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COMITÉ EXÉCUTIF  
DU FONDS MULTILATÉRAL AUX FINS  
D'APPLICATION DU PROTOCOLE DE MONTRÉAL  
Quatre-vingt-sixième réunion  
Montréal, 2 – 6 novembre 2020  
Reportée : 8 – 12 mars 2021<sup>1</sup>

**RAPPORT PÉRIODIQUE DU PNUD AU 31 DÉCEMBRE 2019**

1. Le présent document contient le rapport périodique du PNUD au 31 décembre 2019<sup>2</sup>.

**Introduction**

2. Le rapport périodique du PNUD inclut l'état de mise en œuvre des projets, notamment 18 projets portant sur les HFC qui ont été financés dans le cadre de contributions volontaires supplémentaires allouées par 17 parties ne relevant pas de l'article 5 afin de soutenir le démarrage rapide de la mise en œuvre de l'Amendement de Kigali.

3. Le Secrétariat a examiné par pays l'état d'avancement de la mise en œuvre de chaque projet en cours, prenant en compte les retards de mise en œuvre intervenus concernant les dates d'achèvement prévues notifiées en 2019, l'impact potentiel de ces retards sur l'élimination des substances réglementées et le taux de décaissements prévus. L'analyse contenue dans le présent document s'appuie sur les quantités exprimées en tonnes PAO pour toutes les substances réglementées (y compris les HFC qui devraient être mesurés en tm éq. CO<sub>2</sub>)<sup>3</sup>.

<sup>1</sup> À cause du coronavirus (COVID-19)

<sup>2</sup> 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.

<sup>3</sup> Conformément à la décision 84/12(a)(iv), la mesure pour les HFC tm éq. CO<sub>2</sub> sera incluse dans les rapports périodiques qui seront soumis à partir de 88<sup>e</sup> réunion. Cette question est examinée dans le rapport périodique global (UNEP/OzL.Pro/ExCom/86/15).

Portée du document

4. Il comprend les parties suivantes :

- Partie I : Projets approuvés au titre des contributions ordinaires au Fonds multilatéral. Cette partie récapitule l'état d'avancement des projets pour 2019 et les progrès cumulatifs depuis 1991 tenant compte de toutes les substances réglementées en vertu du Protocole de Montréal, y compris les substances figurant à l'annexe F (HFC) ; elle examine l'état d'avancement de chaque projet en cours<sup>4</sup> au niveau des pays ; elle recense les projets présentant des retards dans la mise en œuvre et l'impact potentiel sur l'élimination des substances réglementées, ainsi que les projets comportant des questions en suspens aux fins d'examen par le Comité exécutif.
- Partie II : Projets approuvés au titre des contributions volontaires supplémentaires afin de soutenir le démarrage rapide du processus d'élimination progressive des HFC. Cette partie récapitule l'état d'avancement des projets d'élimination progressive des HFC financés dans le cadre des contributions volontaires<sup>5</sup>.

Recommandation.

5. Le présent document comprend aussi les annexes suivantes :

- Annexe I : État récapitulatif accompagné d'une recommandation pour chaque projet en cours comportant des questions en suspens qui seront examinées par le Comité exécutif.
- Annexe II : Analyse du rapport périodique.

**PARTIE I : PROJETS APPROUVÉS AU TITRE DES CONTRIBUTIONS ORDINAIRES AU FONDS MULTILATERAL.**

**Sommaire de l'état d'avancement des projets pour 2019 et des progrès cumulatifs**

6. La mise en œuvre des projets et des activités par le PNUD pour 2019 et les progrès cumulatifs depuis 1991 jusqu'au 31 décembre 2019 sont récapitulés comme suit :

- (a) **Élimination<sup>6</sup>** : En 2019, 470,9 tonnes PAO de consommation de substances réglementées ont été éliminées et 126,3 tonnes PAO supplémentaires ont été approuvées aux fins d'élimination. Depuis 1991, 67 480 tonnes PAO de consommation de substances réglementées ont été éliminées, sur un total prévu de 68 407 tonnes PAO liées aux projets approuvés (à l'exclusion des projets annulés ou transférés).

<sup>4</sup> Les projets en cours sont tous les projets qui étaient en cours de mise en œuvre au 31 décembre 2019. Les principaux indicateurs de progrès comprennent : le pourcentage de fonds décaissés et le pourcentage de projets ayant commencé à décaisser des fonds ; le financement devant être décaissé d'ici la fin de l'année en pourcentage du financement approuvé ; la durée moyenne des retards prévus dans la mise en œuvre ; et les renseignements consignés dans la colonne réservée aux remarques dans la base de données de rapport périodique.

<sup>5</sup> Conformément à la décision 84/12(b), un rapport périodique détaillé offrant un aperçu des objectifs, de l'état de la mise en œuvre, des principales conclusions, des enseignements tirés, des quantités de HFC éliminées s'il y a lieu, du niveau de financement approuvé et décaissé, et des défis potentiels pouvant survenir pour mener à bien les projets, est présenté dans le rapport périodique global (UNEP/OzL.Pro/ExCom/86/15).

<sup>6</sup> L'élimination inclut les approbations des projets d'investissement relatifs au HFC de 142,8 tm (204 332 tm éq. CO<sub>2</sub>).

- (b) **Décaissements/approbations :** En 2019, 23,14 millions \$US ont été décaissés et 15,62 millions \$US devaient l'être selon le rapport périodique de 2018, correspondant à un taux de décaissement de 148 pour cent par rapport à ce qui était prévu. Cumulativement, 768,69 millions \$US ont été décaissés sur un total de 831,9 millions \$US approuvés pour décaissement (coûts d'appui d'agence non compris), soit un taux de décaissement de 92 pour cent. En 2019, 10,39 millions \$US ont été approuvés pour la mise en œuvre de projets ;
- (c) **Coût-efficacité (en tonnes PAO)<sup>7</sup>** : Depuis 1991, le rapport coût-efficacité moyen des projets d'investissement approuvés entraînant une réduction permanente de la consommation a été de 10,65\$US/kg. Le rapport coût-efficacité moyen des projets d'investissement par tonne PAO a été de 9,38 \$US/kg pour les projets achevés et 78,78 \$US/kg pour les projets en cours<sup>8</sup> ;
- (d) **Nombre de projets achevés :** En 2019, 56 projets ont été achevés. Depuis 1991, sur les 2 475 projets approuvés, 2 345 (à l'exclusion des projets clôturés ou transférés) ont été achevés, représentant un taux d'achèvement de 95 pour cent ;
- (e) **Vitesse de réalisation – projets d'investissement :** Les projets achevés en 2019 ont été terminés en moyenne 51 mois après leur approbation. Depuis 1991, la durée moyenne de réalisation des projets d'investissement a été de 34 mois après leur approbation. Les premiers décaissements pour ces projets ont été effectués en moyenne 13 mois après leur approbation ;
- (f) **Vitesse de réalisation – projets ne portant pas sur des investissements :** Les projets achevés en 2019 ont été terminés en moyenne 38 mois après leur approbation. Depuis 1991, la durée moyenne de réalisation des projets ne portant pas sur des investissements a été de 39 mois après leur approbation. Les premiers décaissements pour ces projets ont été effectués en moyenne 13 mois après leur approbation ;
- (g) **Préparation de projet :** Sur les 539 activités de préparation de projet approuvées d'ici la fin de 2019, 518 ont été achevées, laissant 21 activités en cours. En 2019, une activité de préparation de projet a été achevée ;
- (h) **Retards dans la mise en œuvre :** En tout, 130 projets d'investissement étaient en cours de mise en œuvre à la fin de 2019, connaissant en moyenne un retard de 15 mois. Cinq d'entre eux étaient classés comme « projets ayant un retard dans la mise en œuvre »<sup>9</sup> soumis à des procédures d'annulation (les activités de préparation de projet, les accords pluriannuels et les activités de renforcement des institutions n'étant pas soumis à de telles procédures) ; et
- (i) Accords pluriannuels : En 2019, 41 accords pluriannuels pour les plans de gestion de l'élimination des HCFC (PGEH) étaient en cours de mise en œuvre. Depuis 1991, 136 accords pluriannuels ont été approuvés et 95 achevés, représentant un taux d'achèvement de 70 pour cent.

<sup>7</sup> Incluant 142,8 tm de projets d'investissement relatifs au HFC.

<sup>8</sup> La valeur plus élevée du rapport coût-efficacité pour les projets en cours est en grande partie attribuable aux valeurs plus basses des HCFC en tonnes PAO, mais également aux moyens employés par les agences pour répartir l'élimination.

<sup>9</sup> Projets approuvés depuis plus de 18 mois avec un décaissement inférieur à 1 pour cent, ou projets qui n'ont pas été achevés 12 mois après la date d'achèvement proposée dans le rapport périodique (décision 22/61) (sachant que des projets de démonstration, préparation de projet et renforcement des institutions ne sont pas soumis à ces procédures.)

## État d'avancement des projets en 2019

7. À l'issue du processus d'examen, un certain nombre de questions avaient été examinées et résolues de manière satisfaisante, à l'exception de cinq projets se rapportant à des éléments d'accords pluriannuels comportant des retards de mise en œuvre qui sont soumis aux procédures d'annulation de projet, conformément à la décision 84/45(c). Ces projets classés comme ayant des retards de mise en œuvre figurent à l'Annexe I au présent document, ainsi que la recommandation du Secrétariat demandant la présentation d'un rapport à la 87<sup>e</sup> réunion.

8. En outre, plusieurs questions ont été identifiées concernant les projets ou les tranches d'accords pluriannuels relatifs à l'élimination des HCFC. Ces questions figurent également à l'Annexe I au présent document. Une brève description de l'état d'avancement de la mise en œuvre et les questions en suspens y sont présentées pour chaque pays et une recommandation proposée aux fins d'examen par le Comité exécutif.

9. Les détails de l'avancement de la mise en œuvre des projets liés aux PGEH en Arménie<sup>10</sup>, au Brésil<sup>11</sup>, au Brunei Darussalam<sup>12</sup>, à Cuba<sup>13</sup>, en République Dominicaine<sup>14</sup>, au El Salvador<sup>15</sup>, en Eswatini<sup>16</sup>, à Fidji<sup>17</sup>, en Inde<sup>18</sup>, en République islamique d'Iran<sup>19</sup>, à la Jamaïque<sup>20</sup>, au Liban<sup>21</sup>, au Népal<sup>22</sup>, au Panama<sup>23</sup>, au Paraguay<sup>24</sup>, en République de Moldova<sup>25</sup>, au Sri Lanka<sup>26</sup>, à Trinité-et-Tobago<sup>27</sup> et en Uruguay<sup>28</sup>, et des rapports sur les projets comportant des exigences particulières de remise de rapport<sup>29</sup> en lien avec le Brésil (destruction des SAO), le Ghana (PGEH), le Mexique (PGEH) et la Chine (PGEH)<sup>30</sup> ont été soumis à la 86<sup>e</sup> réunion. Les recommandations relatives aux questions en suspens se rapportant à ces projets, y compris l'approbation des demandes de report, le cas échéant, sont traitées dans les sections correspondantes de ces documents. Les questions relatives au PGEH pour le Bangladesh, le Mali, la Mauritanie, le Nigéria et le Soudan du Sud sont abordées dans le document traitant des retards de soumission de tranches<sup>31</sup>.

10. Sur les 86 projets en cours, à l'exclusion des projets de renforcement des institutions et de préparation de projet, 29 projets présentaient des dates prévues d'achèvement révisées depuis le rapport périodique de 2018.

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<sup>10</sup> UNEP/OzL.Pro/ExCom/86/38

<sup>11</sup> UNEP/OzL.Pro/ExCom/86/41

<sup>12</sup> UNEP/OzL.Pro/ExCom/86/42

<sup>13</sup> UNEP/OzL.Pro/ExCom/86/45

<sup>14</sup> UNEP/OzL.Pro/ExCom/86/46

<sup>15</sup> UNEP/OzL.Pro/ExCom/86/48

<sup>16</sup> UNEP/OzL.Pro/ExCom/86/49

<sup>17</sup> UNEP/OzL.Pro/ExCom/86/50

<sup>18</sup> UNEP/OzL.Pro/ExCom/86/54

<sup>19</sup> UNEP/OzL.Pro/ExCom/86/55

<sup>20</sup> UNEP/OzL.Pro/ExCom/86/56

<sup>21</sup> UNEP/OzL.Pro/ExCom/86/59

<sup>22</sup> UNEP/OzL.Pro/ExCom/86/63

<sup>23</sup> UNEP/OzL.Pro/ExCom/86/68

<sup>24</sup> UNEP/OzL.Pro/ExCom/86/69

<sup>25</sup> UNEP/OzL.Pro/ExCom/86/71

<sup>26</sup> UNEP/OzL.Pro/ExCom/86/74

<sup>27</sup> UNEP/OzL.Pro/ExCom/86/77

<sup>28</sup> UNEP/OzL.Pro/ExCom/86/80

<sup>29</sup> UNEP/OzL.Pro/ExCom/86/21

<sup>30</sup> UNEP/OzL.Pro/ExCom/86/21/Add.1

<sup>31</sup> UNEP/OzL.Pro/ExCom/86/24

11. Conformément à la décision 82/11(c)(ii), le Secrétariat a noté que le renouvellement du projet de renforcement des institutions au Brésil n'avait pas été présenté au cours des deux dernières années. Le PNUD a indiqué qu'il prévoyait de soumettre la demande de renouvellement en 2021.

**PARTIE II : PROJETS APPROUVÉS AU TITRE DES CONTRIBUTIONS VOLONTAIRES SUPPLEMENTAIRES AFIN DE SOUTENIR LE DÉMARRAGE RAPIDE DU PROCESSUS D'ÉLIMINATION PROGRESSIVE DES HFC.**

12. Au 31 décembre 2019, le Comité exécutif avait approuvé 18 projets relatifs aux HFC au titre des contributions volontaires supplémentaires, pour un montant total de 6 053 676 \$US (coûts d'appui d'agence non compris). Le tableau 1 récapitule l'état d'avancement de ces projets.

**Tableau 1. État d'avancement des projets relatifs aux HFC à la fin 2019**

<b>Type</b>	<b>Nombre de projets</b>			<b>Financement (\$US)*</b>			
	<b>Approuvés</b>	<b>Achevés</b>	<b>Achevés (%)</b>	<b>Approuvé</b>	<b>Décaissé</b>	<b>Solde</b>	<b>Décaissé (%)</b>
Investissement**	2	1	50	4 406 610	4 144 828	261 782	94
Préparation de projet	5	5	100	124 066	75 911	48 155	61
Assistance technique - activités de facilitation	11	1	9	1 523 000	712 989	810 011	47
<b>Total</b>	<b>18</b>	<b>7</b>	<b>39</b>	<b>6 053 676</b>	<b>4 933 728</b>	<b>1 119 948</b>	<b>81</b>

\* Frais d'appui d'agence non compris.

\*\* 480,6 tm (587 301 tm éq. CO<sub>2</sub>) de HFC à éliminer.

13. Fin 2019, sur les 18 projets approuvés, sept projets étaient achevés, notamment un projet d'investissement, une activité de facilitation et cinq activités de préparation, ce qui laisse 11 projets en cours. Le prolongement des dates d'achèvement des 10 activités de facilitation en cours a été approuvé lors de la 83<sup>e</sup> réunion (neuf projets) et de la 84<sup>e</sup> réunion (un projet) ; ces activités se trouvent à différents stades de mise en œuvre.

14. Le projet d'investissement restant en cours, approuvé lors de la 82<sup>e</sup> réunion, dont 80 pour cent des fonds approuvés ont été décaissés, devrait être achevé en 2021.

15. Sur le total du financement approuvé cumulatif d'un montant de 6 053 676 \$US, 4 933 728 \$US ont été décaissés, représentant un taux de décaissement de 81 pour cent.

**Recommandation**

16. Le Comité exécutif pourrait envisager de :

- (a) Prendre note du rapport périodique du PNUD au 31 décembre 2019 figurant dans le document UNEP/OzL.Pro/ExCom/86/17 ; et
- (b) Approuver les recommandations relatives aux projets en cours comportant des questions spécifiques indiquées à l'Annexe I du présent document.

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

Pays/code du projet	Titre du projet	Taux de décaissement (%)	État d'avancement/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	Pas de décaissement ; retards dans l'obtention d'approbations de la part de différents départements ministériels pour la signature de l'accord en raison entre autres de la COVID-19	Demander de présenter un rapport de situation à la 87 <sup>e</sup> réunion sur le niveau de décaissement des fonds
Bangladesh BGD/PHA/81/TAS/49	Plan de gestion de l'élimination des HCFC (phase II, première tranche) (unité de gestion de projet)	0		
Colombie COL/PHA/75/INV/98	Plan de gestion de l'élimination des HCFC (phase II, première tranche) (secteur des mousses)	41	12 mois de retard	Demander au PNUD de faire le point à 87 <sup>e</sup> réunion sur ce projet ayant des retards de mise en œuvre
République démocratique du Congo DRC/PHA/79/PRP/42	Préparation du plan de gestion de d'élimination des HCFC (phase II)	0	Pas de décaissement du fait des problèmes de sécurité dans le pays et des restrictions de déplacement liées à la COVID-19, entraînant des difficultés au niveau des activités de terrain ; présentation de la phase II retardée	Demander la présentation lors de la 87 <sup>e</sup> réunion d'un rapport de situation sur l'état d'avancement de la présentation de la phase II.
Haïti HAI/PHA/76/INV/22	Plan de gestion de l'élimination des HCFC (phase I, deuxième tranche)	1	Faible décaissement ; lentes avancées de l'acquisition et de la livraison des équipements	Demander de présenter un rapport de situation à la 87 <sup>e</sup> réunion sur l'avancement de la mise en œuvre et le niveau de décaissement des fonds
Indonésie IDS/PHA/71/TAS/200	Plan de gestion de l'élimination des HCFC (gestion et coordination de projet) (phase I, deuxième tranche)	21	12 mois de retard	Demander au PNUD de faire le point à la 87 <sup>e</sup> réunion sur ce projet ayant des retards de mise en œuvre
Indonésie IDS/PHA/76/INV/208	Plan de gestion de l'élimination des HCFC (phase I, troisième tranche) (secteur de la réfrigération et de la climatisation)	27	12 mois de retard	Demander au PNUD de faire le point à la 87 <sup>e</sup> réunion sur ce projet ayant des retards de mise en œuvre
Indonésie IDS/PHA/76/INV/211	Plan de gestion de l'élimination des HCFC (phase II, première tranche) (secteur lutte contre l'incendie)	0	18 mois de retard	Demander au PNUD de faire le point à la 87 <sup>e</sup> réunion sur ce projet ayant des retards de mise en œuvre
Mauritanie MAU/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 faire le point à la 87 <sup>e</sup> réunion sur ce projet ayant des retards de mise en œuvre

## Annexe II

### ANALYSE DU RAPPORT PÉRIODIQUE DU PNUD AU 31 DÉCEMBRE 2019

1. Cette Annexe comprend les deux parties suivantes :

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

Partie II : Projets approuvés au titre des contributions volontaires supplémentaires afin de soutenir le démarrage rapide du processus d'élimination progressive des HFC.

#### **PARTIE I : PROJETS APPROUVÉS AU TITRE DES CONTRIBUTIONS ORDINAIRES AU FONDS MULTILATERAL.**

2. Au 31 décembre 2019, le Comité exécutif avait approuvé 945,34 millions \$US, soit 831,9 millions \$US pour la mise en œuvre de projets d'investissement et de projets ne portant pas sur des investissements, et 113,44 millions \$US pour les coûts d'appui d'agence, comme l'indique le tableau 1. En 2019, 41 nouveaux projets et activités ont été approuvés. Ce niveau de financement devrait permettre d'éliminer 68 407 tonnes PAO de consommation de substances réglementées.

**Tableau 1. Financement approuvé par secteur pour le PNUD au 31 décembre 2019**

Secteur	Financement (\$US)
Aérosols	26 054 837
Destruction	3 606 279
Lutte contre l'incendie	2 170
Mousse	173 331 969
Halon	4 996 973
Fumigènes	20 081 241
Multiples secteurs	0
Autres	0
Plan de l'élimination finale	333 872 234
Agent de transformation	1 286 923
Production	1 056 000
Réfrigération	139 612 399
Divers secteurs	63 877 595
Solvants	63 699 997
Agents de stérilisation	417 628
<b>Total partiel</b>	<b>831 896 245</b>
Coût d'appui d'agence	113 444 224
<b>Total</b>	<b>945 340 469</b>

3. Le tableau 2 récapitule l'état d'avancement des projets par catégorie.

**Tableau 2. État d'avancement de la mise en œuvre du projet par catégorie**

Type	Nombre de projets*			Financement (\$US)**			
	Approuvés	Achevés	Achevés (%)	Approuvé	Décaissé	Solde	Décaissé (%)
Programme de pays	22	22	100	1 628 797	1 628 797	0	100
Démonstration	42	41	98	21 910 968	21 451 655	459 313	98
Renforcement des institutions	249	226	91	53 614 738	48 248 611	5 366 127	90
Investissement	1 275	1 223	96	682 547 982	635 467 983	47 079 999	93

Type	Nombre de projets*			Financement (\$US)**			
	Approuvés	Achevés	Achevés (%)	Approuvé	Décaissé	Solde	Décaissé (%)
Préparation de projet	539	518	96	22 365 067	21 645 479	719 588	97
Assistance technique	320	287	90	48 238 204	38 660 157	9 578 047	80
Formation	28	28	100	1 590 489	1 590 489	0	100
<b>Total</b>	<b>2 475</b>	<b>2 345</b>	<b>95</b>	<b>831 896 245</b>	<b>768 693 171</b>	<b>63 203 074</b>	<b>92</b>

\*À l'exclusion des projets clos et transférés.

\*\* Frais d'appui d'agence non compris.

4. Le tableau 3 récapitule l'état d'avancement des projets par année<sup>1</sup>. Tous les projets et activités approuvés de 1991 à 2011 sont à présent achevés.

**Tableau 3. État d'avancement des projets par année**

Année	Nombre de projets*			Financement (\$US)**			
	Approuvés	Achevés	Achevés (%)	Approuvé	Décaissé	Solde	Décaissé (%)
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	13 193 670	29 116	100
2010	43	43	100	19 567 970	19 567 970	0	100
2011	63	63	100	57 446 042	57 421 734	24 308	100
2012	29	28	97	33 889 850	32 979 174	910 676	97
2013	43	42	98	34 567 186	33 721 314	845 872	98
2014	67	65	97	22 714 330	22 292 594	421 736	98
2015	75	74	99	33 523 195	29 056 699	4 466 496	87
2016	52	37	71	42 508 656	33 144 050	9 364 606	78
2017	28	16	57	30 728 346	28 749 500	1 978 846	94
2018	60	3	5	40 274 486	5 469 512	34 804 974	14
2019	41	0	0	10 391 727	35 281	10 356 446	0
<b>Total</b>	<b>2 475</b>	<b>2 345</b>	<b>95</b>	<b>831 896 245</b>	<b>768 693 171</b>	<b>63 203 074</b>	<b>92</b>

\*À l'exclusion des projets clos et transférés.

\*\* Frais d'appui d'agence non compris.

<sup>1</sup> Les données sont présentées selon l'année au cours de laquelle un projet a été approuvé par le Comité exécutif. Toutes les approbations (projets d'investissement et projets ne portant pas sur des investissements) sont traitées de la même façon (c.-à-d. qu'un projet d'investissement ou une tranche de financement d'un accord pluriannuel de 1 million \$US est considéré comme un projet, tout comme la préparation d'un programme de pays de 30 000 \$US). Les indicateurs clés de ce récapitulatif annuel sont : le pourcentage de projets achevés, les tonnes PAO éliminées et le pourcentage de fonds décaissés. Il existe trois types de décaissement : pendant la mise en œuvre, après la mise en œuvre et pour les projets financés rétroactivement.

5. Le tableau 4 présente l'état d'avancement des projets par pays pour 2019.

**Tableau 4. Récapitulatif des projets mis en œuvre par le PNUD en 2019**

Pays	Elimina-tion en 2019*	Pourcentage d'élimination prévue réalisée en 2019	Fonds estimatifs décaissés en 2019 (\$US)	Fonds décaissés en 2019 (\$US)	Pourcentage de fonds décaissés dépassant l'estimation en 2019	Pourcen-tage de projets prévus achevés en 2019
Angola	2,0		75 680	138 812	183	
Argentine	0,0		113 619	110 653	97	
Arménie	0,0		7 005	30 339	433	0
Bangladesh	0,0		475 871	187 628	39	100
Barbade	0,4		5 802	27 189	469	
Belize	0,0		5 250	0	0	
Bhoutan	0,1		3 264	15 677	480	
Brésil	92,4		2 590 760	3 934 029	152	
Brunei Darussalam	0,0		11 520	34 600	300	100
Cambodge	1,0		10 000	50 000	500	100
Chili	23,0		348 129	1 009 701	290	
Chine	5,9		1 072 665	5 100 642	476	100
Colombie	10,8	0	557 174	677 345	122	50
Costa Rica	0,0		65 985	185 239	281	
Cuba	1,0		126 041	240 312	191	0
République démocratique du Congo	0,0		3 667	0	0	0
République dominicaine	2,3		149 255	403 053	270	
Égypte	24,9	78	698 412	1 173 382	168	60
El Salvador	0,0		34 693	290	1	0
Fidji	1,0		21 809	48 374	222	
Géorgie	0,0		49 231	104 337	212	
Ghana	-5,5		75 243	147 057	195	
Guyana	0,2	100	10 242	2 705	26	100
Haïti	0,0		19 424	1 250	6	
Inde	35,0		4 578 702	3 162 037	69	100
Indonésie	0,0		847 675	371 366	44	33
Iran (République islamique d')	23,8	100	340 013	621 656	183	100
Jamaïque	0,0		24 810	28 345	114	
Koweït	0,0		68 600	0	0	0
Kirghizistan	0,0		35 035	70 429	201	
Liban	6,0		268 127	492 085	184	100
Malaisie	73,6		504 611	1 385 155	274	100
Maldives	0,0		32 933	150 540	457	100
Mali	0,0		2 821	0	0	100
Mauritanie	0,0		21 000	0	0	
Mexique	131,5		779 300	1 622 125	208	
Népal	0,1	100	5 337	15 000	281	100
Nigéria	30,0		692 859	235 227	34	
Pakistan	0,0		106 099	192 321	181	100
Panama	2,0		172 912	225 742	131	100
Paraguay	2,1		13 325	43 311	325	
Pérou	0,9		73 495	103 517	141	
République de Moldova	0,2		20 590	65 295	317	
Saint-Kitts-et-Nevis	0,1		8 000	39 942	499	
Sri Lanka	1,1	100	50 451	104 604	207	100

Pays	Elimination en 2019*	Pourcentage d'élimination prévue réalisée en 2019	Fonds estimatifs décaissés en 2019 (\$US)	Fonds décaissés en 2019 (\$US)	Pourcentage de fonds décaissés dépassant l'estimation en 2019	Pourcentage de projets prévus achevés en 2019
Timor-Leste	0,0		14 540	6 050	42	
Trinité-et-Tobago	4,0		89 436	245 546	275	
Uruguay	1,0		179 784	250 629	139	100
Venezuela (République bolivarienne du)	0,0		92 069	82 069	89	100
Zimbabwe	0,0		65 391	0	0	
Au niveau mondial	0,0		0	0		100
<b>Total</b>	<b>470,9</b>	<b>48</b>	<b>15 618 656</b>	<b>23 135 605</b>	<b>148</b>	<b>74</b>

\* 87,3 tm (125 000 tm éq. CO<sub>2</sub>) éliminés en 2019 pour des projets portant sur les HFC.

6. Le tableau 5 récapitule les projets relatifs aux HFC approuvés au titre des contributions ordinaires.

**Tableau 5. Projets relatifs aux HFC approuvés au titre des contributions ordinaires**

Type	Nombre de projets			Financement (\$US)*			
	Approuvés	Achevés	Achevés (%)	Approuvé	Décaissé	Solde	Décaissé (%)
Investissement**	3	1	33	2 491 791	1565244	926 547	63
Assistance technique - activités de facilitation	5	0	0	384 000	50 919	333 081	13
<b>Total</b>	<b>8</b>	<b>1</b>	<b>13</b>	<b>2 875 791</b>	<b>1 616 163</b>	<b>1 259 628</b>	<b>56</b>

\* Frais d'appui d'agence non compris.

\*\* 142 8 tm (204 332 tm éq. CO<sub>2</sub>) approuvés pour les projets d'investissement.

7. Il y a actuellement huit projets relatifs aux HFC (dont trois projets d'investissement et cinq activités de facilitation). Sur les huit projets, un projet d'investissement a été achevé, en laissant sept en cours. Le prolongement des dates d'achèvement de trois activités de facilitation en cours a été approuvé lors de la 84<sup>e</sup> réunion ; ces activités se trouvent à différents stades de mise en œuvre.

8. Les deux projets d'investissement restant en cours se trouvent à différents stades de mise en œuvre et devraient être achevés en 2021 et 2022.

9. Sur le total du financement cumulatif d'un montant de 2 875 791 \$US (coûts d'appui d'agence non compris), 1 616 163 \$US ont été décaissés, représentant un taux de décaissement de 56 pour cent.

## **PARTIE II : PROJETS APPROUVÉS AU TITRE DES CONTRIBUTIONS VOLONTAIRES SUPPLEMENTAIRES AFIN DE SOUTENIR LE DÉMARRAGE RAPIDE DU PROCESSUS D'ÉLIMINATION PROGRESSIVE DES HFC.**

10. Au 31 décembre 2019, le Comité exécutif avait approuvé 18 projets relatifs aux HFC au titre des contributions volontaires supplémentaires, pour un montant total de 6 053 676 \$US (coûts d'appui d'agence non compris). Le tableau 6 récapitule l'état d'avancement de ces projets.

**Tableau 6. État d'avancement des projets approuvés relatifs aux HFC à la fin de 2019**

Type	Nombre de projets			Financement (\$US)*			
	Approuvés	Achevés	Achevés (%)	Approuvé	Décaissé	Solde	Décaissé (%)
Investissement**	2	1	50	4 406 610	4 144 828	261 782	94
Préparation de projet	5	5	100	124 066	75 911	48 155	61
Assistance technique - activités de facilitation	11	1	9	1 523 000	712 989	810 011	47
<b>Total</b>	<b>18</b>	<b>7</b>	<b>39</b>	<b>6 053 676</b>	<b>4 933 728</b>	<b>1 119 948</b>	<b>81</b>

\* Frais d'appui d'agence non compris.

\*\* 480,6 tm (587 301 tm éq. CO<sub>2</sub>) des HFC à éliminer.

11. Fin 2019, sur les 18 projets approuvés, sept projets étaient achevés, notamment un projet d'investissement, une activité de facilitation et cinq activités de préparation, ce qui laisse 11 projets en cours. Le prolongement des dates d'achèvement des 10 activités de facilitation en cours a été approuvé lors de la 83<sup>e</sup> réunion (neuf projets) et de la 84<sup>e</sup> réunion (un projet) ; ces activités se trouvent à différents stades de mise en œuvre.

12. Le projet d'investissement restant en cours, approuvé lors de la 82<sup>e</sup> réunion, dont 80 pour cent des fonds approuvés ont été décaissés, devrait être achevé en 2021.

13. Sur le total du financement cumulé d'un montant de 6 053 676 \$US, 4 933 728 \$US ont été décaissés, représentant un taux de décaissement de 81 pour cent.



*Empowered lives.  
Resilient nations.*

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

**UNDP Annual Progress and  
Financial Report Narrative:  
1991-2019**

86<sup>th</sup> Meeting, 2–6 November 2020, Montreal, Canada

## I. INTRODUCTION

The following narrative is based on a database of 2,591 projects funded by the Multilateral Fund, which contains basic information on their status of implementation as of 31 December 2019. However, some updates of activities which took place during 2020 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\$ 773,626,899 of the US\$ 837,949,926 worth of projects that were approved under the Multilateral Fund since its inception in 1991. These programmes were supposed to eliminate 69,561.0 ODP T/year, of which 68,400.5 (98%) were phased out as of 31 December 2019. 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 2019, 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. There is a surge of workload for UNDP to meet the needs of so many HPMPs that are currently under implementation. This significant workload comes at a time of a key control target year (2020). 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 also 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 has received approval and implemented eight demonstration projects in seven countries. The factsheets on these projects are available at the MLF website. In addition, UNDP is also implementing demonstration projects for cost-effective alternatives to HFCs that minimize environmental impacts. Pursuant to ExCom decision 78/3(g), UNDP is preparing investment/demonstration projects to phase down HFCs and has 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. UNDP is also supporting 17 countries to undertake enabling activities for ratification and early implementation of the Kigali Amendment and two countries (Peru and Trinidad and Tobago) have completed these activities.

Furthermore, UNDP continued to organize several activities to assist countries in meeting their Montreal Protocol obligations. For example, in May 2019, UNDP organized a workshop on HFC alternatives in New York City, which provided the opportunity for participants from Article 5 countries and experts to discuss challenges, opportunities and solutions, and identify short-term priority activities and long-term strategies to effectively implement the Kigali Amendment and improve energy efficiency. The workshop brought together 60 participants from 20 countries and included experts that discussed key topics relevant to the implementation of the Kigali Amendment: including institutional arrangements, legislative and regulatory framework; baseline data collection and reporting; licensing system, customs rules and enforcement; alternative technologies; key activities in servicing sector; HFC phase down strategies; linkages with other national efforts (e.g. NDC under the Paris Agreement); and complementary actions to improve energy efficiency. The workshop materials are available [here](#).

During the 41st meeting of the Open-ended Working Group of the Parties to the Montreal Protocol UNDP and Kigali Cooling Efficiency Program (K-CEP) organized a side event “National Cooling Plans: Linking cooling to energy efficiency interventions”. The side event featured the perspectives from countries such as Trinidad & Tobago, India, and Rwanda on their experience developing the national cooling plans as a blueprint to increase energy efficiency while reducing the consumption of F-gases. These plans can provide a long-term perspective for policies that can simultaneously address national cooling demands and the need to mitigate climate change. Cooling plans cover multiple sectors, such as space cooling in buildings, manufacturing of cooling equipment, cold-chain logistics, and servicing sector.

In the margins of the 31st Meeting of the Parties to the Montreal Protocol UNDP and GIZ had jointly organized a side event “Sound ODS/HFC waste management and disposal”. This side event featured presentations on the issues of sustainable disposal of ODS/HFC containing in products, their management and experiences from demonstration projects and the panel discussion on the barriers and potential cost-effective ways of managing the ODS disposal and management. The presentation on global banks of ozone depleting substances stressed that the ODS bank were estimated to equal to 9.2 Gt CO<sub>2</sub>eq and that the annual emissions from the global ODS bank were estimated to amount to 1.5 Gt CO<sub>2</sub>eq. An overview of End of Life ODS/HFC Waste Management provided information about the current state of management, destruction technologies and experiences, and identified barriers and the ways to overcome them. The panel discussion touched upon the assessment of destruction technologies by the Montreal Protocol, experience of European Union Member States on the management of end-of-life ODS, and experience of Colombia in building the capacity to collect and destroy end-of-life ODS and implementation of the extended producer responsibility system.

Finally, 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 during the first half of 2020. For example, at the beginning of the year, UNDP organized missions to Cambodia, Cuba, the Dominican Republic, Egypt, India, Indonesia, Malaysia, Mexico and Peru. Although missions were not allowed starting in March 2020, UNDP 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. In April 2020, UNDP organized a teleconference with the Government of China and related associations and universities in the industrial and commercial refrigeration and solvent sectors to discuss the revision of the Stage II HPMP. Recognizing the importance and the need for capacity building for the implementation of the Kigali Amendment, UNDP organized several online webinars on technical topics to exchange information among Article 5 countries and provide training to the NOUs and stakeholders remotely.

## **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 2019, UNDP had a total of 2,591 approved projects under the Multilateral Fund, of which 98 had been canceled or transferred. Of the 2,493 remaining projects, 2,352, or 94% have been completed. They are set to eliminate 68,762 ODP T/year, of which 67,764 ODP T (99%) have already been eliminated.

As of 31 December 2019, UNDP had received cumulative net project approvals of US\$ 837,949,927 (excluding support costs). Of these, UNDP, as of end-2019, had disbursed US\$ 773,626,899 excluding all obligations. This translates to 92% of approved funding. Furthermore, an additional US\$ 2,675,668.8 of obligations were outstanding as of end-December 2019, representing orders placed but final payments not yet made.

### **B. Interest and Adjustments**

Interest income earned on MLF resources in 2019 is US\$ 1,802,751. Once the financial statements are submitted to the MLF Treasurer by the agreed deadline of 30 September, the difference between the provisional and final 2019 interest income can be adjusted against UNDP project approvals at the 86th 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% of the budgets were dedicated to investment projects, 6% to technical assistance projects, 6% to institutional strengthening and 3% to project preparation activities. The remaining 3% was dedicated to country programmes and demonstration/training activities.

## **III. GLOBAL AND REGIONAL PROJECT HIGHLIGHTS**

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

GLO/SEV/82/TAS/346, the Core unit support (2020) programme approved at the 84<sup>th</sup> 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 2019**

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 VIII of the

report of the 82nd meeting of the Executive Committee contained UNDP's 2019 targets. One can see from the table below that UNDP fully met 5 out of 9 of its targets and that its score amounts to 94%.

Category of performance indicator	Item	Weight	UNDP's target for 2019	Result achieved in 2019	Score
1. Approval	Number of tranches approved vs. those planned*	10	16	12 → 75% (see annex 1, 1)	7.5
2. Approval	Number of projects/activities approved vs. those planned (including project preparation activities)**	10	15	26 → 100% (see annex 1, 2)	10.0
3. Implementation	Funds disbursed	15	\$15,618,655	\$23,135,600 → 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	230	223 → 97% (see annex 1, 4)	24.2
5. Implementation	Project completion vs. planned in progress reports for all activities (excluding project preparation)	20	63	55 → 87% (see annex 1, 5)	17.4
6. Administrative	The extent to which projects are financially completed 12 months after project completion	10	70% of those due (out of 108, so target is 76)	79 finrevs (see annex 1, 7)	10.0
7. Administrative	Timely submission of project completion reports vs. those agreed	5	100% of those due	100% achieved (9 individual PCRs submitted and 7 MYA PCR submitted out of 7 planned)	5.0
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			94

\*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 2019 Business Plan, UNDP submitted two China HPMP tranches to the 83<sup>rd</sup> and 84th meetings although these tranches weren't approved. As we submitted these tranches in 2019 as we had planned, the performance target should be reduced.

#### B. Cumulative completed investment projects (Table 4)

As Table 4: Cumulative completed investment projects shows, a total of 1,224 investment projects have been completed, with a corresponding elimination of 62,518 ODP T. Of the US\$ 587,288,917 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 605 non-investment projects excluding project preparation assistance. Of the US\$ 108,877,529 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 53 ongoing investment projects in the sectors of Phase-out Plans, Foam, Aerosol, and Fumigants with corresponding budgets of US\$ 93,124,631. Of this amount, 56% has already been disbursed. It takes an average of 11 months from approval to first disbursement and an average of 45 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 67 ongoing non-investment projects excluding project preparation assistance. Of the US\$ 19,156,639 in approved budgets, 20% has been disbursed. It takes an average of 9 months from approval to first disbursement and 33 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 21 PRP projects listed with US\$ 719,643 in associated approvals, 9% 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.

Only recent projects have been included but more information on all the Stage II HCFC demonstration projects approved by the ExCom can be found on the [MLF website](#).

- **China:** demonstrating ammonia semi-hermetic frequency convertible screw refrigeration compression unit in the industrial and commercial refrigeration industry.

In order to produce the small discharge semi-hermetic frequency convertible screw refrigeration compression unit with ammonia as a viable replacement for HCFC-22 technology, the Executive Committee approved a demonstration project at its 76th meeting. Project demonstration activities ongoing in 2017. However, demonstration results will take longer than expected to be completed. As per ExCom Decision 80/26, project completion was extended to June 2018.

The demonstration project was eventually completed and passed national acceptance in May 2018. The small redesigned demonstration system with lower NH<sub>3</sub> charging amount and constructed to fit the small discharge semi-hermetic frequency convertible screw refrigeration compression unit has been built in two locations in China. The one at Xiamen Taiqu cold storage began operation in March 2017 and has been running safely for one and half year. The one at Chengdu Taiqu cold storage began operation in June 2017 and has been running safely for two years.

- **Egypt:** demonstrating low-cost options for the conversion to non-ODS technologies in polyurethane foams at very small users.

An international bidding including technical specifications of easy-to-use low-cost foam dispensing units for VSU was completed and issued. All received bids for equipment have been analyzed. The purchase order has been issued and three different dispensers purchased and placed for evaluation at the following Egyptian system houses: Tecmac Dispenser at Baalbaki, Pumer Dispenser at Dow-Middle East, Transtecnica Dispenser at Technocom. There are cost savings observed in the project which are useful in planning work with VSUs globally. Final report was submitted to the ExCom and approved in 2019.

- **Maldives:** testing HCFC-free low-global warming potential alternatives in refrigeration in fisheries sector are being tested.

Demonstration project for HCFC-free low-global warming potential alternatives in refrigeration in fisheries sector was approved at the 76th ExCom. The consulting firm was engaged in 2017. Desk study was completed to find the available alternate refrigerant with low GWP. Due to concerns with flammability, the only refrigerant applicable came in selection in the first round of study was R448A (GWP 1387) and the report was submitted to 80th ExCom. The same was discussed in ExCom and UNDP was asked to continue more research on low GWP alternatives. As per ExCom Decision 80/26, another round of desk study was conducted by the consulting team on the available alternates in the market. In the condition of non-acceptance on A2L refrigerant by the industries, three refrigerants of R450A, R513A and R448A came into the final selection round. The consulting team together with the MIFCO Engineering Team (main fisheries vessels owner) reviewed the options and selected R448A for a demo alternative. By the time an interim report was submitted to the 83rd ExCom only one vessel was retrofitted. Over the summer of 2019 retrofitting of three vessels is completed and result sharing workshops were held in August 2019. The final report was submitted and noted by the ExCom.

## 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

Conversion of refrigerators and compressors lines were completed successfully as per scheduled and safety audit took place. The completion report was submitted in April 2020 to the Secretariat of the Multilateral Fund and provided detailed information of conversion activities and costs, environment benefits including refrigerant reduction and energy saving, as well as experiences and lessons learned in the implementation. Walton has started to produce R600a based refrigerators with higher energy efficiency to the market from the beginning of 2020. Its R600a based compressor was exported to Turkey for the first time in 2020.

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

Project document signed April 2019, contract between FECO and beneficiary signed August 2019. On-site verification of the CD line conversion conducted November 2019. Hisenes-Kelon was in the process of finishing the line conversion and started trial production end 2019. Due to the impact of COVID-19, six months extension might be needed for the completion of the project.

- **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

Visit from the international expert to establish workplan and collect preliminary information on February 2019. Technical specification prepared and procurement process for the required equipment launched and completed. All the equipment has been purchased and installed successfully at the plant. International Expert made second visit to conduct the safety audit and the plant can now safely produce Commercial refrigerators with R-290. The only pending activity is the development of the final report.

- **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

The international expert has made two visits to Mexico to support the reconversion process of MABEs plant in Celaya. The final part of the installation was completed in May 2020 and the safety audit was conducted in June 2020. The plant can now safely produce domestic refrigerators with Isobutane. There is still some pending work on the field testing of certain new refrigerator models which has been delayed due to COVID19. This work will continue in the second half of 2020. The reconversion of the compressor manufacturing plant has been completed. Safety audits have been completed.

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

The project document for UNDP part was endorsed with the government. A legal agreement between France and UNDP progressed in 2019 with involvement of legal and procurement departments and signed in February 2020. Tenders for technology supply are in the process. A mission by international expert was fielded to discuss technology specifications, and factory layout schemes. Due to the impact of COVID-19, an extension was requested to the MFS.

### C. **HFC Enabling Activity projects**

As highlighted earlier in the report, UNDP is providing support to 17 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 in the countries, please see the table below.

Country	MLF Number	Project Title	Remarks
Bangladesh	BGD/SEV/81/TAS/52	Enabling activities for HFC phase-down	Ratification: The cabinet gave approval to the proposal for ratification of the Kigali Amendment to the Montreal Protocol. The approval came from the cabinet meeting chaired by Prime Minister. After ratification 1 stakeholder meeting will be organized and finalize the report. File is now under the Ministry of Foreign Affairs (MoFA).  HFC licensing & quota system: UNEP Component  HFC data collection and monitoring: Data collection survey is completed and final report expected for beginning of April.  Demonstrations: On-going
Chile	CHI/SEV/80/TAS/03+	Enabling activities for HFC phase-down	Ratification: Yes, ratified on 2017,09,19. HFC licensing & quota system: Customs has a registry of authorized importers and exporters. HFC data collection and monitoring: Yes, Chile has specific tariff codes for HFCs. Demonstrations: Yes. They conducted workshops on CO2 as alternative to HFC.
China	CPR/SEV/80/TAS/04+	Enabling activities for HFC phase-down	Ratification: MEE is working closely with line ministries of the National Leading Group for the Protection of the Ozone Layer on promoting ratification of the Kigali Amendment based on updated situation.  HFC licensing & quota system: MEE is finalizing the impact analysis of ratification of the Kigali Amendment in China based on updated situation. For the establishment of HFCs licensing and quota system, MEE and the Import/Export Office are working with the General Administration of Customs on preparation of HS code for HFCs. It is very important for customs to establish HS code for each HFCs to identify specific HFC import and export . HFC data collection and monitoring: FECO is coordinating with industrial associations including automobile association to establish HFCs data reporting system. A preliminary HFC data collection system has now been established and data collected are being analyzed. FECO will work with MEE to improve the data collection system including the HFC-23 emission reporting and the monitoring system.

Colombia	COL/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratification: Kigali Amendment approved by congress, under review of the Constitutional Court; Participation in a regional workshop in Costa Rica to discuss the implementation of the Kigali Amendment.
Costa Rica	COS/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratification: December 20, 2017 through law 9522 HFC licensing & quota system: The licensing system for HFCs is in place. The quota system has not yet been developed. HFC data collection and monitoring: The country has a good system to monitor the imports. More work is needed for the specific use of each of the substances (pure and blends) Demonstrations: Costa Rica has previously implemented a demonstration project on NH3-CO2 in Commercial Ref. This is important for the Kigali Amendment. Costa Rica organized the first international fair of Green technologies in the RAC sector.
Cuba	CUB/SEV/81/TAS/57	Enabling activities for HFC phase-down	Ratification: Kigali Amendment ratified on 2019.06.20. HFC licensing & quota system: Meetings with the Customs Authority has been conducted to review current HFC controls and tariff codes. HFC data collection and monitoring: Current tariff codes for HFC identify. Demonstrations: Workshops conducted on alternatives to HFC in conjunction with the HPMP Stage I.
El Salvador	ELS/SEV/81/TAS/37	Enabling activities for HFC phase-down	Ratification: Ratification of the Kigali Amendment is under discussion on Congress. HFC licensing & quota system: Hiring of international expert to assess current control to HFC imports. Meetings with the customs authorities have been conducted. HFC data collection and monitoring: Tariff codes for HFCs review by the international expert. Demonstrations: ToR for expert on alternative technologies were prepared and process launched.
Fiji	FIJ/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratification: is under process and at an advanced stage.  HFC licensing & quota system: Regulation for licensing is under development.  HFC data collection and monitoring: Fiji currently provides consent letters for the importation of HFC refrigerants and equipment containing HFCs and does monitoring through Customs Department. HFC data collection is in final stage. Consultants (Legal and technical) are on board. Pre-consultative workshops for the review of the ODS legislations has been conducted. A draft regulation has been submitted by the legal consultant. Meetings held by technical consultant with Stakeholders and NOU. The EA report is under development.
Haiti	HAI/SEV/84/TAS/23	Enabling activities for HFC phase-down	Ratification: Included in the workplan HFC licensing & quota system: Included in the workplan HFC data collection and monitoring: Included in the workplan Demonstrations: Included in the workplan

Iran	IRA/SEV/82/TAS/232	Enabling activities for HFC phase-down	Ratification: NOU is supporting Parliament Officials in the ratification process (meetings, clarifications, legal support and studies)  HFC licensing & quota system: UNEP Component  HFC data collection and monitoring: COVID-19 outbreak has obliged this activity to be on hold.  Demonstrations: not applicable
Jamaica	JAM/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratification: Report for Ratification finalized in 2019. Due to legal restrictions, Jamaica will ratify when licensing & quota system will be in place.  HFC licensing & quota system: Due to legal restrictions, Jamaica will ratify when licensing & quota system will be in place.  HFC data collection and monitoring: Report finalized in 2019  Demonstrations: Participation on Regional Trainings for HFC phasedown and technical training of technicians on low GWP alternatives performed.
Lebanon	LEB/SEV/80/TAS/02+	Enabling activities for HFC phase-down	Ratification: Lebanon ratified the Kigali Amendment in February 2020.  HFC licensing & quota system: The NOU is working on the inclusion of the HFCs in the quotas and licensing system  HFC data collection and monitoring: The NOU started since 2019 the collection of HFC data from importers  Demonstrations: not applicable, no demonstration project planned under the EA.
Panama	PAN/SEV/81/TAS/46	Enabling activities for HFC phase-down	Ratification: Ratified on 2018-09-28.  HFC licensing & quota system: HFC importers ask for license and quota, but it is not supported by a decree.  Meetings have been conducted with customs authorities.  HFC data collection and monitoring: NOU collects information on imports and quantities of HFC.  Demonstrations: Workshops about alternatives technologies have been conducted in conjunction with the HPMP 2.
Paraguay	PAR/SEV/81/TAS/01+	Enabling activities for HFC phase-down	Ratification: Ratified on 2018-11-01.  HFC licensing & quota system: UNEP component.  HFC data collection and monitoring: UNEP component.  Demonstrations: ToR prepared for workshops on alternatives to HFC, consultants hired. Activity postponed due COVID-19 outbreak.
Peru	PER/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratification: Peru ratified the Kigali Amendment.  HFC licensing & quota system: Performed report and guidance for new Reporting requirements. Legal instrument for licensing system under evaluation – will be approved shortly.  HFC data collection and monitoring: Customs controls for HFC management and training for Customs performed.  Demonstrations: Performed trainings on good practices for HFC management as well as low-GWP alternatives.

Trinidad and Tobago	TRI/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratification: Trinidad and Tobago ratified the Kigali Amendment. HFC licensing & quota system: Recruitment of a Legal Consultant to assist in the development of a Framework to support Licensing and Certification of Refrigeration & Air-Conditioning Technicians in Trinidad & Tobago under the Kigali Amendment (ongoing). HFC data collection and monitoring: Performed in 2019. Including costs associated to HFC phaseout, per sector, particularly those associated to the handling of alternatives Demonstrations: District cooling projects under implementation. Exchange missions and study tours on low-GWP alternatives.
Uruguay	URU/SEV/80/TAS/02+	Enabling activities for HFC phase-down	Ratification: Kigali Amendment ratified on 2018-09-12. HFC licensing & quota system: Meetings with customs have been conducted. International consultant hired to assess current system. HFC data collection and monitoring: NOU collects information on HFC imports, exports and transit through VUCE. Demonstrations: Technology workshops have been conducted in conjunction with the HPMP Stage 2 to promote natural refrigerants.

#### 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. The results will come in early 2020.

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 2019)

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.

#### **Bangladesh**

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 CO<sub>2</sub>-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 CO<sub>2</sub>-equivalent tonnes from 2020 to 2050.

#### **Brazil**

By the end of 2019, the stage I HPMP in Brazil was successfully completed and well over 200 companies in the foam sector Brazil had been reconverted to low GWP alternatives. One important achievement was the development of a flexible mechanism in the implementation that allowed clients to choose freely the System House and alternative that they wanted to adopt. The closure of the stage I HPMP was accompanied by a ban on the use of HCFC 141b in the foam sector by December 31st, 2019. The

government of Brazil has provided strong support in the reconversion of the foam sector in Brazil and has actively been promoting the safe adoption of low GWP alternatives.

### **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 CO<sub>2</sub> 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, CO<sub>2</sub>/NH<sub>3</sub>, HFOs and its blends, HFC-134a, R-410A and RHC-290. Low-GWP alternatives including CO<sub>2</sub>, NH<sub>3</sub>, 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.

### **Ghana**

Ghana is successfully proceeding to complete the successful implementation of its first stage of the HPMP. One of the striking lessons is the benefits drawn from an integrated response through several projects, both related to the HPOMP and to projects such as the Enabling Activity (conducted by UNEP), the CCAC HFC survey which now provides a solid basis for estimating the HFCs to be reported now under Article 7 by Ghana) and the KCEP projects. For example, in terms of promotion of low-GWP refrigerants alternatives, the HPMP is now promoting the testing (and more specifically the capacity

building that is required to support it) of the R290 new AC units, which is a step forward in the right direction, after the successful implementation of the R290 retrofits of HCFC AC units. The support of the KCEP programme will also complement this, by promoting the selection of the most energy efficient alternatives in addition to low-GWP refrigerants. The coordination and cooperation with the GIZ ProKlima activities (in addition to the MLF-funded programmes) ensures a comprehensive approach is taken, for example through the promotion of the ODS disposal dimension, even including ODS-containing foam from disposed refrigerators. A refrigerant technicians' formal certification system is in preparation, in close cooperation between the Ghana EPA, UNDP and GIZ. The integration of activities related to the RAC sector, from various funding sources, has been a remarkable, long-lasting success in Ghana. This will also contribute to the implementation of the National Cooling Plan, which was developed with the support of KCEP.

### **Guyana**

A 3 days seminar on Energy Efficiency and Alternative Refrigerants for the Cooling Sector in Guyana was organized by the National Ozone Unit, Hydrometeorological Service, Ministry of Agriculture, Guyana in partnership with UNDP, with support from the Government of New Zealand on December 3-5, 2019 in Georgetown, Guyana. There was participation from RAC technicians from Guyana and 13 countries in the Caribbean in the seminar. Day 1 provided a complete overview to both the Technicians as well as local policymakers about the linkages between Development (2030 Agenda/NDCs) and sustainable cooling. Days 2 and 3 were designed to offer participating Technicians the opportunity to receive exposure and technical training to state of the art low-GWP alternatives to cooling, that is: Hydrocarbons, Ammonia and CO<sub>2</sub> Systems. Moreover, an expert on EE and refrigerant fluids, was also present during the discussions.

### **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.

HCFC-141b is not produced in the country and all the domestic requirements were met through imports, nearly 50% of the consumption of ozone depleting chemicals in the country was attributable to HCFC-141b in the PU foam sector 8 (as per 2009/2010 baseline). The Ministry adopted a structured approach to engage with foam manufacturing enterprises for providing technical and financial assistance in order to transition to non-ODS and low-GWP technologies under the Stage II of the HCFCs Phase-out Management Plan (HPMP-II). Around 175 foam manufacturing enterprises are being assisted by the HPMP-II.

The polyurethane foam sector in India has links with important economic sectors related to buildings, cold storages and cold chain infrastructure, automobiles, commercial refrigeration, domestic appliances such as refrigerators, water geysers, thermoware products, office and domestic furniture applications, specific high value niche applications etc. In India, the foam manufacturing sector consists of large, medium and small enterprises having varying capacities, with preponderance of MSMEs.

In this regards, the implementation of HPMP-II focused on a mixed and complex approach through regulatory and policy actions, implementation of technology conversion projects and high level technical assistance that is ensuring minimal dislocation in the sector and for enhancing the capacities of Micro, Small, and Medium Enterprises (MSMEs) in converting to low-GWP non-ODS technologies, training and awareness programmes on non-ODS and low-GWP alternatives to HCFCs, in close collaboration with Industry and MSMEs also facilitated for adequate tie-ups with system houses and independent laboratories for getting their material tested, study tours, field visits, and exchange of experiences provided by experts from other developing countries, such as Brazil, all for stabilizing alternative technologies that have been able to move towards adoption of alternatives at commercial scale.

Noting the challenges, the Ozone Cell, MoEF&CC, entered into a Memorandum of Agreement with the Central Institute of Plastics Engineering & Technology (CIPET), of Department of Chemicals & Petrochemicals to guide foam manufacturing enterprises. As part of the assistance provided to the enterprises technology workshops, field trials, on-site demonstration and support, practical hands on training and product validation are being provided.

### **Indonesia**

Indonesia has successfully completed the implementation of the Stage I of its HPMP in 2018, and one of the key results achieved under the RAC servicing sector plan, with bilateral support from the Government of Australia and technical assistance provided by UNDP, was the launch and the piloting of its first RAC Technicians Certification Scheme. In 2019, the Government of Indonesia has successfully started the operationalization of this Certification program, by partnering with key training centers to improve the level of qualification of the technicians, while the skill-based certification scheme has certified the first 150 technicians in the maintenance of RAC systems in the country. Indonesia has phased out R22 in their domestic and commercial refrigeration and air conditioning manufacturing industries by 2020. The industries who received the support from the MLF have converted to R32 or Hydrocarbon technologies.

### **Lebanon**

The development of the efforts of the Lebanon HPMP as regards the servicing sector is to be specifically underlined in 2019. This is particularly remarkable as the political situation of the country has been particularly unstable in 2019, with many demonstrations and a slowed-down economic activity. The NPU and the PMU worked in close coordination with the Refrigeration association and international experts to determine which equipment would be needed for the first major Vocational school to be established in the capital city (previously operation with practically no training equipment, making the teaching mostly theoretical). The first RAC centre in the Vocational School in Beirut is now operational since September 2019 and was inaugurated. This was actually outreach at the regional level, with the organization of a regional West Asia thematic regional network meeting, allowing to share this experience with neighboring countries. It is worth mentioning that a technician certification system was put in place, and all students graduating from the vocational school receive certification and there will be more work needed to certify all technicians working in the local market. It still will need to be further developed to meet all requirements of certification systems as per international standards, but a key step in the right direction. Also, replication for further procurement of regional centers is ongoing, and in full coordination between the HPMP and the Enabling Activity project, particularly to ensure that energy efficiency testing equipment is also procured. This all fits into not only, obviously, the overall HPMP strategy, but also with the high-quality National Cooling Plan that was developed in 2019 (released in February 2020) with support of the KCEP.

### **Moldova**

Jointly with the Government of the Republic of Moldova, and the National Refrigeration Association, the HPMP Stage II programme has focused on the demonstration of carbon dioxide (CO<sub>2</sub>) technology in the private sector. Specifically, through a call for innovative technology proposals in the RAC sector, two (2) applicants from a retail food market and vegetable cold chain business (coldstore) were selected on a competitive basis for promotion of non-ODS and low-GWP refrigeration technology. The technology has been sourced from outside the country and then assembled with the help of two national servicing/RAC equipment assembly companies, with co-finance support from the technology recipients. Among results of the project, which are expected when the installation of the technology is complete, are better performance and energy savings, and local practical experience with assembly and servicing of the new technology in the country.

### **Peru**

By the end of 2019, Peru's Stage 2 HPMP developed activities for the installation of three Recovery and Recycling Centers. With support from an International Consultant, criteria for the definition of potential beneficiaries and technical visits to three WEEE recovery plants as possible beneficiaries for R&R centers were performed. In addition, initial equipment purchases for the R&R Centers performed. Moreover, the Government of Peru with support from UNDP, performed an open call for companies or institutions interested in implementing R&R centers present their proposals, in order to be evaluated and, if selected, be awarded with the installation of the R&R Centers.

### **Timor Leste, Maldives and Fiji**

With bilateral support from the Government of New Zealand, and implemented by UNDP, Timor Leste, Maldives and Fiji have started the implementation of demonstration activities in critical sectors (Fisheries in Maldives; Hospitality in Maldives and Cold Chain in Timor Leste) that, during 2020, will assess the supply chain, technical applicability and costs of replacement/retrofit of baseline equipment to lower GWP refrigerants. The results of these activities will support the countries to strengthen their national strategies to phase-out HCFCs and leapfrog HFCs, providing valuable information for the implementation of the Kigali Amendment to the Montreal Protocol, these LVC countries are entirely dependent on imports of RAC equipment and also are particularly vulnerable to technology available and high phase-in costs.

### **Trinidad and Tobago**

A regional workshop on the Kigali Amendment: "Challenges and Opportunities for the Caribbean Region" was organized and hosted by the UNDP and supported by the Government of New Zealand in August 2019 in Port of Spain in Trinidad. The workshop was attended by National Ozone Officers and Technicians from 11 countries in the Caribbean. The purpose provided detailed information about the Kigali Amendment and the early obligations that countries have to comply with once they have ratified the Kigali Amendment. There were intense discussions about the challenges and opportunities the Caribbean region will be facing with the entry into force of the Kigali Amendment.

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

### **A. Meetings Attended by UNDP in 2019**

<b>From</b>	<b>To</b>	<b>Location</b>	<b>Description</b>
8-Jan-19	10-Jan-19	Brazil	Policy Support and Programme Oversight
20-Jan-19	25-Jan-19	Indonesia	Policy Support and Programme Oversight
1-Feb-19	8-Feb-19	India	Policy Support and Programme Oversight

<b>From</b>	<b>To</b>	<b>Location</b>	<b>Description</b>
4-Feb-19	8-Feb-19	Cuba	Policy Support and Programme Oversight
7-Feb-19	9-Feb-19	India	Policy Support and Programme Oversight
10-Feb-19	13-Feb-19	Bangkok	Policy Support and Programme Oversight
12-Feb-19	15-Feb-19	Mexico	Policy Support and Programme Oversight
12-Feb-19	15-Feb-19	Dominican Republic	Policy Support and Programme Oversight
15-Feb-19	23-Feb-19	France	Policy Support and Programme Oversight
17-Feb-19	22-Feb-19	France	UNEP Global workshop on Kigali Amendment and Energy Efficiency.
5-Mar-19	7-Mar-19	Canada	IACM meeting
21-Mar-19	21-Mar-19	Beijing	Policy Support and Programme Oversight
25-Mar-19	28-Mar-19	Costa Rica	GIZ Green cooling initiative for LAC
7-Apr-19	13-Apr-19	China	Policy Support and Programme Oversight
11-Apr-19	12-Apr-19	Lebanon	Policy Support and Programme Oversight
15-Apr-19	18-Apr-19	Brazil	Policy Support and Programme Oversight
22-Apr-19	26-Apr-19	Mexico	Policy Support and Programme Oversight
20-May-19	25-May-19	USA	“Towards the effective implementation of the Kigali Amendment” Workshop
22-May-19	24-May-19	Nepal	Policy Support and Programme Oversight
27-May-19	31-May-19	Canada	83rd Executive Committee meeting
27-May-19	29-May-19	Sri Lanka	Policy Support and Programme Oversight
10-Jun-19	13-Jun-19	Georgia	Policy Support and Programme Oversight
17-Jun-19	21-Jun-19	Turkey	MPU Business Planning meeting
24-Jun-19	28-Jun-19	India	Policy Support and Programme Oversight
29-Jun-19	5-Jul-19	Thailand	Implementation Committee and OEWG meetings
8-Jul-19	11-Jul-19	Nigeria	Policy Support and Programme Oversight
30-Jul-19	2-Aug-19	Philippines	UNEP Ozone South East Asia Network Meeting
3-Aug-19	6-Aug-19	Maldives	Policy Support and Programme Oversight
5-Aug-19	8-Aug-19	Turkey	Policy Support and Programme Oversight
12-Aug-19	16-Aug-19	Colombia	Policy Support and Programme Oversight
14-Aug-19	16-Aug-19	Brazil	Policy Support and Programme Oversight
19-Aug-19	22-Aug-19	Trinidad and Tobago	Policy Support and Programme Oversight
26-Aug-19	28-Aug-19	Paraguay	UNEP Ozone Latin America & Caribbean Network Meeting
27-Aug-19	29-Aug-19	Haiti	Policy Support and Programme Oversight
3-Sep-19	5-Sep-19	Mexico	Policy Support and Programme Oversight
9-Sep-19	13-Sep-19	Indonesia	Policy Support and Programme Oversight
9-Sep-19	13-Sep-19	Brazil	Policy Support and Programme Oversight
16-Sep-19	18-Sep-19	Lebanon	Policy Support and Programme Oversight
16-Sep-19	19-Sep-19	Fiji	Policy Support and Programme Oversight
16-Sep-19	18-Sep-19	Dominican Republic	Policy Support and Programme Oversight
23-Sep-19	27-Sep-19	India	Policy Support and Programme Oversight
25-Sep-19	27-Sep-19	Dominican Republic	Policy Support and Programme Oversight

<b>From</b>	<b>To</b>	<b>Location</b>	<b>Description</b>
26-Sep-19	27-Sep-19	Ukraine	UNEP Ozone Europe & CIS Network Meeting
30-Sep-19	4-Oct-19	Nigeria	Policy Support and Programme Oversight
1-Oct-19	3-Oct-19	Costa Rica	Policy Support and Programme Oversight
7-Oct-19	10-Oct-10	Mexico	Policy Support and Programme Oversight
9-Oct-19	11-Oct-19	Montreal Canada	IACM meeting
14-Oct-19	17-Oct-19	Timor-Leste	Policy Support and Programme Oversight
15-Oct-19	24-Oct-19	Bangladesh	Policy Support and Programme Oversight
3-Nov-19	8-Nov-19	Rome Italy	32nd MOP meeting
20-Nov-19	21-Nov-19	Mexico	Policy Support and Programme Oversight
20-Nov-19	21-Nov-19	Mexico	Policy Support and Programme Oversight
20-Nov-19	22-Nov-19	Dominican Republic	Policy Support and Programme Oversight
26-Nov-19	29-Nov-19	Malaysia	Policy Support and Programme Oversight
27-Nov-19	29-Nov-19	El Salvador	Policy Support and Programme Oversight
3-Dec-19	5-Dec-19	Guyana	Policy Support and Programme Oversight
9-Dec-19	12-Dec-19	Cuba	Policy Support and Programme Oversight
16-Dec-19	20-Dec-19	Canada	84th meeting of the Executive Committee

B. **Other Issues.**

There were no specific issues in 2019 that need to be addressed.

## **ANNEX 1: Tables related to the Performance Indicators**

### **1. Performance Indicator 1: MYAs**

Multi-year agreements submitted in 2019 are listed in the following table.

<b>MLF Number</b>
COL/PHA/84/TAS/108
COS/PHA/83/INV/59
COS/PHA/84/INV/60
EGY/PHA/84/INV/144
GHA/PHA/84/INV/48
GUY/PHA/83/INV/32
IRA/PHA/84/INV/235
KAM/PHA/83/INV/36
MAL/PHA/84/INV/189

### **2. Performance Indicator 2: Individual Projects**

The number of individual projects approved in 2019 are listed in the following table.

<b>MLF Number</b>	
ANG/PHA/84/TAS/22	JAM/PHA/84/TAS/39
ARM/PHA/84/TAS/23	MAL/SEV/84/INS/188
BGD/SEV/83/INS/55	MLI/PHA/84/PRP/41
CHI/SEV/83/INS/198	MOL/PHA/84/PRP/40
COL/SEV/83/INS/106	MOZ/PHA/84/PRP/32
COS/SEV/84/INS/62	NIR/PHA/83/PRP/154
CUB/SEV/83/INS/62	PAN/PHA/83/PRP/49
DOM/PHA/83/PRP/68	PAN/SEV/84/INS/50
GEO/PHA/84/PRP/41	SWA/PHA/83/PRP/27
GLO/SEV/84/TAS/349	TRI/SEV/83/INS/37
HAI/SEV/84/TAS/23	URU/PHA/83/PRP/73
IDS/SEV/84/INS/215	URU/SEV/84/INS/74
IND/SEV/84/INS/478	ZIM/PHA/83/PRP/58

### **3. Performance Indicator 3: Funds disbursed**

2019 Disbursements	\$23,135,600
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### **4. Performance Indicator 4: 2019 ODS phase-out**

<b>Correct Code</b>	<b>Consumption ODP to be Phased Out per Proposal</b>
COL/PHA/84/TAS/108	4.8
COS/PHA/83/INV/59	3.5
COS/PHA/84/INV/60	0.7
COS/PHA/84/INV/61	0

EGY/PHA/84/INV/144	21.5
EGY/PHA/84/TAS/143	0
GHA/PHA/84/INV/48	15.6
GUY/PHA/83/INV/32	0.2
IRA/PHA/84/INV/235	9.9
IRA/PHA/84/INV/238	7.3
IRA/PHA/84/TAS/241	2.8
KAM/PHA/83/INV/36	1.4
MAL/PHA/84/INV/189	28.7
MAL/PHA/84/TAS/186	29.9
MAL/PHA/84/TAS/187	0

##### **5. Performance Indicator 5: Projects completed in 2019.**

The following 60 projects were completed in 2019, out of which 55 were approved under regular funding.

MLF Number	Date Completed (Actual)
ARG/SEV/76/INS/175	Dec-19
BAR/PHA/80/INV/27	Dec-19
BGD/PHA/65/INV/40	Mar-19
BGD/REF/80/INV/01+	Dec-19
BGD/SEV/77/INS/47	Jun-19
BHU/PHA/76/TAS/26	Nov-19
BRA/PHA/74/INV/307	Dec-19
BRA/PHA/75/INV/315	Dec-19
BRA/PHA/80/INV/319	Dec-19
BRA/PHA/80/TAS/318	Dec-19
BRA/SEV/75/INS/314	Sep-19
BRU/PHA/74/INV/17	Dec-19
CHI/PHA/76/INV/190	Dec-19
CHI/SEV/79/INS/194	Aug-19
COL/DES/66/DEM/82	Jun-19
COL/PHA/75/TAS/91	Dec-19
COS/PHA/80/INV/57	Dec-19
COS/REF/57/PRP/41	Dec-19
COS/SEV/80/INS/56	Dec-19
CPR/FOA/80/PRP/02+	Jun-19
CPR/PHA/71/INV/534	Dec-19
CPR/PHA/73/INV/550	Dec-19
CPR/PHA/75/INV/567	Dec-19
CUB/PHA/77/INV/56	Dec-19
CUB/SEV/75/INS/54	Dec-19
DOM/REF/81/INV/63	Dec-19
EGY/FOA/76/DEM/129	Jul-19
EGY/PHA/65/INV/113	Dec-19
EGY/PHA/68/INV/117	Dec-19

EGY/PHA/82/INV/139	Dec-19
FIJ/PHA/77/INV/31	Dec-19
GLO/SEV/82/TAS/346	Dec-19
GUY/PHA/75/INV/28	Dec-19
IDS/SEV/80/INS/212	Dec-19
IND/SEV/76/INS/467	Dec-19
IRA/PHA/77/INV/226	Dec-19
IRA/SEV/77/INS/229	Mar-19
KAM/PHA/76/INV/33	Dec-19
LEB/SEV/77/INS/89	Nov-19
MAL/PHA/77/INV/181	Dec-19
MAL/SEV/80/INS/185	Dec-19
MDV/PHA/60/INV/20	Dec-19
MDV/PHA/69/INV/24	Dec-19
MDV/REF/76/DEM/30	Dec-19
MEX/PHA/71/INV/168	Dec-19
MEX/PHA/75/INV/178	Dec-19
MLI/PHA/76/INV/38	Dec-19
MOL/PHA/77/INV/34	Dec-19
NEP/PHA/75/INV/35	Dec-19
PAK/SEV/77/INS/96	Mar-19
PAN/PHA/76/TAS/43	May-19
PAR/PHA/74/INV/34	Dec-19
PER/SEV/80/TAS/01+	Aug-19
SRL/PHA/76/INV/49	Dec-19
STK/PHA/64/TAS/16	Jun-19
TRI/PHA/75/INV/33	Apr-19
TRI/SEV/79/INS/34	Dec-19
URU/SEV/80/INS/70	Dec-19
VEN/SEV/77/INS/135	Mar-19
ZIM/REF/80/PRP/02+	Jun-19

## **7. Performance Indicator 7: Final Revisions**

Last year's database 108 projects, of which 76 should have been financially completed in 2019. This year's database counts 79 projects for which a final revision was issued in 2019.

## **8. Performance Indicator 8: PCRs**

100% achieved (10 individual PCRs submitted and 8 MYA PCR submitted out of 5 planned).

## **9. Performance Indicator 9**

Progress Report produced on 27 July 2020 as required.