas			
13	2	October	2020	The Caribbean	English	District Cooling	District Cooling refers to cooling that is commercially supplied through a cold/heat carrier medium against payment on the basis of a contract	120 min	63	31
14	2			Latin America	Spanish			120 min	144	30
15	2	November	2020	The Caribbean	English	ODS disposal-Colombia	This demonstration project was approved with the objective of developing technology and infrastructure for the proper final disposal of ODS that cannot be recycled or used in different cooling systems in Colombia	120 min	7	57
16				Latin America	Spanish				71	48
17	2	July	2020	Latin America	Spanish	Industrial reconversion of the Thermotar company-Colombia	This demonstration project was implemented in the Thermotar company in Colombia to replace the use of HCFC-22 with a natural refrigerant R-290 for the manufacture of AC equipment	150 min	106	32
18	2	August	2020	Latin America	Spanish	Ammonia as an alternative for the RAC sector	The industry has developed different types of cooling systems, equipment and specialized facilities for specific types of products. The market offers different refrigerant alternatives that can be used according to the needs of each user. One of the alternatives for this sector is ammonia as a refrigerant gas.	120 min	106	21

Virtual trainings 2020										
No. webinars	**No. sessions/virtual training**	**Month**	**Year**	**Region or Country**	**Language**	**Title**	**Content**	**Time**	**Attendees/ virtual training**	**% participation of women**
19	1	August	2020	Latin America	Spanish	Challenges to adopt Hydrocarbons as an alyternative for the RAC sector	To know and understand the challenges posed by the use of hydrocarbons as refrigerant gases in the RAC sector	60 min	44	41
20	1	September	2020	Latin America	Spanish	Recovering, Recycling and Reclamation refrigerant gases	To show the process of Recovering, Recycling and Reclamation (RRR) of HCFC/HFC refrigerants	60 min	39	36
21	1	September	2020	Latin America	Spanish	Women in the RAC sector-Peru	To share the experience in Peru to train to technician women in the RAC sector	60 min	41	63
22	1	November	2020	Latin America	Spanish	Polyurethane foams	This session addressed the current situation and perspectives on the use of HFCs for the polyurethane foam sector in LA.	60 min	35	60
23	2	June	2020	The Caribbean	English	Imports and Exports of ODS	To identify critical points for the control of HCFCs and HFCs as well as providing you some practical tools to support you on the process	120 min	129	44
24	2	June	2020	The Caribbean	English	Hydrocarbons as an alternative for the RAC sector	This virtual training addressed important points on safe handling, as well as the tools and equipment required for the use of hydrocarbons	120 min	44	30
25	1	September	2020	Asia Pacific	English	Phase out of HFCs in the manufacturing of domestic refrigerators at Walton, Bangladesh	This webinar will share the experience, results and lessons learnt from the implementation of the first HFC investment project approved by the MLF	120 min	N/A	N/A
26	1	October	2020	The Caribbean	English	Data management	To show a tool for data management on imports and of Montreal Protocol controlled	60 min	14	44

Virtual trainings 2020										
No. webinars	**No. sessions/virtual training**	**Month**	**Year**	**Region or Country**	**Language**	**Title**	**Content**	**Time**	**Attendees/ virtual training**	**% participation of women**
							substances, including their equivalent in CO2			
27	10	October	2020	Costa Rica	Spanish	International Ozone Day Celebration	The National Ozone Unit-Costa Rica launched different virtual sessions to celebrate the International Ozone Day (CO2, ammonia, hydrocarbons and among others)	900 min	No data available	No data available
28	3	September	2020	Peru	Spanish	International Ozone Day Celebration	The National Ozone Unit-Peru launched different virtual sessions to celebrate the International Ozone Day (CO2, ammonia and hydrocarbons)	270 min	No data available	No data available
29	2	November				Alternative refrigerants in the RAC sector	The National Ozone Unit-Peru launched different technical virtual sessions to technicians in the RAC sector (energy efficiency and ammonia)	150 min	No data available	No data available
30	5	September	2020	Uruguay	Spanish	International Ozone Day Celebration	The National Ozone Unit-Uruguay launched different virtual sessions to celebrate the International Ozone Day (ammonia)	450 min		
31	5	November				Ammonia as an alternative for the RAC sector	The National Ozone Unit-Uruguay launched a technical virtual training to tecnicians in the RAC sector	450 min		
32	1	October	2020	Cuba	Spanish	CO2 as an alternative for the RAC sector	CO2 transcritical is an alternative can reduce the use of the use of HCFC/HFC in refrigeration sector. This session was requested by Ozone Office for training of its staff	60 min	4	25

Virtual trainings 2020										
No. webinars	**No. sessions/virtual training**	**Month**	**Year**	**Region or Country**	**Language**	**Title**	**Content**	**Time**	**Attendees/ virtual training**	**% participation of women**
33	3	November	2020	Suriname	English	Alternative refrigerants in the RAC sector	The National Ozone Unit-Suriname launched a technical virtual training to tecnicians in the RAC sector (energy efficiency, ammonia and implementation of the Montreal Protocol and its Kigali Amendment)	180 min	28	30
34	1	July	2020	Maldives	English	Webinar for Maldives Refrigeration and Air conditioning technicians	Safe Installation, Service and Repair of R-290 based-air conditioners	1.5 hours	22	3 women from NOU and UNDP
35	1	July	2020	Fiji and Timor Leste	English	Sharing of experiences for replacement incentive programme by Sri Lanka and Cambodia	Designing replacement incentive programme, promotion of scheme, selection criteria, monitoring, and sharing of experiences between countries	1 hour	NOU team of Fiji and Timor Leste (12 participants), Sri Lanka NOO and Cambodia NOO	3 (25%)
36	1	August	2020	Maldives and Fiji	English	Webinar on retrofitting of fisheries vessels	Retrofitting of fishery vessels and guidelines for retrofitting, alternatives for fishery vessels and experience sharing between Fiji and Maldives	1.5 hours	23	5 women from NOU of Fiji, Maldives and UNDP
37	1	December	2020	Timor Leste	English	Good Servicing Practices on non-ODS and low-GWP technology	Online presentation and demonstration by International Consultant, followed by Q&A, and sharing session from national master trainers.	One day	26 RAC technicians from RAC servicing companies, beneficiary supermarkets, technical institutions, and TL Army Institution.	2 women in NOU team

ANNEX 2: Tables related to the Performance Indicators

1. Performance Indicator 1: MYAs

Multi-year agreements submitted in 2020 are listed in the following table.

MLF Number
BRU/PHA/85/INV/26
CUB/PHA/85/TAS/63
ELS/PHA/86/INV/39
FIJ/PHA/86/INV/35
GEO/PHA/85/INV/42
JAM/PHA/85/INV/41
NEP/PHA/86/INV/40
SRL/PHA/85/INV/54
TRI/PHA/86/INV/37
ARM/PHA/86/INV/24
BRU/PHA/86/INV/26
CHI/PHA/85/INV/201
CPR/PHA/85/INV/598
CPR/PHA/85/INV/600
CUB/PHA/86/INV/63
DOM/PHA/86/INV/68
IND/PHA/86/INV/479
IRA/PHA/86/INV/243
JAM/PHA/86/INV/42
KYR/PHA/85/INV/42
LAO/PHA/86/INV/36
LEB/PHA/86/INV/94
MOL/PHA/86/INV/41
NEP/PHA/86/INV/41
PAN/PHA/85/TAS/51
PER/PHA/85/INV/57
SRL/PHA/86/INV/55
SWA/PHA/86/INV/28
TRI/PHA/86/INV/38
URU/PHA/85/INV/75
ZIM/PHA/86/INV/60
DOM/PHA/86/INV/69
PAN/PHA/86/INV/51
URU/PHA/86/INV/75

2. Performance Indicator 2: Individual Projects

The number of individual projects approved in 2020 are listed in the following table.

MLF Number
BRA/SEV/86/INS/324
BZE/SEV/85/TAS/37
COL/PHA/85/PRP/109
GEO/SEV/85/INS/43
GHA/SEV/86/INS/41
GLO/SEV/86/TAS/354
IRA/SEV/86/INS/249
LEB/SEV/86/INS/96
MOL/PHA/86/TAS/42
MOL/SEV/85/TAS/41
NIR/SEV/86/INS/154
SRL/SEV/86/INS/57

3. Performance Indicator 3: Funds disbursed

2020 Disbursements	$ 27,665,584

4. Performance Indicator 4: 2020 ODS phase-out

The associated ODP for 34 tranches approved in 2020 is 530.4.

5. Performance Indicator 5: Projects completed in 2020.

The following 34 projects were completed in 2020.

Correct Code	Date Completed (Actual)
ARM/PHA/77/INV/18	Dec-20
ARM/PHA/84/TAS/23	Dec-20
BRU/PHA/82/INV/23	Dec-20
COL/PHA/81/TAS/104	Jul-20
COS/PHA/81/PRP/58	Mar-20
COS/PHA/83/INV/59	Dec-20
CPR/PHA/77/INV/580	Dec-20
CPR/PHA/80/INV/586	Dec-20
CUB/PHA/68/INV/50	Nov-20
CUB/PHA/82/INV/59	Dec-20
CUB/PHA/82/TAS/60	Dec-20
FIJ/PHA/82/TAS/35	Dec-20
GHA/PHA/81/INV/46	Dec-20

GHA/PHA/81/PRP/44	Dec-20
GHA/SEV/82/INS/47	Dec-20
GLO/SEV/84/TAS/349	Dec-20
IDS/PHA/71/TAS/200	Jun-20
IDS/PHA/76/INV/208	Jun-20
IND/PHA/77/INV/468	Dec-20
IND/PHA/77/INV/469	Dec-20
IND/PHA/82/INV/473	Dec-20
IRA/PHA/84/INV/235	Dec-20
IRA/PHA/84/INV/238	Dec-20
KYR/PHA/81/INV/40	Dec-20
LEB/PHA/81/INV/91	Dec-20
MEX/REF/81/INV/187	Nov-20
NIR/SEV/82/INS/152	Nov-20
PER/PHA/80/INV/55	Dec-20
SRL/PHA/82/PRP/52	Dec-20
SRL/PHA/82/TAS/51	Dec-20
SRL/SEV/82/INS/53	Dec-20
TRI/PHA/81/INV/35	Dec-20
URU/PHA/77/INV/67	Dec-20
ZIM/PHA/83/PRP/58	Dec-20

7. Performance Indicator 7: Final Revisions

Last year's database 79 projects, of which 55 should have been financially completed in 2020. This year's database counts 50 projects for which a final revision was issued in 2020.

8. Performance Indicator 8: PCRs

100% achieved (3 individual and 5 individual PCRs were due and submitted in 2020).

9. Performance Indicator 9

Progress Report produced on 9 August 2021 as required.