



**Programme des
Nations Unies pour
l'environnement**

Distr.
GÉNÉRALE

UNEP/OzL.Pro/ExCom/88/14
18 octobre 2021

FRANÇAIS
ORIGINAL: ANGLAIS



COMITÉ EXÉCUTIF
DU FONDS MULTILATÉRAL AUX FINS
D'APPLICATION DU PROTOCOLE DE MONTRÉAL
Quatre-vingt-huitième réunion
Montréal, 15 – 19 novembre 2021¹

**RAPPORT PÉRIODIQUE DU PNUD
AU 31 DÉCEMBRE 2020**

1. Le présent document comporte le rapport périodique du PNUD au 31 décembre 2020.²

Introduction

2. Le rapport périodique du PNUD comprend l'état de la mise en œuvre des projets, y compris 18 projets liés aux HFC qui ont été financés au titre des contributions volontaires supplémentaires de 17 Parties non visées à l'article 5 pour fournir un soutien à la mise en œuvre rapide de l'amendement de Kigali.

3. Le Secrétariat a procédé à la révision de l'état de la mise en œuvre des projets en cours pays par pays, en tenant compte des retards de mise en œuvre qui se sont produits par rapport aux dates d'achèvement prévues qui avaient été déclarées en 2020, les retombées possibles de ces retards sur l'élimination des substances réglementées et sur les taux de décaissement prévus. Les analyses figurant dans le présent document utilisent les tonnes PAO comme unité de mesure de toutes les substances réglementées, à l'exception des HFC qui sont exprimés en tm CO₂-éq.³

¹ Des réunions en ligne et un processus d'approbation intersessions auront lieu en novembre et décembre 2021 en raison de la maladie à coronavirus (COVID-19).

² Le rapport périodique est joint au présent document. Les données ont été intégrées dans la base de données du rapport périodique global qui est disponible sur demande.

³ Conformément à la décision 84/12(a)(iv), la mesure des HFC en tm CO₂-éq fait partie des rapports d'avancement soumis à la 88^e réunion.

Portée du document

4. Ce document se compose de plusieurs parties :

Partie I : Projets approuvés au titre des contributions ordinaires au Fonds multilatéral. Cette section présente un résumé de l'avancement de la mise en œuvre des projets en 2020, et le cumulatif depuis 1991 visant toutes les substances réglementées en vertu du Protocole de Montréal, y compris les substances de l'annexe F (HFC); elle contient un examen de l'état de la mise en œuvre de tous les projets⁴ en cours au niveau national ; elle identifie les projets présentant des retards de mise en œuvre et les répercussions possibles sur l'élimination des substances réglementées ainsi que les projets comprenant des questions en suspens aux fins d'examen par le Comité exécutif.

Partie II : Projets approuvés dans le cadre des contributions volontaires supplémentaires en vue d'un soutien au démarrage rapide de la réduction progressive des HFC. Cette section présente succinctement la mise en œuvre des projets de réduction progressive des HFC financés par les contributions volontaires.⁵

Recommandation

5. Le présent document comprend également les annexes suivantes :

Annexe I : Récapitulatif de l'état d'avancement et recommandation concernant chaque projet en cours présentant des questions en suspens portées à l'attention du Comité exécutif.

Annexe II : Analyse du rapport périodique.

PARTIE I : PROJETS APPROUVES AU TITRE DES CONTRIBUTIONS ORDINAIRES AU FONDS MULTILATERAL

Résumé de l'évolution de la mise en œuvre des projets pour 2020 et de la mise en œuvre cumulée

6. La mise en œuvre des projets et des activités par le PNUD pour 2020 et les progrès cumulatifs depuis 1991 jusqu'au 31 décembre 2020 sont récapitulés comme suit :

- (a) **Élimination** : en 2020, 418,1 tonnes PAO⁶ de SAO ont été éliminées de la consommation et 620,2 tonnes PAO supplémentaires de SAO ont été approuvées pour élimination. Depuis 1991, 67 872 tonnes PAO et 224 221 tm CO₂-éq de consommation de substances réglementées avaient été éliminées sur un total prévu de 69 033 tonnes PAO et 240 094 tm CO₂-éq provenant des projets approuvés (à l'exclusion des projets annulés et transférés) ;

⁴ Les projets en cours sont tous des projets qui étaient en cours de mise en œuvre au 31 décembre 2020. Parmi les principaux indicateurs d'évolution figurent : le pourcentage des fonds décaissés et le pourcentage de projets qui ont commencé à décaisser les fonds ; les financements qu'il est prévu de décaisser d'ici la fin de l'année en pourcentage du financement approuvé ; la durée moyenne de retard prévu dans la mise en œuvre ; et les informations fournies dans la colonne des remarques de la base de données des rapports périodiques.

⁵ Conformément à la décision 84/12(b), un rapport d'avancement détaillé donnant un aperçu des objectifs, de l'état de mise en œuvre, des principales conclusions et des enseignements tirés, des quantités de HFC éliminées le cas échéant, du niveau des fonds approuvés et décaissés et des défis dans l'achèvement des projets et des activités figure dans le rapport périodique consolidé (UNEP/OzL.Pro/ExCom/88/12).

⁶Y compris 70,1 tm (100 243 tm CO₂-éq) de HFC éliminées suite à des projets menés en 2020.

- (b) **Décaissements/approbations** : En 2020, 27,7 millions de \$US ont été décaissés et 21,9 millions de \$ US devaient être décaissés sur la base du rapport périodique 2019, soit un taux de décaissement de 126 % par rapport à celui prévu. Au total, 796,36 millions de \$ US ont été décaissés sur le total de 861,36 millions de \$ US approuvés pour décaissement (à l'exclusion des coûts d'appui d'agence), ce qui représente un taux de décaissement de 92 %. En 2020, 30,21 millions de \$ US ont été approuvés pour la mise en œuvre ;
- (c) **Rapport coût-efficacité moyen (en ODP)** : ⁷ depuis 1991, le rapport coût-efficacité moyen des projets d'investissement approuvés menant à une réduction permanente de la consommation s'est établi à 10,97 \$ US/kg. Le rapport coût-efficacité moyen des projets d'investissement par tonne PAO a été de 9,69 \$ US/kg pour les projets achevés et de 68,60 \$ US/kg pour les projets en cours;⁸
- (d) **Nombre de projets menés à terme** : En 2020, 34 projets ont été achevés. Depuis 1991, 2 379 projets ont été menés à bien sur les 2 526 projets approuvés (à l'exclusion des projets clos ou transférés), ce qui représente un taux d'achèvement de 94 % ;
- (e) **Vitesse d'exécution des projets d'investissement** : Les projets achevés en 2020 l'ont été en moyenne 37 mois après leur approbation. Depuis 1991, la durée moyenne d'achèvement des projets d'investissement est de 34 mois après leur approbation. Les premiers décaissements ont commencé en moyenne 13 mois après leur approbation ;
- (f) **Vitesse d'exécution des projets autres que d'investissement** : Les projets achevés en 2020 l'ont été en moyenne 27 mois après leur approbation. Depuis 1991, le délai moyen d'achèvement des projets autres que d'investissement est de 39 mois après leur approbation. En moyenne, les premiers décaissements de ces projets ont eu lieu 13 mois après leur approbation ;
- (g) **Préparation de projets** : Des 540 activités de préparation de projet approuvées jusqu'à la fin de 2020, 522 ont été achevées et 18 sont en cours. En 2020, quatre activités de préparation de projets ont été menées à terme ;
- (h) **Délais de mise en œuvre** : Au total, 147 projets étaient en cours de mise en œuvre à fin 2020, connaissant, en moyenne, un retard de sept mois. Treize de ces projets sont classés comme « projets présentant des retards de mise en œuvre »⁹ qui sont soumis aux procédures d'annulation de projet (car les projets de démonstration, les préparations de projets et le renforcement des institutions ne sont pas soumis à ces procédures) ; et
- (i) **Accords pluriannuels (APA)** : En 2020, 51 accords pluriannuels portant sur les plans de gestion de l'élimination des HCFC (PGEH) étaient en cours de mise en œuvre. Depuis 1991, 148 accords pluriannuels ont été approuvés et 97 accords pluriannuels ont été achevés, ce qui représente un taux d'achèvement de 66 %.

Progression de la mise en œuvre de projets en 2020

7. Suite au processus d'examen, un certain nombre de questions ont été discutées et traitées de manière satisfaisante, à l'exception de 13 projets classés comme projets présentant des retards de mise en œuvre (y

⁷ Y compris 167,8 tm par suite de projets d'investissement liés aux HFC. La rentabilité en CO₂-éq. n'a pas été calculée en raison du faible nombre de projets approuvés.

⁸ Le rapport coût-efficacité plus élevé pour les projets en cours est en grande partie dû aux valeurs inférieures de PAO des HCFC, mais aussi aux moyens d'attribution de l'élimination adoptés par les agences.

⁹ Projets approuvés sur 18 mois avec un décaissement inférieur à 1 %, ou projets qui n'avaient pas été achevés 12 mois après la date d'achèvement proposée dans le rapport d'avancement (décision 22/61) (les projets de démonstration, les préparations de projet et les projets de renforcement institutionnel ne sont pas soumis à ces procédures).

compris 10 projets liés à des composantes d'accords pluriannuels qui sont soumis à des procédures d'annulation de projet, conformément à la décision 84/ 45(c) ; un projet d'assistance technique, un projet d'investissement dans les HFC et une activité habilitante pour l'élimination des HFC dans les pays visés à l'article 5 (« activités habilitantes »). L'annexe I au présent document présente les projets catégorisés comme présentant des retards de mise en œuvre ainsi que la recommandation du Secrétariat demandant la présentation d'un rapport à la 90^e réunion.

8. De plus, un problème a été identifié concernant la préparation de projet d'un PGEH. Cette question figure également en annexe I au présent document. Pour chaque projet en cours, une brève description de l'état d'avancement de la mise en œuvre et des questions en suspens est donnée et une recommandation formulée aux fins d'examen par le Comité exécutif.

9. Les détails de l'avancement de la mise en œuvre des projets associés aux PGEH pour l'Angola,¹⁰ le Brésil,¹¹ le Chili,¹² la Chine,¹³ la Colombie,¹⁴ la République démocratique du Congo,¹⁵ l'Égypte,¹⁶ les Fidji,¹⁷ la Géorgie,¹⁸ l'Indonésie,¹⁹ la Malaisie,²⁰ le Nigéria,²¹ la République de Moldova²² et le Timor-Leste²³ les rapports sur les projets comportant des exigences de rapport spécifiques²⁴ concernant le Brésil (élimination des SAO) et le Ghana (PGEH), ont été présentés à la 88^e réunion. Des recommandations concernant les questions en suspens pour ces projets, y compris l'approbation des demandes de prolongation, le cas échéant, font l'objet d'une discussion dans les sections y relatives de ces documents. Les questions relatives aux PGEH du Bangladesh, du Costa Rica, du Guyana, de la République islamique d'Iran, du Mali, de la Mauritanie et du Soudan du Sud sont abordées dans le document portant sur les retards de soumission des tranches.²⁵

10. Sur les 102 projets en cours (sans compter ceux liés au renforcement des institutions et les préparations de projet), 30 ont vu leur date d'achèvement prévue ajournée depuis le rapport périodique de 2019.

11. Conformément à la décision 82/11(b),²⁶ Le PNUD a demandé la prolongation de la durée d'un certain nombre de PGEH au-delà du 31 décembre 2022 ; ceux qui n'ont pas été soumis dans le cadre des demandes de tranches sont traités dans les rapports sur les projets comportant des exigences de rapport spécifiques.²⁷

12. Conformément à la décision 82/11(c)(ii), le Secrétariat a noté que le renouvellement des projets de renforcement des institutions pour l'Argentine, la Chine et la République bolivarienne du Venezuela n'avait

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 21 UNEP/OzL.Pro/ExCom/88/21

²⁶ Toute demande de prolongation devra être présentée pour approbation par le Comité exécutif avant la date d'achèvement du projet, en prenant note qu'aucun nouvel engagement ne sera pris avant que la prolongation n'ait été approuvée.

²⁷ UNEP/OzL.Pro/ExCom/88/18

pas été soumis au cours des deux dernières années ; les principales raisons sont des décaissements en baisse en raison d'un faible nombre d'activités, telles que des ateliers et des réunions, en raison des restrictions imposées par la pandémie de COVID 19, la dévaluation de la monnaie dans certains pays et d'autres questions administratives liées aux demandes de renouvellement des projets de renforcement des institutions. Le PNUD a indiqué qu'il prévoit de présenter ces demandes de renouvellement en 2022.

PARTIE II: PROJETS APPROUVÉS DANS LE CADRE DES CONTRIBUTIONS VOLONTAIRES SUPPLÉMENTAIRES EN VUE D'UN SOUTIEN AU DÉMARRAGE RAPIDE DE LA RÉDUCTION PROGRESSIVE DES HFC

13. Au 31 décembre 2020, le Comité exécutif avait approuvé 18 projets concernant les HFC dans le cadre des contributions volontaires supplémentaires, pour un montant total de 6 051 258 \$US (hors coûts d'appui d'agence). Un récapitulatif de l'état d'avancement de ces projets est présenté dans le tableau 1.

Tableau 1. Statut des projets approuvés liés aux HFC à la fin 2020

Type	Nombre de projets			Financement (\$ US)*			
	Approuvé	Terminé	% d'achèvement	Approuvé	Décaissé	Solde	% de décaissement
Investissement**	2	1	50	4 406 610	4 150 023	256 587	94
Préparation de projets	5	5	100	124 066	83 511	40 555	67
Assistance technique – Activités de facilitation	11	4	36	1 520 582	1 309 290	211 292	86
Total	18	10	56	6 051 258	5 542 824	508 434	92

* À l'exclusion des coûts d'appui d'agence.

** 330,6 tm (432 801 tm CO₂-éq.) sur 480,6 tm (587 301 tm CO₂-éq.) de HFC avaient été éliminées.

14. À la fin 2020, sur les 18 projets approuvés, dix projets avaient été menés à terme, dont un projet d'investissement, quatre activités habilitantes et cinq activités de préparation, les huit projets restants suivant leur cours. L'ajournement de l'échéance des sept activités habilitantes en cours a été approuvé ; ces activités sont à divers stades de mise en œuvre. Pour donner suite au processus d'examen, trois projets d'activités habilitantes ont été classés comme projets présentant des retards de mise en œuvre et inclus à l'annexe I au présent document, laquelle comprend une recommandation du Secrétariat demandant la soumission d'un rapport à la 90^e réunion.

15. Conformément à la décision 82/11(b),²⁸ le PNUD a demandé une nouvelle prolongation de la durée d'un projet portant sur des activités habilitantes, comme indiqué dans le tableau 2.

Tableau 2. Projets dont la date d'échéance a fait l'objet d'une demande d'ajournement

Code de pays/code de projet	Titre du projet	Décaissement (%)	État/Questions	Date d'achèvement révisée	Date d'achèvement demandée
Uruguay URU/SEV/80/TAS/02+	Activités de facilitation de la réduction progressive des HFC	74	En raison des restrictions liées au COVID-19, retards dans l'achèvement de l'évaluation des besoins pour le renforcement des capacités douanières pour le contrôle des HFC et l'achèvement du diagnostic du cadre juridique pour la mise en œuvre de l'amendement relatif aux HFC	décembre 2021	juin 2022

²⁸ Toute demande de prolongation devra être présentée pour approbation par le Comité exécutif avant la date d'achèvement du projet, en prenant note qu'aucun nouvel engagement ne sera pris avant que la prolongation n'ait été approuvée.

16. Le projet d'investissement en cours résiduel, qui a été approuvé à la 82^e réunion, devrait être mené à terme en 2021, 80 % des fonds approuvés étant décaissés.

17. Sur le financement accumulé total approuvé de 6 051 258 \$ US, 5 542 824 \$ US ont été décaissés, ce qui représente un taux de décaissement de 92 %.

Recommandation

18. Le Comité exécutif pourrait souhaiter :

- (a) Prendre note du rapport périodique du PNUD au 31 décembre 2020 figurant dans le document UNEP/OzL.Pro/ExCom/88/14 ;
- (b) Approuver la prolongation, jusqu'au 30 juin 2022, des activités habilitantes pour la réduction progressive des HFC pour l'Uruguay (URU/SEV/80/TAS/02+), afin de permettre au PNUD d'achever le renforcement des capacités pour la surveillance des HFC et les activités liées au cadre juridique qui n'a pas pu être mené à terme avant le 31 décembre 2021 en raison des restrictions liées au COVID-19 ; et
- (c) Approuver les recommandations sur les projets en cours comportant des questions en suspens, figurant à l'annexe I au présent document.

Annexe I

PROJETS EN COURS COMPORTANT DES QUESTIONS EN SUSPENS DANS LE RAPPORT PÉRIODIQUE DU PNUD

Code de pays/code de projet	Titre du projet	Décaissement (%)	État/Questions	Recommandation
Bangladesh BGD/PHA/81/INV/51	Plan de gestion de l'élimination des HCFC (phase II, première tranche) (secteur de la climatisation)	0	18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Bangladesh BGD/PHA/81/TAS/49	Plan de gestion de l'élimination des HCFC (phase II, première tranche) (unité de gestion de projet)	0	18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Colombie COL/SEV/80/TAS/01+	Activités de facilitation de la réduction progressive des HFC	97	12 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Chine CPR/SEV/80/TAS/04+	Activités de facilitation de la réduction progressive des HFC	100	12 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
El Salvador ELS/PHA/79/TAS/36	Rapport de vérification de la phase I du plan de gestion de l'élimination des HCFC	0	12 et 18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Guyana GUY/PHA/83/INV/32	Plan de gestion de l'élimination des HCFC (phase II, deuxième tranche)	0	18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Inde (IND/PHA/77/TAS/472)	Plan de gestion de l'élimination des HCFC (phase II, première tranche) (gestion et suivi du projet)	0	12 et 18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Inde IND/PHA/82/INV/475	Plan de gestion de l'élimination des HCFC (phase II, deuxième tranche) (plan sectoriel des mousses de polyuréthane)	0	18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Inde (IND/PHA/82/TAS/477)	Plan de gestion de l'élimination des HCFC (phase II, deuxième tranche) (gestion et suivi de projet)	0	18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Jamaïque JAM/PHA/76/INV/36	Plan de gestion de l'élimination des HCFC (phase I, troisième tranche)	64	12 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Liban LEB/PHA/81/TAS/92	Plan de gestion de l'élimination des HCFC (phase II, deuxième tranche) (entretien en réfrigération et gestion et coordination du projet)	0	18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre

Code de pays/code de projet	Titre du projet	Décaissement (%)	État/Questions	Recommandation
Liban LEB/SEV/80/TAS/02+	Activités de facilitation de la réduction progressive des HFC	39	12 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Mauritanie 193MAU/PHA/80/INV/25	Plan de gestion de l'élimination des HCFC (phase I, première tranche)	0	18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Mali MLI/PHA/84/PRP/41	Préparation d'un plan de gestion de l'élimination des HCFC (phase II)	0	Situation politique entraînant des difficultés à mener à bien les activités de préparation	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Panama PAN/PHA/76/INV/44	Plan de gestion de l'élimination des HCFC (phase II, première tranche) (secteur des mousses)	11	Retard de 12 mois	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Panama PAN/SEV/81/TAS/46	Activités de facilitation de la réduction progressive des HFC	40	12 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre
Zimbabwe ZIM/REF/82/INV/55	Reconversion du HFC-134a à l'isobutane dans la production de réfrigérateurs ménagers chez Capri (SME Harare)	0	12 et 18 mois de retard	Demander au PNUD de rendre rapport à la 90 ^e réunion sur ce projet présentant un retard dans la mise en œuvre

*Les codes se terminant par « + » indiquent des ressources provenant des contributions supplémentaires.

Annexe II

ANALYSE DU RAPPORT PÉRIODIQUE DU PNUD AU 31 DÉCEMBRE 2020

1. La présente annexe se compose de deux parties :

Partie I : Projets approuvés au titre des contributions ordinaires au Fonds multilatéral

Partie II: Projets approuvés dans le cadre des contributions volontaires supplémentaires en vue d'un soutien au -démarrage rapide de la réduction progressive des HFC.

PARTIE I : PROJETS APPROUVÉS AU TITRE DES CONTRIBUTIONS ORDINAIRES AU FONDS MULTILATÉRAL

2. Au 31 décembre 2020, le Comité exécutif avait approuvé un montant de 978,98 millions de \$US, dont 861,36 millions de \$US pour la mise en œuvre de projets d'investissement et autres projets et 117,63 millions de \$US pour les frais d'agence, comme indiqué au tableau 1. En 2020, 51 nouveaux projets et nouvelles activités ont été approuvés. Ce niveau de financement devrait entraîner l'élimination de 69 033 tonnes PAO de consommation de substances réglementées et de 240 094 tonnes d'équivalent CO₂ pour les projets liés aux HFC.

Tableau 1. Financement approuvé pour le PNUD, secteur par secteur, au 31 décembre 2020

Secteur	Financement (\$US)
Aérosols	26 054 837
Destruction	3 606 279
Mousses	173 331 512
Halon	4 996 973
Fumigènes	20 081 241
Plan d'élimination	361 740 925
Agents de transformation	1 286 923
Production	1 056 000
Réfrigération	139 603 919
Secteurs multiples	65 479 103
Solvants	63 699 997
Agents désinfectants	417 628
Total partiel	861 355 337
Coûts d'appui d'agence	117 625 135
Total	978 980 472

3. Un récapitulatif de l'état des projets mis en œuvre, par catégorie, est présenté au tableau 2.

Tableau 2. État de la mise en œuvre des projets, par catégorie

Type	Nombre de projets*			Financement (\$US) **			
	Approuvé	Terminé	% d'achèvement	Approuvé	Décaissé	Solde	% de décaissement
Programme national	22	22	100	1 628 797	1 628 797	0	100
Démonstration	42	41	98	21 910 507	21 550 701	359 806	98
Renforcement des institutions	256	229	89	55 111 24 6	50 254 147	4 857 099	91
Investissement	1 311	1 243	95	709 402 352	659 814 365	49 587 987	93
Préparation de projets	540	522	97	22 409 988	21 887 077	522 911	98

Type	Nombre de projets*			Financement (\$US) **			
	Approuvé	Terminé	% d'achèvement	Approuvé	Décaissé	Solde	% de décaissement
Assistance technique	327	294	90	49 301 958	39 633 179	9 668 779	80
Formation	28	28	100	1 590 489	1 590 489	0	100
Total	2 526	2 379	94	861 355 337	796 358 755	64 996 582	92

* Exclut les projets clôturés et transférés.

** À l'exclusion des coûts d'appui d'agence.

4. Le tableau 3 présente un aperçu de l'état de la mise en œuvre du projet par année.²⁹ Tous les projets et activités approuvés entre 1991 et 2013 ont dorénavant été menés à terme.

Tableau 3. État de la mise en œuvre des projets par année

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

²⁹ Les données sont présentées en fonction de l'année d'approbation du projet par le Comité exécutif. Il traite toutes les approbations (projets d'investissement et de non-investissement) de la même manière (c'est-à-dire qu'un projet d'investissement ou une tranche de financement d'une APA d'un million de \$ US sont considérés comme un projet, de la même manière que la préparation d'un programme national de 30 000 \$ US). Les indicateurs clés de la synthèse annuelle sont les suivants : le pourcentage de projets achevés, les PAO éliminés et le pourcentage de fonds décaissés. Il existe trois types de décaissements : pendant la mise en œuvre, après la mise en œuvre et pour les projets à financement rétroactif.

Total	2 526	2 379	94	861 355 337	796 358 755	64 996 582	92
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* À l'exclusion des projets clôturés et transférés.

** À l'exclusion des coûts d'appui d'agence.

5. Le tableau 4 présente la mise en oeuvre des projets, par pays, pour 2020.

Tableau 4. Sommaire des projets mis en œuvre par le PNUD en 2020

Pays	Élimination en 2020 (tonnes PAO)*	Pourcentage de l'élimination prévue atteinte en 2020	Estimation des fonds décaissés en 2020 (\$ US)	Fonds décaissés en 2020 (\$ US)	Pourcentage des fonds décaissés par rapport aux estimations, en 2020	Pourcentage des projets prévus achevés en 2020
Angola	0,0		80 629	119 673	148	
Argentine	0,0		160 688	107 141	67	
Arménie	0,0		10 405	34 053	327	100
Bangladesh	0,0		698 777	922	0	
Barbade	0,0		1 276	0	0	
Belize	0,0		10 000	0	0	
Bhoutan	0,0		449	0	0	
Brésil	20,0		3 663 123	1 900 772	52	
Brunéi Darussalam	0,2	100	6 900	14 937	216	100
Cambodge	0,0		45 000	74 216	165	
Chili	4,0		290 692	391 151	135	
Chine	130,3	55	76 437	11 609 384	15 188	40
Colombie	26,0	14	897 760	380 370	42	50
Costa Rica	3,5		222 542	164 696	74	100
Cuba	3,2		223 459	289 759	130	50
République démocratique du Congo	0,0		17 476	0	0	0
République dominicaine	0,0		140 195	109 120	78	
Égypte	2,0	29	1 915 623	1 211 224	63	0
El Salvador	0,0		78 643	43 427	55	0
Eswatini	0,0		10 000	0	0	
Fidji	0,0		38 391	8 565	22	50
Géorgie	0,7		72 547	30 189	42	0
Ghana	5,5		143 692	170 247	118	100
Guyana	0,0		53 979	0	0	
Haïti	0,2		57 261	92 174	161	
Inde	103,8	100	5 964 270	5 834 391	98	67
Indonésie	0,0		1 284 496	515 582	40	50
République islamique d'Iran	17,2		1 101 245	684 040	62	
Jamaïque	0,0		45 407	18 211	40	0
Kirghizistan	0,5	100	31 371	11 576	37	100
Liban	6,3		249 550	420 074	168	
Malaisie	10,0		634 368	834 646	132	
Maldives	0,0		9 887	12 593	127	
Mali	0,0		19 875	0	0	
Mauritanie	0,0		31 500	0	0	
Mexico	70,1		1 352 236	631 763	47	
Mozambique	0,0		10 000	0	0	
Népal	0,0		8 179	9 000	110	
Nigéria	5,0	11	952 954	660 512	69	25
Pakistan	0,0		84 324	166 380	197	

Pays	Élimination en 2020 (tonnes PAO)*	Pourcentage de l'élimination prévue atteinte en 2020	Estimation des fonds décaissés en 2020 (\$ US)	Fonds décaissés en 2020 (\$ US)	Pourcentage des fonds décaissés par rapport aux estimations, en 2020	Pourcentage des projets prévus achevés en 2020
Panama	1,4	16	302 710	248 251	82	0
Paraguay	0,0		22 321	3 280	15	
Pérou	0,0		73 975	231 576	313	
République de Moldova	0,0		46 359	50 072	108	
Saint-Kitts-et-Nevis	0,0		40	0	0	
Sri Lanka	0,0		63 050	94 493	150	100
Timor-Leste	0,0		18 321	0	0	
Trinité-et-Tobago	7,2		135 972	141 914	104	
Uruguay	1,0	100	308 885	319 339	103	100
République bolivarienne du Venezuela	0,0		123 480	50 404	41	
Zimbabwe	0,0		118 086	8 003	7	
Total général	418,1	58	21 908 805	27 698 120	126	51

* 70,1 tm (100 243 tm CO₂-éq.) ont été éliminées en 2020 dans le cadre de projets liés aux HFC.

6. Le tableau 5 présente un résumé des projets liés aux HFC approuvés au titre des contributions régulières.

Tableau 5. Projets liés aux HFC approuvés au titre des contributions régulières

Type	Nombre de projets			Financement (\$ US)*			
	Approuvé	Terminé	% d'achèvement	Approuvé	Décaissé	Solde	% de décaissement
Investissement**	2	2	67	2 491 791	2 073 141	418 650	83
Assistance technique - Activités de facilitation	8	0	0	644 000	171 405	472 595	27
Total	11	2	18	3 135 791	2 244 546	891 245	72

* À l'exclusion des coûts d'appui d'agence.

** 142,8 tm (240 094 tm CO₂-éq.) ont été approuvés dans le cadre de projets d'investissement.

7. Il existe actuellement 11 projets liés aux HFC (dont trois projets d'investissement et huit activités habilitantes). Sur les 11 projets, deux projets d'investissement ont été achevés et neuf suivent leur cours. L'ajournement de l'échéance de huit activités habilitantes a été approuvé ; ces activités en cours sont à divers stades de mise en œuvre.

8. L'ajournement de l'échéance du projet d'investissement en cours résiduel a été approuvé à la 87^e réunion. Le projet devrait être achevé en 2022.

9. Sur un financement cumulé total approuvé de 3 135 791 \$US (à l'exclusion des coûts d'appui d'agence), 2 244 546 \$US ont été décaissés, ce qui représente un taux de décaissement de 72 %.

PARTIE II: PROJETS APPROUVES DANS LE CADRE DES CONTRIBUTIONS VOLONTAIRES SUPPLEMENTAIRES EN VUE D'UN SOUTIEN AU DEMARRAGE RAPIDE DE LA REDUCTION PROGRESSIVE DES HFC

10. Au 31 décembre 2020, le Comité exécutif avait approuvé 18 projets concernant les HFC dans le cadre des contributions volontaires supplémentaires, pour un montant total de 6 051 258 \$US (hors coûts d'appui d'agence). Un récapitulatif de l'état d'avancement de ces projets est présenté dans le tableau 6.

Tableau 6. Statut des projets approuvés liés aux HFC à la fin 2020

Type	Nombre de projets			Financement (\$ US)*			
	Approuvé	Terminé	% d'achèvement	Approuvé	Décaissé	Solde	% de décaissement
Investissement**	2	1	50	4 406 610	4 150 023	256 587	94
Préparation de projets	5	5	100	124 066	83 511	40 555	67
Assistance technique – Activités de facilitation	11	4	36	1 520 582	1 309 290	211 292	86
Total	18	10	56	6 051 258	5 542 824	508 434	92

*À l'exclusion des coûts d'appui d'agence.

** 330,6 tm (432 801 tm CO₂-éq.) sur 480,6 tm (587 301 tm CO₂-éq.) de HFC ont été éliminées.

11. À la fin 2020, sur les 18 projets approuvés, dix projets avaient été menés à terme, dont un projet d'investissement, quatre activités habilitantes et cinq activités de préparation, les huit projets restants suivant leur cours. L'ajournement de l'échéance des sept activités habilitantes en cours a été approuvé ; ces activités sont à divers stades de mise en œuvre.

12. Le projet d'investissement en cours résiduel, qui a été approuvé à la 82^e réunion, devrait être mené à terme en 2021, 80 % des fonds approuvés étant décaissés.

13. Sur le financement accumulé total approuvé de 6 051 258 \$US, 5 542 824 \$US ont été décaissés, ce qui représente un taux de décaissement de 92 %.



Empowered lives.
Resilient nations.

**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
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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	<p>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.</p> <p>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.</p>
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 started 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. Essencis 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 the 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 alternative 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 technicians 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 technicians 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
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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.