



**Programa de las
Naciones Unidas
para el Medio Ambiente**

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COMITÉ EJECUTIVO DEL FONDO MULTILATERAL
PARA LA APLICACIÓN DEL
PROTOCOLO DE MONTREAL
Nonagésima primera reunión
Montreal, 5 – 9 de diciembre de 2022
Cuestión 7 a) iii) del orden del día provisional¹

**INFORME SOBRE LA MARCHA DE LAS ACTIVIDADES DEL PNUD
AL 31 DE DICIEMBRE DE 2021**

Introducción

1. El presente documento contiene el informe sobre la marcha de las actividades del PNUD al 31 de diciembre de 2021.²
2. El informe sobre la marcha de las actividades del PNUD incluye el estado de la ejecución de los proyectos, en particular de 18 proyectos relacionados con los HFC financiados con cargo a otras contribuciones voluntarias por 17 Partes que no operan al amparo del artículo 5, a fin de prestar apoyo acelerado para la aplicación de la Enmienda de Kigali.
3. La Secretaría examinó el estado de la ejecución de cada uno de los proyectos en curso por países, teniendo en cuenta las demoras en la ejecución que habían tenido lugar respecto de las fechas de terminación previstas que se habían notificado en 2021, las posibles repercusiones de esas demoras en la eliminación de las sustancias controladas y la tasa de desembolsos prevista. En el análisis que figura en el presente documento se usan toneladas PAO para todas las sustancias controladas, salvo para los HFC que se miden en toneladas métricas de equivalente de CO₂.³
4. El presente documento consta de las secciones siguientes:

¹ UNEP/OzL.Pro/ExCom/91/1

² El informe sobre la marcha de las actividades se adjunta al presente documento. Los datos se han incluido en la base de datos del informe refundido sobre la marcha de las actividades, que pueden consultarse previa solicitud.

³ De conformidad con la decisión 84/12 a) iv), la medida de los HFC en toneladas métricas de equivalente de CO₂ se incluye en los informes sobre la marcha de las actividades presentados en la 91ª reunión.

- I. Proyectos aprobados para todas las sustancias controladas en el marco de las contribuciones ordinarias al Fondo Multilateral. Esta sección contiene un resumen de los progresos realizados en materia de ejecución de los proyectos durante 2021 y de forma acumulativa desde 1991, para la eliminación de todas las sustancias controladas en virtud del Protocolo de Montreal, incluidas las sustancias (HFC) del anexo F; asimismo, contiene un análisis del estado de la ejecución de cada uno de los proyectos en curso⁴ por países y se señalan los proyectos que presentan demoras en la ejecución y sus posibles repercusiones en la eliminación de sustancias controladas, así como los proyectos con cuestiones pendientes que ha de examinar el Comité Ejecutivo.
- II. Proyectos aprobados para las sustancias (HFC) del anexo F con arreglo a otras contribuciones voluntarias para el apoyo acelerado a la reducción de los HFC.⁵
- III. Recomendación.

I. Proyectos aprobados para todas las sustancias controladas en el marco de las contribuciones ordinarias al Fondo Multilateral

I.1 Resumen de los progresos logrados en la ejecución de proyectos durante 2021 y resumen acumulativo desde 1991

5. Al 31 de diciembre de 2021, el Comité Ejecutivo había aprobado 1 004 mil millones de \$EUA en proyectos para el PNUD, consistentes en 888,61 millones de \$EUA para la ejecución de proyectos de inversión y de proyectos no relacionados con inversiones y 121,27 millones de \$EUA para gastos de apoyo al organismo, tal como se indica en el cuadro 1.

Cuadro 1. Financiación aprobada por sectores para el PNUD al 31 de diciembre de 2021

Sector	Financiación (\$EUA)
Aerosoles	26 054 837
Destrucción	3 606 279
Espumas	173 140 713
Halones	4 996 973
Plan de eliminación de HFC	3 183 000
Fumigantes	20 081 241
Plan de eliminación	378 675 934
Agentes de procesos	1 286 923
Producción	1 056 000
Refrigeración	139 598 314
Varios	67 812 809
Disolventes	63 699 997
Esterilizantes	417 628
Subtotal	883 610 648
Gastos de apoyo al organismo	121 270 538
Total	1 004 881 186

⁴ Se entiende por proyectos en curso todos aquellos proyectos en vías de ejecución al 31 de diciembre de 2020. Los principales indicadores de los progresos realizados son: el porcentaje de fondos desembolsados y el porcentaje de proyectos que han comenzado a desembolsar fondos; la financiación prevista que deberá desembolsarse al final del año, como porcentaje de la financiación aprobada; la duración media de la demora en la ejecución prevista, y la información proporcionada en la columna de observaciones en la base de datos del informe sobre la marcha de las actividades.

⁵ De conformidad con la decisión 84/12 b), en el informe refundido sobre la marcha de las actividades (UNEP/OzL.Pro/ExCom/88/12) figura un informe detallado sobre la marcha de las actividades que ofrece un panorama general de los objetivos, el estado de la ejecución, los principales resultados y enseñanzas extraídas, las cantidades de HFC eliminados, si procede, el nivel de fondos aprobados y desembolsados y las posibles dificultades para llevar a cabo proyectos y actividades (UNEP/OzL.Pro/ExCom/91/12).

6. En 2021, se aprobaron 66 nuevos proyectos y actividades. Se espera que este nivel de financiación resulte en la eliminación de 69 619 toneladas PAO y 240 094 toneladas métricas de equivalente de CO₂ de consumo de sustancias controladas. En el Anexo I se indica el estado de la ejecución de los proyectos por país durante 2021.

7. En el Cuadro 2 se presenta un resumen del estado de la ejecución de los proyectos, incluido el desembolso de la financiación por categoría de proyectos al 31 de diciembre de 2021. En el Anexo II se presenta información analítica por año desde 1991.

Cuadro 2. Estado de la ejecución de los proyectos por categoría al 31 de diciembre de 2021

Type	Número de proyectos*			Financiación (\$EUA)**			
	Aprobados	Terminados	% terminados	Aprobada	Desembolsada	Saldo	% desembolsada
Programa de país	22	22	100	1 628 797	1 628 797	0	100
Demonstración	42	41	98	21 719 011	21 599 917	119 094	99
Fortalecimiento institucional	265	241	91	57 444 952	52 351 763	5 093 189	91
Inversión	1 331	1 264	95	725 664 632	679 155 019	46 509 613	94
Preparación de proyectos	574	536	93	26 231 244	22 156 807	4 074 437	84
Asistencia técnica	329	309	94	49 331 523	42 396 630	6 934 893	86
Capacitación	28	28	100	1 590 489	1 590 489	0	100
Total	2 591	2 441	94	883 610 648	820 879 422	62 731 226	93

* Excluidos los proyectos cancelados y transferidos.

** Excluidos los gastos de apoyo al organismo.

8. A continuación, figura un resumen de la ejecución de proyectos y las actividades realizadas por el PNUD durante 2021 y un resumen acumulativo desde 1991 hasta el 31 de diciembre de 2021:

- a) **Eliminación:**⁶ En 2021, se eliminaron 923, 6 toneladas PAO de consumo de sustancias controladas y se eliminaron 15 873 de toneladas métricas equivalentes de CO₂⁷ de consumo de sustancias controladas y se aprobó la eliminación de otras 359,6 toneladas PAO de consumo de sustancias controladas. Desde 1991, se han eliminado 68 821 toneladas PAO y 240 094 toneladas métricas de equivalente de CO₂ de consumo de sustancias controladas, de un total previsto de 69 419 toneladas PAO y 240 094 toneladas métricas de equivalente de CO₂ de proyectos aprobados (con exclusión de proyectos cancelados y transferidos);
- b) **Desembolsos/aprobaciones:** En 2021, se desembolsaron 24,66 millones de \$EUA y se había previsto desembolsar 22,52 millones de \$EUA, sobre la base del informe sobre la marcha de las actividades de 2020, lo que representa una tasa de desembolso del 109 por ciento del total previsto. Del total de 883,61 millones de \$EUA aprobado para desembolso (con exclusión de los gastos de apoyo al organismo), se había desembolsado un monto acumulado de 820,88 millones de \$EUA, lo que representa una tasa de desembolso del 93%. En 2021, se aprobaron 24,65 millones de \$EUA para la ejecución;
- c) **Eficacia en función de los costos (en PAO):**⁸ Desde 1991, la eficacia media en función de los costos de los proyectos de inversión aprobados ha dado lugar a una reducción permanente en el consumo de 11,15 \$EUA/kg. La eficacia media en función de los costos de los proyectos de inversión por tonelada PAO fue de 10,05 \$EUA/kg, en el caso de los

⁶ La eliminación de SAO se expresa en toneladas PAO y de HFC en toneladas métricas de equivalente de CO₂.

⁷ De las 11,1 tm eliminadas en 2021 para los proyectos relacionados con los HFC.

⁸ Incluye 167,8 toneladas métricas de los proyectos de inversión en HFC. No se incluye la eficacia en función de los costos en equivalente de CO₂, debido al número escaso de proyectos aprobados.

proyectos terminados, y de 66,17 \$EUA/kg, para los proyectos en curso;⁹

- d) **Número de proyectos terminados:** En 2021, se terminaron 62 proyectos. Desde 1991, de los 2 591 proyectos aprobados (con exclusión de los proyectos cancelados o transferidos), se han terminado 2 441 proyectos, lo que representa el 94 por ciento del total;
- e) **Diligencia en la terminación de proyectos de facilitación de las inversiones:** Los proyectos que se terminaron en 2021 demoraron una media de 37 meses en concluir tras su aprobación. Desde 1991, el tiempo medio que demora un proyecto de inversión en realizarse ha sido de 34 meses una vez aprobado. Los primeros desembolsos para estos proyectos se han llevado a cabo 13 meses después de su aprobación;
- f) **Diligencia en la terminación de proyectos no relacionados con inversiones:** Los proyectos terminados en 2021 tardaron en promedio 33 meses en llevarse a cabo una vez aprobados. Desde 1991, el tiempo medio de terminación de los proyectos no relacionados con inversiones ha sido de 39 meses tras su aprobación. Los primeros desembolsos para estos proyectos se realizaron, en promedio, 13 meses después de ser aprobados;
- g) **Preparación de proyectos:** De las 574 actividades de preparación de proyectos aprobadas a fines de 2021, se habían terminado 536 y quedaban 38 en curso. En 2021, se habían terminado 14 actividades de preparación de proyectos
- h) **Demoras en la ejecución:** A fines de 2021, se estaban ejecutando en total 150 proyectos, con una demora media de siete meses. Veinte de dichos proyectos se han clasificado como “proyectos con demoras en la ejecución”¹⁰, los cuales están sujetos a los procedimientos de cancelación de proyectos (debido a que los proyectos de demostración, la preparación de proyectos y el fortalecimiento institucional no son objeto de esos procedimientos); y
- i) **Acuerdos plurianuales:** En 2021, se estaban ejecutando 47 acuerdos plurianuales para planes de gestión de la eliminación de los HCFC. Desde 1991, se han aprobado 156 acuerdos plurianuales, de los cuales se han terminado 109, lo que supone una tasa de terminación del 70 por ciento.

9. En el Cuadro 3 se presenta un resumen los progresos realizados por el PNUD desde 1991.

Cuadro 3: Progresos realizados por el PNUD desde 1991

Eliminación alcanzada		Desembolsos (\$EUA)	Media de la eficacia en función de los costos (\$EUA /kg)	Número de proyectos		Diligencia en la terminación (meses)		Media en la demora de proyectos (meses)	Número de proyectos plurianuales	
Ton. PAO	Tm de equiv. de CO ₂ -			Aprobado	Terminados	Inversión	No relacionados con inversiones		Aprobados	Terminados
68 821	240 094	820 879 422	11,15	2 591	2 441	34	39	7	156	109

⁹ Ese valor más alto de la eficacia en función de los costos en el caso de los proyectos en curso obedece en gran medida a los valores PAO más bajos de los HCFC y también debido a la manera en que los organismos asignan la eliminación.

¹⁰ Proyectos aprobados durante más de 18 meses con un desembolso inferior al 1 por ciento, o proyectos que no se habían terminado 12 meses después de la fecha de terminación propuesta en el informe sobre la marcha de las actividades (decisión 22/61) (ya que los proyectos de demostración, preparación de proyectos y fortalecimiento institucional no están sujetos a dichos procedimientos).

Proyectos relacionados con los HFC

10. Al 31 de diciembre de 2021, el Comité Ejecutivo había aprobado 36 proyectos relacionados con los HFC (incluidos tres proyectos de inversión, 25 proyectos de preparación y ocho actividades de apoyo) en el marco de las contribuciones ordinarias que ascienden a 6 318 767 \$EUA (con exclusión de los gastos de apoyo al organismo). En el cuadro 4 se presenta un resumen de la situación de estos proyectos y los datos respectivos ya se han incluido en los párrafos 5 a 9.

Cuadro 4. Proyectos relacionados con los HFC aprobados en el marco de las contribuciones ordinarias

Tipo	Número de proyectos			Financiación (\$EUA)*			
	Aprobados	Terminados	% terminados	Aprobada	Desembolsada	Saldo	desembolsada
Inversión**	3	2	67	2 491 767	2 159 576	332 191	87
Preparación de proyectos	25	0	0	3 183 000	0	3 183 000	0
Asistencia técnica - Actividades de apoyo	8	4	50	644 000	423 586	220 414	66
Total	36	6	17	6 318 767	2 583 162	3 735 605	41

* Excluidos los gastos de apoyo al organismo.

** Se han eliminado y aprobado 167 toneladas métricas (240 094 tm de equivalente de CO₂ para proyectos de inversión.

11. A fines de 2021, de los 36 proyectos aprobados, se habían terminado dos proyectos de inversión y cuatro actividades de apoyo, quedando 30 proyectos en curso. Asimismo, se aprobó la prórroga de las fechas de terminación de los cuatro proyectos en curso de las actividades de apoyo; esas actividades se encuentran en distintas etapas de ejecución.

12. El otro proyecto de inversión en curso, cuya prórroga de la fecha de finalización se aprobó en la 87ª reunión, está previsto que finalice en 2023.

13. Del total de la financiación acumulada aprobada de 6 318 767 \$EUA (excluyendo los gastos de apoyo al organismo), se han desembolsado 2 583 162 \$EUA, lo que representa una tasa de desembolso del 41%.

I.2 Problemas identificados en la ejecución del proyecto en 2021

14. Tras el proceso de revisión en 2021, se debatieron y abordaron satisfactoriamente varias cuestiones, excepto las relativas a 20 proyectos clasificados como proyectos con retrasos en la ejecución (incluidos 19 proyectos relacionados con componentes de acuerdos plurianuales que están sujetos a procedimientos de cancelación de proyectos, de conformidad con la decisión 84/45 c); y un proyecto de inversión en HFC). En el Anexo III del presente documento se presentan los proyectos clasificados con retrasos en la ejecución, así como las recomendaciones de la Secretaría solicitando la presentación de un informe a la 92ª reunión.

15. Además, se han identificado problemas en un proyecto de fortalecimiento institucional y en dos proyectos plurianuales. Estas cuestiones también se presentan en el Anexo III. Para cada uno de estos proyectos, se presenta una breve descripción del estado de ejecución y de las cuestiones pendientes y se propone una recomendación para su consideración por el Comité Ejecutivo.

16. Detalles de los avances en la ejecución de los proyectos asociados con los planes de gestión de la eliminación de los HCFC para China (estrategia global y plan del sector de los disolventes),¹¹ India,¹²

¹¹ UNEP/OzL.Pro/ExCom/91/38

¹² UNEP/OzL.Pro/ExCom/91/42

Nigeria (etapa III),¹³ y Sudán del Sur¹⁴ y se han presentado a la 91ª reunión los informes sobre los proyectos con requisitos de presentación de informes específicos¹⁵, en conjunción con los PGEH para Brasil, Colombia y Trinidad y Tabago, así como Uruguay. Las recomendaciones sobre las cuestiones pendientes de estos proyectos, incluida la aprobación de las solicitudes de prórroga, si las hubiera, se abordan en las secciones pertinentes de dichos documentos. Las cuestiones relativas a los planes de gestión de la eliminación de los HCFC de Guyana, Malí y Nigeria (fase II), cuyos tramos debían presentarse en la 91ª reunión, pero no lo hicieron, se abordan en el documento sobre los retrasos en la presentación de los tramos.¹⁶

17. De los 88 proyectos en curso, excluyendo el fortalecimiento institucional y la preparación de proyectos, 21 proyectos han revisado sus fechas de finalización previstas desde el informe sobre la marcha de las actividades de 2020. De acuerdo con la decisión 82/11 c) ii), la Secretaría observó que la renovación del proyecto de fortalecimiento institucional para China no se había presentado en los dos últimos años.

II. Proyectos aprobados en el marco de otras contribuciones voluntarias para el apoyo acelerado a la reducción de los HFC

18. Al 31 de diciembre de 2021, el Comité Ejecutivo había aprobado 18 proyectos relacionados con los HFC con cargo a otras contribuciones voluntarias por un valor de 6 010 703 \$EUA (con exclusión de los gastos de apoyo al organismo). En el cuadro 5 se presenta un resumen de la situación de esos proyectos.

Cuadro 5. Situación de los proyectos relacionados con los HFC aprobados desde fines de 2021

Type	Número de proyectos			Financiación (\$EUA)*			
	Aprobados	Terminados	% terminados	Aprobada	Desembolsada	Saldo	% desembolsada
Inversión**	2	2	100	4 406 610	4 402 590	4 020	100
Preparación de proyectos	5	5	100	83 511	83 511	0	100
Asistencia técnica - Actividades de apoyo	11	10	91	1 520 582	1 450 187	70 395	95
Total	18	17	94	6 010 703	5 936 288	74 415	99

* Excluidos los gastos de apoyo al organismo.

** Se aprobaron y eliminaron 480,6 tm (587 301 tm de equivalente de CO₂-eq) para proyectos de inversión.

19. A fines de 2021, de los 18 proyectos aprobados se habían terminado 17 proyectos (dos proyectos de inversión, cinco actividades de apoyo y diez actividades de preparación), quedando 1 proyecto en curso para las actividades de apoyo, cuya fecha de terminación se extendió, y se espera terminar en 2022.

20. Del total de fondos acumulados aprobados por un valor de de 6,010,703 \$EUA, se ha desembolsado 5 936 288 \$EUA, lo que representa una tasa de desembolso del 99 por ciento.

III. Recomendación

21. El Comité Ejecutivo podría considerar:

- a) Tomar nota del informe sobre la marcha de las actividades del PNUD al 31 de diciembre de 2021 que figura en el documento UNEP/OzL.Pro/ExCom/91/14; y

¹³ UNEP/OzL.Pro/ExCom/91/49

¹⁴ UNEP/OzL.Pro/ExCom/91/52

¹⁵ UNEP/OzL.Pro/ExCom/91/18

¹⁶ UNEP/OzL.Pro/ExCom/91/21

- b) Aprobar las recomendaciones relacionadas con los proyectos en curso con las cuestiones específicas que figuran en el Anexo III al presente documento.

Anexo I

**RESUMEN DE LA SITUACIÓN DE LA EJECUCIÓN DE LOS PROYECTOS DEL PNUD
POR PAÍS PARA 2021**

1. En el Cuadro 1 del Anexo I se presenta un resumen de la situación de la ejecución de los proyectos por país para 2021 en relación con la eliminación alcanzada, los desembolsos previstos y realizados y la finalización de los proyectos.

País	Eliminación en 2021 (toneladas PAO)	Eliminación en 2021 (tm equivalente de CO ₂ -)	Estimación de los fondos desembolsados en 2021 (\$EUA)	Fondos desembolsados en 2021 (\$EUA)	Porcentaje de fondos desembolsados respecto de la cifra estimada en 2021	Porcentaje de proyectos previstos terminados en 2021*
Angola	5,2		44 727	19 150	43	100
Argentina	0		105 091	119 931	114	
Armenia	0		6 921	20 622	298	100
Bangladesh	0		695 591	540 551	78	0
Belize	0		26 500	17 953	68	100
Brasil	53,6		3 093 879	938 968	30	
Brunei Darussalam	0		10 924	8 212	75	0
Camboya	0		22 735	40 000	176	
Chile	0		186 001	156 501	84	100
China	332,2		1 106 389	2 766 364	250	100
Colombia	63,4		843 183	1 721 706	204	
Costa Rica	0		126 541	155 021	123	
Cuba	0		231 234	144 689	63	100
República Democrática del Congo	2,2		17 143	2 931	17	
República Dominicana	0		299 125	206 124	69	100
Egypt	33,6		1 182 997	733 659	62	0
El Salvador	0		65 312	106 384	163	100
Eswatini	0		25 000	0	0	100
Fiji	0		48 926	54 779	112	50
Georgia	2,1		98 440	154 634	157	100
Ghana	8		133 642	208 244	156	100
Guyana	0		53 979	931	2	
Haití	0,2		29 608	73 966	250	100
India	346,6		6 607 388	11 854 587	179	100
Indonesia	10,2		1 061 531	570 044	54	0
Irán (República Islámica del)	2,8		1 467 253	783 977	53	100
Jamaica	0		86 775	66 035	76	100
Kirguistán	0		81 597	147 561	181	100
República Democrática Popular de Laos	0		32 100	0	0	
Lebanon	1,9		309 221	485 572	157	100
Malasia	9		891 540	470 118	53	100
Maldivas	0		1 070	1 528	143	
Malí	0		19 875	0	0	0

País	Eliminación en 2021 (toneladas PAO)	Eliminación en 2021 (tm equivalente de CO ₂ -)	Estimación de los fondos desembolsados en 2021 (\$EUA)	Fondos desembolsados en 2021 (\$EUA)	Porcentaje de fondos desembolsados respecto de la cifra estimada en 2021	Porcentaje de proyectos previstos terminados en 2021*
Mauritania	0		31 500	0	0	0
México	0		1 149 829	200 227	17	
Mozambique	0		10 000	0	0	0
Nepal	0		31 399	0	0	0
Nigeria	30,4		797 834	672 685	84	0
Pakistán	0		34 011	114 474	337	100
Panamá	5 7		293 709	362 214	123	100
Paraguay	0		19 478	18 177	93	100
Perú	0		80 525	52 512	65	
República de Moldova	0		36 349	40 988	113	67
Sri Lanka	5 4		165 972	74 299	45	100
Timor-Leste	0		10 500	0	0	0
Trinidad y Tabago	0		244 291	181 805	74	100
Uruguay	0		366 533	304 780	83	40
Venezuela (República Bolivariana de)	0		99 201	59 577	60	
Zimbabwe	11 1**	15 873**	140 083	3 432	2	
Total general	923 6	15 873	22 523 452	24 655 912	109	70

* Para los proyectos cuya terminación estaba prevista para 2021.

** En 2021, se eliminaron 11,1 toneladas métricas (15 873 tm de equivalente de CO₂) para proyectos relacionados con los HFC.

Anexo II

**RESUMEN DE LA SITUACIÓN DE LA EJECUCIÓN DE PROYECTOS PARA EL PNUD
POR AÑO AL 31 DE DICIEMBRE DE 2021**

1. En el Cuadro 1 del Anexo II se presenta un resumen del estado de la ejecución de proyectos por año.¹ A la fecha, se han terminado todos los proyectos y actividades aprobados entre 1991 y 2013 y que se han completado ahora en 2015.

Cuadro 1. Situación de la ejecución de proyectos por año

Año	Número de proyectos*			Financiación (\$EUA)**			
	Aprobados	Terminados	% terminados	Aprobada	Desembolsada	Saldo	% desembolsada
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	15 753 459	0	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	13 217 903	13 217 903	0	100
2010	43	43	100	19 567 970	19 567 970	0	100
2011	63	63	100	57 415 931	57 415 931	0	100
2012	29	29	100	33 889 850	33 817 257	72 593	100
2013	43	43	100	34 432 909	33 958 972	473 937	99
2014	67	66	99	22 561 208	22 442 114	119 094	99
2015	75	75	100	31 409 354	30 229 223	1 180 131	96
2016	52	49	94	41 918 720	39 804 442	2 114 278	95
2017	27	22	81	30 616 637	30 129 464	487 173	98
2018	60	44	73	40 274 462	27 837 785	12 436 677	69
2019	41	22	54	10 391 357	4 474 052	5 917 305	43
2020	51	11	22	30 206 633	14 760 078	15 446 555	49
2021	66	0	0	24 646 043	162 560	24 483 483	1
Total	2 591	2 441	94	883 610 648	820 879 422	62 731 226	93

* Excluidos los proyectos cancelados y transferidos.

** Excluidos los gastos de apoyo al organismo.

¹ Los datos se presentan según el año en que el Comité Ejecutivo aprobó el proyecto. Todas las aprobaciones (de los proyectos de inversión y proyectos no relacionados con inversiones) se tratan de la misma manera (esto es, se considera como un proyecto a un proyecto de inversión o un tramo de financiación de un acuerdo plurianual de 1 millón de \$EUA, al igual que la preparación de un programa de país por un valor de 30 000 \$EUA). Los principales indicadores del resumen anual son: el porcentaje de proyectos terminados, las toneladas PAO/toneladas métricas de equivalente de CO₂ eliminadas, y el porcentaje de fondos desembolsados. Hay tres tipos de desembolso: durante la ejecución, después de la ejecución y para los proyectos financiados con carácter retroactivo.

Anexo III

PROYECTOS EN CURSO CON CUESTIONES PENDIENTES EN EL INFORME SOBRE LA MARCHA DE LAS ACTIVIDADES DEL PNUD

País/Código del proyecto	Título del proyecto	Desembolso (%)	Estado/cuestiones	Recomendación
BGD/PHA/81/INV/51	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (sector de aire acondicionado).	20	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
BGD/PHA/81/TAS/49	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (dependencia de gestión de proyectos).	26	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
BRA/PHA/82/INV/323	Plan de gestión de la eliminación de los HCFC (etapa II, tercer tramo) (sector de espumas)	46	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
BRA/PHA/82/TAS/322	Plan de gestión de la eliminación de los HCFC (etapa II, tercer tramo) (medidas reglamentarias y supervisión del proyecto)	30	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
BRA/SEV/86/INS/324	Prórroga del proyecto de fortalecimiento institucional (fase IX: 1/2021-12/2022)	0	Demora en la firma del documento del proyecto	Solicitar al PNUD que presente un informe sobre el estado de la firma del documento de proyecto en la 92ª reunión.
CHI/PHA/81/INV/197	Plan de gestión de la eliminación de los HCFC (etapa II, segundo tramo) (sector de espumas)	73	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
COS/PHA/84/INV/60	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (sector de espuma de poliuretano).	0	Demora de 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
CPR/PHA/80/INV/587	Plan de gestión de la eliminación de los HCFC (etapa II, segundo tramo) (plan del sector de refrigeración y aire acondicionado industrial y comercial)	100	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
EGY/PHA/79/TAS/132	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (gestión y supervisión del proyecto)	13	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
EGY/PHA/84/TAS/143	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (gestión y supervisión del proyecto)	0	Demora de 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.

País/Código del proyecto	Título del proyecto	Desembolso (%)	Estado/cuestiones	Recomendación
GUY/PHA/83/INV/32	Plan de gestión de la eliminación de los HCFC (etapa II, segundo tramo)	0	Demora de 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
IDS/PHA/76/INV/211	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (sector de extinción de incendios)	0	Demora de 12 y 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
IDS/PHA/76/TAS/210	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (sector de servicio y mantenimiento de equipos de refrigeración)	54	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
IDS/PHA/81/INV/213	Plan de gestión de la eliminación de los HCFC (etapa II, segundo tramo) (sector de servicio y mantenimiento de equipos de refrigeración)	0	Demora de 12 y 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
KAM/PHA/83/INV/36	Plan de gestión de la eliminación de los HCFC (cuarto tramo)	76	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
MAL/PHA/77/TAS/183	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo) (gestión y coordinación)	16	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
MAL/PHA/84/TAS/186	Plan de gestión de la eliminación de los HCFC (etapa II, segundo tramo) (sector de servicio y mantenimiento de equipos de refrigeración)	0	Demora de 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
MAL/PHA/84/TAS/187	Plan de gestión de la eliminación de los HCFC (etapa II, segundo tramo) (gestión y coordinación)	0	Demora de 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
NEP/PHA/86/INV/41	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo)	0	Le ejecución del proyecto se ha visto afectada debido a los cambios efectuados en los procedimientos administrativos en el Gobierno	Solicitar al PNUD que presente a la 92ª reunión un informe sobre los progresos realizados en la ejecución

País/Código del proyecto	Título del proyecto	Desembolso (%)	Estado/cuestiones	Recomendación
NEP/PHA/86/INV/44	Plan de gestión de la eliminación de los HCFC (etapa I, tercer tramo)	0	Le ejecución del proyecto se ha visto afectada debido a los cambios efectuados en los procedimientos administrativos en el Gobierno	Solicitar al PNUD que presente a la 92ª reunión un informe sobre los progresos realizados en la ejecución
TLS/PHA/80/INV/15	Plan de gestión de la eliminación de los HCFC (etapa II, primer tramo)	36	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
URU/PHA/85/INV/75	Plan de gestión de la eliminación de los HCFC (etapa II, segundo tramo) (servicio y mantenimiento de equipos de refrigeración y gestión y coordinación del proyecto).	51	Demora de 12 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.
ZIM/REF/82/INV/55	Conversión de HFC-134a a isobutano en la fabricación de frigoríficos nacionales en Capri (PYMES, Harare)	0	Demora de 18 meses	Solicitar al PNUD la presentación de un informe a la 92ª reunión sobre este proyecto con demoras en la ejecución.



Empowered lives.
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**Executive Committee of the Multilateral Fund
for the Implementation of the Montreal Protocol**

UNDP Annual Progress and Financial Report Narrative: 1991-2021

91st Meeting, 28 November –2 December 2022, Montreal,
Canada

I. INTRODUCTION

The following narrative is based on a database of 2708 projects funded by the Multilateral Fund, which contains basic information on their status of implementation as of 31 December 2021. However, some updates of activities which took place during 2022 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\$ 826,815,710 of the US\$ 889,621,357 worth of projects that were approved under the Multilateral Fund since its inception in 1991. These programmes were supposed to eliminate 70,573 ODP T/year, of which 69,339 (98%) were phased out as of 31 December 2021. 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 2021, UNDP was active in 49 countries, of which 23 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. In addition, UNDP also acts as the cooperating agency in 18 countries.

Furthermore, in 2021, the COVID-19 pandemic continued to pose limitations on project implementation. Despite this challenging situation, UNDP, with its network of country offices, remains fully committed to meet the increased workload and ensure that countries receive the assistance needed to be in compliance with all requirements of the Montreal Protocol.

UNDP has been at the forefront of technical assessments and demonstration projects for potentially cost-effective alternatives to HCFCs that minimize environmental impacts, particularly for those specific applications where such alternatives are not presently available and applicable. Pursuant to ExCom decision 72/40, UNDP has prepared a number of projects to demonstrate climate-friendly and energy-efficient alternative technologies to HCFCs, and feasibility studies on district cooling. UNDP received approval and implemented eight demonstration projects to replace HCFCs with low-GWP alternatives in seven countries. The technologies deployed in the HCFC demonstration projects are relevant to the HFC phase-down in the Kigali Amendment. The factsheets on these projects are available at the MLF website.

Pursuant to ExCom decision 78/3(g), UNDP prepared investment/demonstration projects to phase down HFCs and received approval for five HFC technology demonstration investment projects in Bangladesh, China, Dominican Republic, Mexico and Zimbabwe. The technology demonstration project in Bangladesh has been completed and submitted to the Executive Committee in 2020, making it the first HFC investment project of the MLF to have been finalized, thereby providing invaluable information to the Executive Committee for the requirements of the upcoming HFC phasedown. The HFC technology demonstration activities in China, Dominican Republic and Mexico have also been completed by the end of 2021. UNDP is also supporting 19 countries to undertake enabling activities for ratification and early implementation of the Kigali Amendment and the majority of the countries (China, Colombia, Costa Rica, Cuba, El Salvador, Fiji, Haiti, Jamaica, Lebanon, Panama, Paraguay, Peru, Trinidad & Tobago, Uruguay) have completed these activities.

While the COVID-19 pandemic continued to impose limitations on project implementation, Article 5 countries and UNDP have been able to adapt some of our operations in order to ensure the continuation of the implementation of activities under the Multilateral Fund in 2021. Although missions have been restricted since March 2020, UNDP has continued to implement the projects through our country offices, staying in communication with NOUs and providing support remotely (through online meetings) on preparation of annual work plans, review of project-related documents, procurement, clarification of policy and technical issues, submission of tranche requests, drafting of project completion reports, and financial disbursement issues.

In view of the time-consuming process for the procurement of tools for the servicing sector, UNDP Montreal Protocol team worked together with the procurement center of UNDP in Copenhagen to establish long term agreements with qualified suppliers through an international competitive process. In 2021, this new approach of accelerating the procurement process specially for the projects in low-volume countries was implemented in a number of countries in the Latin American and Caribbean and Africa regions.

Furthermore, UNDP continued to organize virtual and online-based activities to assist countries in meeting their Montreal Protocol obligations. In 2021, the UNDP Montreal Protocol team organized almost 20 webinars aimed at strengthening the capacity of NOUs from Latin America and the Caribbean and the Asia Pacific on the implementation of the Montreal Protocol and the Kigali Amendment. The webinars were organized to cover topics such as the requirements for the licensing and quota systems for HFCs to implement the Kigali Amendment, addressing the challenges of new technologies and energy efficiency in the RAC Sector, and delivering energy efficient and climate friendly cooling through National Cooling Action Plans (NCAPs) (please see Annex 1 for a full list of the webinars offered in 2021). With financial support from the US EPA and in cooperation with the National Ozone Unit of Colombia, UNDP organized a webinar series titled “Closing the loop: environmentally sound management of end-of-life ODS and HFC”. These webinars were organized in June 2021 and delivered the following thematic sessions: (1) Contextual introduction, and sustainable regulatory and institutional framework; (2) Development of required infrastructure; and (3) Sustainable financing mechanisms. All the materials of the webinar series are available [online](#).

Finally, in order to strengthen the application of the MLF’s new [Operational Policy on Gender Mainstreaming](#) for UNDP’s Montreal Protocol portfolio, two webinars on gender and the Montreal Protocol were organized by UNDP in 2021. The objective of these webinars was to improve the mainstreaming of gender into UNDP’s Montreal Protocol projects and promoting the application of a gender responsive approach to activities under the Montreal Protocol.

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 2021, UNDP had a total of 2708 approved projects under the Multilateral Fund, of 88 which had been canceled or transferred. Of the 2,608 remaining projects, 2,458, or 94% have been completed. They are set to eliminate 70,573 ODP T/year, of which 69,339 ODP T (98%) have already been eliminated.

As of 31 December 2021, UNDP had received cumulative net project approvals of US\$

889,621,357 (excluding support costs). Of these, UNDP, as of end-2021, had disbursed US\$ 826,815,710 excluding all obligations. This translates to 93% of approved funding. Furthermore, an additional US\$ 2,859,546 of obligations were outstanding as of end-December 2021, representing orders placed but final payments not yet made.

B. Interest and Adjustments

Interest income earned on MLF resources in 2021 is US\$ 474,645. Once the financial statements are submitted to the MLF Treasurer by the agreed deadline of 30 September, the difference between the provisional and final 2021 interest income can be adjusted against UNDP project approvals at the 91st ExCom meeting. The estimated interest for 2021 of \$500,000 exceeds actual interest of \$474,645. Therefore a refund of \$25,355 will be due to UNDP.

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, 82.4% of the budgets were dedicated to investment projects, 5.5% to technical assistance projects, 9.2 % to institutional strengthening and to project preparation activities. The remaining 8.2% was dedicated to country programmes and demonstration/training activities.

III. GLOBAL AND REGIONAL PROJECT HIGHLIGHTS

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

GLO/SEV/88/TAS/360, the Core unit support (2022) programme approved at the 88th 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 programme is critical.

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

IV. PERFORMANCE INDICATORS

A. Results in 2021

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 XI of the report of the 86th meeting of the Executive Committee contained UNDP's 2021 targets. One can see from the table below that UNDP fully met 4 out of 9 of its targets and that its score amounts to 95%.

Category of performance indicator	Item	Weight	UNDP's target for 2021	Result achieved in 2021	Score
1. Approval	Number of tranches approved vs. those planned*	10	24	19 → 79%	7.9
2. Approval	Number of projects/activities approved vs. those planned (including project preparation activities)**	10	49	45 → 92%	9.2
3. Implementation	Funds disbursed	15	\$ 22,419,984	\$24,520,699 → 100% (see annex 1, 3)	15.0
4. Implementation	ODS phase-out for the tranche when the next tranche	25	368.27	348.1 → 95%	23.6

Category of performance indicator	Item	Weight	UNDP's target for 2021	Result achieved in 2021	Score
	is approved vs. those planned per business plans			(see annex 1, 4)	
5. Implementation	Project completion vs. planned in progress reports for all activities (excluding project preparation)	20	49	48 → 98% (see annex 1, 5)	19.6
6. Administrative	The extent to which projects are financially completed 12 months after project completion	10	70% of those due (out of 62, so target is 43)	44 finrevs	10.0
7. Administrative	Timely submission of project completion reports vs. those agreed	5	100% of those due (3)	100% achieved (3 individual PCRs)	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			95

*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:

For Barbados, St. Kitts and Nevis and Haiti, UNDP has completed all its tasks for Stage I. The delay is on the lead agency's side. For Guyana, we are waiting for the cooperating agency to finalize the implementation of tranche 2. We are ready for the request of tranche 3.

As UNDP's tranches were ready in 2021 as we had planned for these four countries, our performance target for MYAs should be reduced from 28 to 24 and the performance indicator for ODS phase-out should be adjusted accordingly.

B. Cumulative completed investment projects (Table 4)

As Table 4: Cumulative completed investment projects shows, a total of 1,266 investment projects have been completed, with a corresponding elimination of 63,029 ODP T. Of the US\$ 639,702,004 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 \$10.15 /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 651 non-investment projects excluding project preparation assistance. Of the US\$ 116,927,414 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 67 ongoing investment projects in the sectors of Phase-out Plans and Foam, with corresponding budgets of US\$ 83,834,464. Of this amount, 50% has already been disbursed. It takes an average of 9 months from approval to first disbursement and an average of 42 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 46 ongoing non-investment projects excluding project preparation assistance. Of the US\$ 15,835,912 in approved budgets, 32% has been disbursed. It takes an average of 12 months from approval to first disbursement and 39 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. For new projects, the UNDP country office will engage with the implementation partner in the country to sign the Project Document which details the topic, objective, activities and implementation modality of the project. There were no specific issues related to this in 2021.

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 37 PRP projects listed with US\$ 3,835,500 in associated approvals, 1% has been disbursed.

VI. DESCRIPTION OF KEY ONGOING ACTIVITIES

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

- A. Standalone investment projects for HFCs
- B. HFC Enabling Activity projects
- C. Kigali Implementation Plan (KIP) Preparation
- D. Country Highlights

A. **HFC investment projects**

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

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

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

UNDP supported the project's 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 Bangladesh. In terms of accumulated direct emissions, following the IPCC Methodology, the conversion from HFC-134a to HC-600a at Walton will avoid the direct emission of 7,978,873 tons of CO₂-equivalent of HFC-134a from 2020 to 2050.

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

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

The 82nd Executive Committee approved the project proposal for the conversion from HFC-245fa and cyclopentane to HFO-1233zd(E) and cyclopentane in the manufacture of domestic refrigerators at Hisense Kelon in the amount of US \$1,275,000 in response to the Decision 79/45, aiming to gather information related to incremental costs that could support the discussion on the cost guidelines for the HFCs Phase-down. The Project was completed in June 2021 and eliminated 250mt of HFC-245fa consumption through the conversion of a production line, by replacing the use of C5+HFC-245fa with C5+HFO1233zd as foaming co-blowing agent. In addition, in view of the high operational cost of cyclopentane + HFO-1233zd system, Hisense invested their own resources to carry out further research on low-density systems. As a result, ultra-low density three-component blowing agent composed by cyclopentane+HFO-1233zd+butane system is being developed, which can reduce the foam density the amount of raw materials by 5-8% without compromising the performance.

With the successful adoption of co-blowing cyclopentane and HFO-1233zd, 259,195 tons of CO₂-eq of HFC-245fa in the annual production were reduced. The energy consumption of the refrigerator after the conversion also decreased by 2.12%. It is estimated that 1.2 million units could avoid indirect emissions of 5,847.3 tons CO₂ per year.

The project reached its objective and provided detailed information on the alternative technology and related costs.

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

The project of FARCO in the Dominican Republic was approved in 2018 and completed in 2020. The completion report was submitted to the MLF in 2021. FARCO now has the capacity to produce all of its self-contained commercial refrigeration units with R-290. The consumption of HFCs in FARCO is small, however, it is an important project for the country to meet its obligations for the Kigali Amendment and reduce the production and servicing demands of HFCs. The total cost of the project was USD\$ 662,986 (USD\$ 129,825 from the Multilateral Fund, USD\$ 50,000 from the government of Canada and USD\$ 483,161 from FARCO). With the conversion, 3.95 mt of HFC-134a and R-404A were phased out. The

project also supports the training of technicians for the safe handling of flammable refrigerants. This is an important achievement not only for the Dominican Republic but also for other islands in the Caribbean where FARCO sells their units.

- **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 project was approved at the 81st meeting of the ExCom in June 2018 with USD 2,700,000, and was operationally completed in June 2020. Mabe has six manufacturing lines producing domestic refrigerators using HFC-134a. All lines have been fully converted and can use R600a safely. Safety audit was completed at both the compressor and refrigerator manufacturing plant. Additional 500,000 USD was provided by the Government of Canada and 250,000 USD by K-CEP to support the conversion and improvement of energy efficiency. The project phased out 198 MT of HFC 134a, which is equivalent to 283,140 MT of CO₂. MABE provided significant co-financing in the conversion. The completion report with all detailed information was submitted by UNDP to the MLF Secretariat in 2021.

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

The HFC demonstration project for Zimbabwe on “Conversion from HFC-134a to isobutane in the manufacture of domestic refrigerators at Capri (SME Harare)” was approved by the Executive Committee at its 82nd meeting for UNDP and bilateral partner of France. Due to the small levels of consumption, Capri needs to find co-financing for the conversion in addition to the grant provided by the MLF. During 2021, UNDP supported Capri in realizing the earlier committed co-finance resources, including from the company’s sources and national development funds. US\$ 200,000 of additional support has been identified already. With these confirmed co-finance resources, Capri and NOU-Zimbabwe are now in a position to complete works on the technology specifications and proceed with tendering processes in the remaining time of 2022. The project may require a slight extension to allow for completion of technology transition process in 2023.

B. HFC Enabling Activity projects

As highlighted earlier in the report, UNDP is providing support to 19 countries to undertake their HFC enabling activities (EAs) for ratifying and early implementation of the Kigali Amendment. 12 EA projects have been completed by the end of 2021. For more details on the status of these activities, please see the table below.

Country	MLF Number	Project Title	Ratification Status	Latest Status
Bangladesh	BGD/SEV/81/TAS/52	Enabling activities for HFC phase-down	Ratified Kigali on 8 June 2020.	Final consultation was held in May on the assessment reports. Final Report will be prepared in Q3 and Q4.
Belize	BZE/SEV/85/TAS/37	Enabling activities for HFC phase-down	Country has not ratified Kigali yet.	HFC Enabling Activities finalized. Train the Trainers by International Consultant Performed in 2022
Chile	CHI/SEV/80/TAS/03+	Enabling activities for HFC phase-down	Ratified Kigali on 19 Sept	NOU and customs held meetings to discuss HFC

			2017.	control system. Awareness activities on the Kigali Amendment carried out.
China	CPR/SEV/80/TAS/04+	Enabling activities for HFC phase-down	Ratified Kigali Amendment in June 2021.	The amended Regulation on the Administration of ODS has been approved in principle at the ministerial executive meeting of MEE in May 2021. Substantial progress has been made for the preparation of HS code with codes designated for 18 HFCs and 4 blends. The project has been completed.
Colombia	COL/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 25 Feb 2021.	An evaluation was conducted to the terms of reference for the environmental licenses for HFC imports and export.
Costa Rica	COS/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 23 May 2018.	Final report being prepared by the NOU in Costa Rica
Cuba	CUB/SEV/81/TAS/57	Enabling activities for HFC phase-down	Ratified Kigali on 20 June 2019.	Legal framework assessment to foster control of HFC was completed. Awareness raising material was produced.
El Salvador	ELS/SEV/81/TAS/37	Enabling activities for HFC phase-down	Country has ratified Kigali on 13 September 2021.	Awareness raising material produced.
Fiji	FIJ/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 16 June 2020.	Stakeholders Validation Workshop was held in February 2021. EA report is under preparation
Haiti	HAI/SEV/84/TAS/23	Enabling activities for HFC phase-down	Country has not ratified Kigali yet.	Results from the survey in process of being analyzed. Stakeholder consultations for Policy Components related to the ratification of the Kigali Amendment in progress
Iran	IRA/SEV/82/TAS/232	Enabling activities for HFC phase-down	Country has not ratified Kigali yet.	Government continued the final validation and endorsement process of Sector use and Consumption Reports.
Jamaica	JAM/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Country has not ratified Kigali yet.	Strengthening of Tariff codes for HFCs performed. Virtual training and awareness in progress

Lebanon	LEB/SEV/80/TAS/02+	Enabling activities for HFC phase-down	Ratified Kigali Amendment on 5 Feb 2020.	<p>The draft decree for the amendment of the ODS licensing system to include HFCs is completed and submitted for Cabinet approval.</p> <p>Awareness raising of stakeholders on HFCs phase-down and energy efficiency improvement options conducted.</p> <p>Harmonized Customs Codes assessed in line with the new series of pure and blended HFCs for future action.</p> <p>Implementation of the new HFCs data reporting system has progressed.</p>
Moldova	MOL/SEV/85/TAS/41	Enabling activities for HFC phase-down	Country has not ratified Kigali yet.	The final report containing proposal of revision of the National Commodity Description and Coding System, and the related package was presented in February 2022.
Panama	PAN/SEV/81/TAS/46	Enabling activities for HFC phase-down	Ratified Kigali on 28 Sept 2018.	Awareness material prepared and produced. Assessment of training institutions was completed. National Roadmap to phase down HFC is being prepared.
Paraguay	PAR/SEV/81/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 1 Nov 2018.	Virtual meetings conducted with stakeholders to increase knowledge of the Kigali Amendment.
Peru	PER/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 7 Aug 2019.	Activities completed.
Trinidad and Tobago	TRI/SEV/80/TAS/01+	Enabling activities for HFC phase-down	Ratified Kigali on 17 Nov 2017.	Development of Cost analysis of HFC phasedown per sector performed.
Uruguay	URU/SEV/80/TAS/02+	Enabling activities for HFC phase-down	Ratified Kigali on 12 Sept 2018.	Virtual meetings conducted with stakeholders to increase knowledge of the Kigali Amendment.

C. KIP Preparation

As of mid-2022, UNDP has received approval from the Multilateral Fund to provide support to 28

countries to prepare their Kigali Implementation Plans as the lead or cooperating agency. For more details on these countries, please see the table below.

Country	MLF Number	Project Title
Angola	ANG/KIP/88/PRP/24	Preparation of Kigali HFC implementation plan
Bangladesh	BGD/KIP/90/PRP/58	Preparation of Kigali HFC implementation plan
Bhutan	BHU/KIP/87/PRP/29	Preparation of Kigali HFC implementation plan
Chile	CHI/KIP/88/PRP/207	Preparation of Kigali HFC implementation plan
Colombia	COL/KIP/87/PRP/110	Preparation of Kigali HFC implementation plan
Costa Rica	COS/KIP/87/PRP/63	Preparation of Kigali HFC implementation plan
Cuba	CUB/KIP/87/PRP/65	Preparation of Kigali HFC implementation plan
Dominican Republic	DOM/KIP/87/PRP/73	Preparation of Kigali HFC implementation plan
El Salvador	ELS/KIP/88/PRP/44	Preparation of Kigali HFC implementation plan
Fiji	FIJ/KIP/88/PRP/41	Preparation of Kigali HFC implementation plan
Ghana	GHA/KIP/87/PRP/51	Preparation of Kigali HFC implementation plan
Grenada	GRN/KIP/88/PRP/28	Preparation of Kigali HFC implementation plan
Cambodia	KAM/KIP/88/PRP/40	Preparation of Kigali HFC implementation plan
Kyrgyzstan	KYR/KIP/87/PRP/45	Preparation of Kigali HFC implementation plan
Laos PDR	LAO/KIP/87/PRP/39	Preparation of Kigali HFC implementation plan
Lebanon	LEB/KIP/87/PRP/98	Preparation of Kigali HFC implementation plan
Maldives	MDV/KIP/87/PRP/36	Preparation of Kigali HFC implementation plan
Mexico	MEX/KIP/87/PRP/195	Preparation of Kigali HFC implementation plan
Mozambique	MOZ/KIP/90/PRP/36	Preparation of Kigali HFC implementation plan
Nigeria	NIR/KIP/87/PRP/156	Preparation of Kigali HFC implementation plan
Panama	PAN/KIP/87/PRP/53	Preparation of Kigali HFC implementation plan
Paraguay	PAR/KIP/87/PRP/42	Preparation of Kigali HFC implementation plan
Peru	PER/KIP/87/PRP/59	Preparation of Kigali HFC implementation plan
Sri Lanka	SRL/KIP/87/PRP/59	Preparation of Kigali HFC implementation plan
Eswatini	SWA/KIP/87/PRP/33	Preparation of Kigali HFC implementation plan
Trinidad & Tobago	TRI/KIP/87/PRP/40	Preparation of Kigali HFC implementation plan
Turkiye	TUR/KIP/90/PRP/112	Preparation of Kigali HFC implementation plan
Uruguay	URU/KIP/87/PRP/77	Preparation of Kigali HFC implementation plan

D. Country Highlights (January – December 2021)

UNDP has been dedicated to finding innovative solutions for countries to address their Montreal Protocol compliance obligations. Interventions have supported countries to strengthen the coordination of stakeholders, access emerging technologies, improve operational standards and skills of technicians, reduce energy bills for consumers, and allow indigenous manufacturers to maintain competitiveness.

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

Bangladesh – Improving Capacities in the Servicing Sector under the Enabling Activities



The government of Bangladesh decided to convert their Domestic Refrigeration, AC manufacturing and Chillers (MLF-eligible) manufacturing industries to R-600a, R-290/R-32 and R-32, respectively. The country is not familiar with A3 and A2L class of refrigerants. While current market penetration of such products is still relatively low, it is expected that the demand will increase rapidly in the future.

Taking advantage of the Enabling Activity for HFC Phase-down, approved by the Multilateral Fund (MLF) during the 81st Executive Committee (ExCom) Meeting, additional contribution was provided by Environment and Climate Change Canada (ECCC), as co-finance for the implementation of a capacity building for the servicing sector to pilot tailor-made trainings were designed and delivery to provide theoretical (30%) and practical skills (70%). 162 Technicians that handle these types of AC-R equipment were trained in four training programmes, including a Refrigeration Specialists Training (TRACE – “Train the Trainers”). The training also contained a Policy Sensitization section to be carried out by the Department of Environment (DoE), as NOU will also join. As follow up, the Director General of Department of Environment, as a Chief Guest, awarded certificates to participants during the Certificate Awarding Ceremony on 21 December 2020.

These trainings are critical to start forming an initial basis of qualified technicians that can support the deployment of the new products converted by the HPMP, and also offered valuable lessons learned to the NOU in terms of understanding the new technological needs for these type of products, how to properly and safely install and maintain flammable-based equipment, actions that can increase the life cycle of the products and to maintain the intended energy efficiency performance. These lessons learned are expected to be applied in future capacity building activities under the KIP implementation.

Chile

The introduction of HFO-based polyurethane systems has been challenging in Latin America, due to technical challenges, limited supply and higher costs, nevertheless, the implementation of the foam component of the HPMP 2 of Chile has been an example of HFO-based polyurethane systems uptake. The NOU, UNDP and its technical expert, system houses and beneficiary companies worked together to overcome the challenges for the introduction of HFO-based systems. All parts involved worked to highlight the environmental and technical advantage of HFO-based systems over other interim technologies, which facilitate the buy-in for all beneficiary companies of the umbrella and individual projects. Currently, 35 companies work with these systems which were converted thanks to the financial support of the Multilateral Fund through 7 individual and 2 umbrella projects

China

UNDP is supporting China to advance the phase-out of HCFCs in ICR and Solvent sectors. For the ICR sector, in the first three tranches, 18 manufacturing lines were converted for phasing-out 2,557 tonnes of HCFC 22. The fourth tranche was approved for the conversion of additional 14 manufacturing lines which would lead to the phase out of 1,492.28 tons of HCFC-22. A large co-finance amount from concerned companies are required for the conversion.

Under the Solvents Sector, the conversions in 24 manufacturing lines were carried out during the first, second and third tranches, resulted in the phasing-out of 1,176 tons of HCFC-141b. Additional 25 companies (mostly SMEs) with HCFC-141b consumption of 372.1 tons are under implementation in the

fourth tranche.

The project management unit in MEE/FECO is intensifying their efforts of promoting low GWP alternatives through technical assistance activities with support from Industry Associations. Trainings and experience sharing are being delivered for the enterprises that need to shift their technologies from HCFCs to alternatives.

Ghana: Integration of refrigerant transition and energy efficiency

The stage-I HPMP for Ghana is being completed. The stage-II project for the complete phase-out of HCFC consumption by 2030 was approved at the 87th meeting of the MLF. Ghana has established an affiliated center of excellence in Northern Ghana within the University of Development Studies, Tamale to serve as the training center for both formal and informal RAC sector. In collaboration with national RAC associations (RAAG and NARWOA), a total of 200 technicians were trained on minimum energy performance standards and the enforcement for the ban on second-hand AC equipment imports. As an awareness raising activity, a video for the general public, “Do’s and Don’t’s of refrigeration” was published in English and the local language, Twi. In addition, Ghana has developed a National Cooling Plan, with the support of Kigali Cooling Efficiency Programme.

India: Partnership for supporting SMEs and sustainability of HCFC phase-out

Hundreds of small businesses in the foam sector have been a significant challenge for India in the HCFC-141b phase-out. HPMP Stage-II aimed to phase out all HCFC-141b by 2020 and minimize adverse economic impacts to the foam manufacturing industry. In view of the challenges, a special partnership has been established.

The Ozone Cell has entered into a Memorandum of Agreement (MOA) with a technical and research institution of the Department of Chemicals and Petrochemicals (DCPC), who provided adequate technical support to the MSMEs in customization and optimization of alternative formulations at the enterprise level on-site as well as training on the safe use of alternatives to suit local conditions. After 2020, the technical and research institution continues to deliver support to those enterprises for improvement of production processes. They have now become an “Independent Centre of Excellence” for technical matters related to the PU Foam Industry and are providing additional services by using their state-of-the-art laboratory. This partnership established between the Ozone Cell and the DCPC strengthened the cooperation of different governmental institutions, being a unique action that not only facilitated the successful phase out of HCFC-141b, but is expected to continue sustaining the phase-out of the HCFC-141b by the MSMEs.

Kyrgyzstan

The Government of Kyrgyzstan as an Article 5 country has successfully completed implementation of an expedited HCFC phase-out schedule in 2021, 10 years ahead of schedule, with the support of UNDP. The capacity of the country in the management of HCFCs and recycling and re-use system has been significantly strengthened. In addition, efforts have been made to introduce low-carbon refrigeration technologies, such as demonstration of propane-based installations in the commercial sector and not-in-kind technologies in the cellular network systems. This demonstration activity helps address the capacity issue of a lack of competence and skills to operate natural refrigerants, that has been an issue in the past in these important economic sectors.

Panama

Within the framework of the second stage of the HPMP, the Panama NOU worked closely with vocational schools around the country to spread the new skills and knowledges that are needed in the

transition of technologies. In order to strengthen their refrigeration and air conditioning laboratories, young students (future-to-be technicians) were given tools and equipment to incorporate good refrigeration practices in their courses. The NOU and the Ministry of Education collaborate with each other to support these vocational schools, with an emphasis on rural and deprived areas. From each vocational school, basic tools sets were distributed to 32 outstanding students to motivate them uptake the new technologies and good practices and creating job opportunities.

Sri Lanka – Advancing Gender Mainstreaming in MLF Projects

Considering the low level of participation of women in RAC sector, the Sri Lanka NOU has been taking various measures to improve gender equality in MP activities. As part of this effort, during 2021, a variety of Ozone awareness activities were held across the stakeholders and communities.



A series of competitions were held on the World Ozone Day 2021 to raise awareness and widen engagement of different segments in the community.

Among 1,637 participants engaged in the competitions, there were 1,305 females, which is 80% of the total competitors.



In 2021, the NOU engaged with the Girl Guides Association of Sri Lanka and introduced the Ozone Friends' Badge to involve more girls. This encourages girls to join in the cooling business. This initiative is being continued in 2022 with an idea to develop the curriculum that members would follow to fulfil the requirements of achieving the 'Ozone Friends' National Badge. Badges will be awarded annually at National Ozone Day Celebrations.

These activities have resulted in improved participation of women in various awareness programs (more than 50%) as well as RAC training programs, which included 40% women participation.

The Director of the NOU presented the case studies and lessons learned at the UNDP Gender Webinars with the purpose of sharing and motivating others to promote gender equality in the MLF projects through local interventions.

Fiji & India – south-south cooperation and knowledge sharing



UNDP MPU helped organize a visit for delegates from Fiji to India in 2021. The India Ozone Cell welcomed Fiji delegation and facilitated meetings and site visits on technical trainings and industry processes. The visit gave Fiji a perspective on how the projects are implemented in India.

South-South cooperation between A5 countries are one of key factors in the success of the Montreal Protocol. UNEP's regional network has facilitated such coordination, but field visits can provide more specific observation and in-depth exchange.

Fiji has benefitted a lot through this exchange with India by sharing experiences on the challenges and lessons learnt in implementing similar projects. Retrofitting and recovery activities was one of the main

take backs. Technical knowledge within the government is critical. This was visible within the Ozone Cell team of India. It provided a comprehensive outlook on approaches of the Montreal Protocol projects that constantly require technical expertise. India has also provided its technical support to Fiji.

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

A. Meetings Attended by UNDP in 2021

The COVID-19 pandemic has continued to impose limitations on travel in 2021 and all meetings were held virtually.

B. Other Issues

None.

ANNEX 1: Virtual trainings organized in 2021

Virtual trainings 2021										
No. webinars	No. sessions	Month	Year	Region	Language	Title	Content	Time	Attendees/virtual training	% participation of women
UNDP: Montreal Protocol Unit										
1	2	March	2021	Latin America	Spanish	Analysis for the control of HFCs	To analyze how to record the imports and exports of HFCs and to analyze the sense of the phase-down process in terms of alternative selection, quota system and issuance and the flexibility for the implementation of the Kigali Amendment	120 min	43	67
2	2			The Caribbean	English				21	62
3	2	March	2021	Latin America	Spanish	Phase-out of HCFC-141b in polyurethane foams in Chile	To share Chile's experience during the HCFC-141b phase-out process as a blowing agent in polyurethane foams	120 min	61	57
4	2	April	2021	Latin America	Spanish	Complementary skills for training technicians in the RAC sector	To show the new tools and complementary skills that refrigeration and air conditioning technicians will require to carry out work for the handling, repair and maintenance of equipment in the sector	120 min	128	23
5	1	April	2021	Peru	Spanish	The Montreal Protocol and future international commitments	To understand the new challenges and opportunities that the Kigali Amendment will bring. Understand that alternative refrigerants and new technology provide the opportunity to be more efficient against HFCs.	60 min	82	Not data available
6	1	April	2021	Peru	Spanish	New technologies in the RAC sector and alternative refrigerants with low GWP	To present the technological alternatives available for the substitution of HCFCs, showing their advantages and disadvantages for the different subsectors of the RAC sector	60 min	75	Not data available
7	2	May	2021	Latin America	Spanish	To understand VRF systems, main characteristics, performance, applications, energy efficiency, installation and maintenance, refrigerants used, advantages and	Understand VRF systems, main characteristics, performance, applications, energy efficiency, installation and maintenance, refrigerants used, advantages and disadvantages in order to carry out a comparative analysis against chillers	120 min	74	20
8	2			The Caribbean	English				26	7

Virtual trainings 2021										
No. webinars	No. sessions	Month	Year	Region	Language	Title	Content	Time	Attendees/virtual training	% participation of women
						disadvantages in order to carry out a comparative analysis against chillers				
9	3	June	2021	Latin America	Spanish	Closing the loop: Environmental sound management of end-of-life ODS and HF	Present the experience and available alternatives for the environmentally sound management of ODS and HFCs	210 min	103	55
				The Caribbean	English				84	41
10	1	June	2021	Guyana	English	Addressing the Challenge of new Technologies and Energy Efficiency in the RAC Sector	To understand the new challenges and opportunities that the Kigali Amendment will bring. Understand that alternative refrigerants and new technology provide the opportunity to be more efficient against HFCs.	60 min	7	Not data available
11	1	August	2021	Latin America	Spanish	Mobile air conditioning sector (MAC)	To present the characteristics of MAC systems, alternative refrigerants to replace HFCs, technological change and safe handling of new refrigerants	60 min	50	26
	The Caribbean			English	54				15	
12	2	August	2021	Latin America	Spanish	Cold chain for food and vaccines	Understand food chain main characteristics and the importance of refrigeration to reduce food losses and understand the specific needs for refrigeration and cooling of vaccines (and COVID-19 vaccines in particular) in the distribution chain	120 min	34	28
	The Caribbean			English	14				6	
13	1	August	2021	Haiti	French	International experience for the management of a refrigerant Recovery, Recycling and Regeneration Center (RRC)	Share experience on the installation, operation of a RRC and a refrigerator collection center in Mexico	60 min	12	Not data available
14	1	September	2021	Haiti	Inglés	Food and Vaccine Cold Chain (Haiti)	To understand food chain main characteristics and the importance of refrigeration to reduce food losses and the specific needs for refrigeration and cooling of vaccines (and COVID-19 vaccines in particular) in the distribution chain	60 min	12	17

Virtual trainings 2021										
No. webinars	No. sessions	Month	Year	Region	Language	Title	Content	Time	Attendees/virtual training	% participation of women
15	2	September	2021	Latin America, the Caribbean and Asia	Spanish/English	Delivering Energy Efficient and Climate Friendly Cooling through National Cooling Action Plans (NCAPs) UNDP-PNUMA/Coll Coalition	The proposed workshop will bring together participants from Latin America and the Caribbean, linking them with the experts to discuss how to develop and implement National Cooling Action Plans including challenges, opportunities and solutions, and to identify short-term regional priority activities for implementation	180 min	174	39
16	1	October	2021	Latin America, the Caribbean and Asia	Spanish/English	Requirements for the Licensing and Quota System for HFCs to implement the Kigali amendment	To present and discuss the requirements and needs for the creation of a licensing and quota system for the implementation of the Kigali amendment	90 min	55	60
17	2	November	2021	Latin America and the Caribbean	Spanish/English	Refrigerated Transport	To know about the different applications of refrigerated transport and its importance within the cold chain. What types of equipment currently operate in refrigerated transport. To know the different refrigerants with low GWP that are used in the sector	120 min	19	42
18	1	November	2021	Latin America and the Caribbean	Spanish/English	Kigali HFC Implementation Plan (KIP): Guidelines and Recommendations	To inform on the requirements necessary for the preparation of a KIP, key points to consider, dates for submitting a KIP to ExCom, guidelines and recommendations for its design	60 min	26	69
19	1	December	2021	Latin America and the Caribbean	Spanish/English	HFC quota allowance system formulation	To present practical exercises on CO2eq quota allocation models. Discuss the advantages and disadvantages of each other	60 min	30	57

ANNEX 2: Tables related to the Performance Indicators

1. Performance Indicator 1: MYAs

Multi-year agreements submitted in 2021 are listed in the following table.

MLF Number
ANG/PHA/88/INV/23
BRA/PHA/88/INV/326
BZE/PHA/87/INV/40
COL/PHA/88/INV/111
COL/PHA/88/INV/114
CPR/PHA/88/INV/602
CPR/PHA/88/INV/604
DRC/PHA/88/INV/49
EGY/PHA/88/INV/152
ELS/PHA/87/INV/43
FIJ/PHA/88/INV/39
GEO/PHA/88/INV/44
GHA/PHA/87/INV/50
IDS/PHA/88/INV/217
MAL/PHA/88/INV/193
MOL/PHA/88/INV/45
NIR/PHA/88/INV/160
NIR/PHA/88/INV/162
NIR/PHA/88/INV/163
PAR/PHA/87/INV/43
TLS/PHA/88/INV/24

2. Performance Indicator 2: Individual Projects

The number of individual projects approved in 2021 are listed in the following table.

MLF Number
ANG/KIP/88/PRP/24
BGD/SEV/88/INS/56
BHU/KIP/87/PRP/29
BRA/PHA/88/PRP/330
CHI/KIP/88/PRP/207
CHI/SEV/87/INS/204
COL/KIP/87/PRP/110
COL/SEV/88/INS/115
COS/KIP/87/PRP/63
COS/SEV/88/INS/64

CUB/KIP/87/PRP/65
CUB/PHA/88/TAS/66
DOM/KIP/87/PRP/73
ELS/KIP/88/PRP/44
FIJ/KIP/88/PRP/41
GHA/KIP/87/PRP/51
GLO/SEV/88/TAS/360
GRN/KIP/88/PRP/28
IDS/PHA/87/PRP/216
IND/PHA/87/PRP/484
IND/PHA/87/PRP/485
IND/PHA/87/PRP/486
IND/PHA/87/PRP/487
IND/SEV/88/INS/491
IRA/PHA/87/PRP/254
IRA/PHA/87/PRP/256
KAM/KIP/88/PRP/40
KYR/KIP/87/PRP/45
LAO/KIP/87/PRP/39
LEB/KIP/87/PRP/98
MAL/PHA/87/PRP/189
MAL/SEV/88/INS/192
MDV/KIP/87/PRP/36
MEX/KIP/87/PRP/195
NIR/KIP/87/PRP/156
PAK/SEV/87/INS/108
PAN/KIP/87/PRP/53
PAR/KIP/87/PRP/42
PER/KIP/87/PRP/59
SRL/KIP/87/PRP/59
SWA/KIP/87/PRP/33
TRI/KIP/87/PRP/40
TRI/SEV/88/INS/41
URU/KIP/87/PRP/77
URU/SEV/88/INS/78

3. Performance Indicator 3: Funds disbursed

2021 Disbursements	\$ 24,520,669
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4. Performance Indicator 4: 2021 ODS phase-out

Country	Sector	ODP 2021 Adjusted
Approved MYAS		
Angola	Approved Multi-Year - HPMP Stage II	3.69
Brazil	Approved Multi-Year - HPMP Stage II	62.94
China	Approved Multi-Year - HPMP Stage II - ICR	182.43
China	Approved Multi-Year - HPMP Stage II - Solvent	44.51
Colombia	Approved Multi-Year - HPMP Stage II	6.02
Egypt	Approved Multi-Year - HPMP Stage II	7.93
Indonesia	Approved Multi-Year - HPMP Stage II	6.37
Malaysia	Approved Multi-Year - HPMP Stage II	3.69
Nigeria	Approved Multi-Year - HPMP Stage II	22.09
Timor Leste	Approved Multi-Year - HPMP Stage II	0.04
New MYAs		
Belize	HPMP Stage II - INV - Refrigeration Servicing	0.18
Fiji	HPMP Stage II - INV - Refrigeration Servicing	1.13
Georgia	HPMP Stage II - INV - Refrigeration Servicing	0.69
Ghana	HPMP Stage II - INV - Refrigeration Servicing	5.59
Paraguay	HPMP Stage II - INV - Refrigeration Servicing	0.7
Republic of Moldova	HPMP Stage III - INV - Refrigeration Servicing	0.09
Total		348.1

5. Performance Indicator 5: Projects completed in 2021.

The following 48 projects were completed in 2021.

MLF Number
ANG/PHA/84/TAS/22
ARM/PHA/86/INV/26
CHI/SEV/83/INS/198
COL/PHA/75/INV/98
COL/PHA/81/INV/102
COL/SEV/79/INS/101
COS/SEV/84/INS/62
CPR/PHA/77/INV/577
CPR/SEV/82/INS/596
CUB/PHA/85/TAS/63
CUB/SEV/81/TAS/57
DOM/PHA/82/INV/66

DOM/PHA/86/INV/70
ELS/PHA/79/TAS/36
ELS/PHA/86/INV/41
ELS/SEV/81/TAS/37
GEO/PHA/72/INV/35
GEO/PHA/81/INV/39
GEO/SEV/81/INS/40
GHA/PHA/84/INV/48
GLO/SEV/86/TAS/354
HAI/PHA/76/INV/22
HAI/SEV/84/TAS/23
IND/PHA/77/TAS/472
IND/PHA/82/INV/475
IND/SEV/84/INS/478
IRA/PHA/84/TAS/241
IRA/SEV/82/INS/231
JAM/PHA/76/INV/36
JAM/PHA/84/TAS/39
JAM/PHA/85/INV/41
KYR/PHA/85/INV/42
LEB/PHA/81/INV/93
LEB/PHA/81/TAS/92
LEB/SEV/82/INS/94
MAL/PHA/77/TAS/182
MAL/SEV/84/INS/188
MOL/PHA/86/INV/43
PAK/SEV/82/INS/98
PAN/PHA/76/INV/44
PAN/PHA/82/INV/48
PAN/PHA/85/TAS/51
PAN/SEV/80/INS/45
PAN/SEV/81/TAS/46
SRL/PHA/85/INV/54
TRI/PHA/86/INV/39
TRI/SEV/83/INS/37
URU/PHA/82/TAS/71

7. Performance Indicator 7: Final Revisions

Last year's database 62 projects, of which 43 should have been financially completed in 2021. This year's database counts 44 projects for which a final revision was issued in 2021.

8. Performance Indicator 8: PCRs

100% achieved (3 individual PCRs were due and submitted in 2021).

9. Performance Indicator 9

Progress Report produced on 22 August 2022 as required.