

Programa de las Naciones Unidas para el Medio Ambiente Distr. GENERAL

UNEP/OzL.Pro/ExCom/87/15 16 de junio de 2021

ESPAÑOL ORIGINAL: INGLÉS

COMITÉ EJECUTIVO DEL FONDO MULTILATERAL PARA LA APLICACIÓN DEL PROTOCOLO DE MONTREAL Octogésima séptima Reunión Montreal, 28 de junio -2 de julio de 2021<sup>1</sup>

# PROGRAMA DE TRABAJO DEL PNUD PARA 2021

En junio y julio de 2021 se celebrarán reuniones en línea y se llevará a cabo el proceso de aprobación entre períodos de sesiones, debido al coronavirus (COVID-19).

Los documentos previos al período de sesiones del Comité Ejecutivo del Fondo Multilateral para la Aplicación del Protocolo de Montreal no van en perjuicio de cualquier decisión que el Comité Ejecutivo pudiera adoptar después de la emisión de los mismos.

# COMENTARIOS Y RECOMENDACIÓN DE LA SECRETARÍA DEL FONDO

1. El PNUD solicita al Comité Ejecutivo la aprobación de la cantidad de 3 368 102 \$EUA, más unos gastos de apoyo del organismo de 235 767 \$EUA, para su programa de trabajo de 2021 que se expone en la tabla 1<sup>2</sup>. La presentación se adjunta al presente documento.

País SECCIÓN A: A(		Actividad/Proyecto ES RECOMENDADAS PARA APROBACIÓN GE	Cantidad solicitada (\$EUA) NERAL	Cantidad recomendada (\$EUA)
		os de fortalecimiento institucional		
Chile	Renovaci XIV)	ón del proyecto de fortalecimiento institucional (fase	238 784	238 784
Pakistán	Renovaci XI)	ón del proyecto de fortalecimiento institucional (fase	287 318	287 318
		Subtotal para A1	526 102	526 102
		Gastos de apoyo al organismo	36 827	36 827
		Total para A1	562 929	562 929
		os para planes de gestión de la eliminación de los H		1
India <sup>ab</sup>		ón de un PGEH (etapa III)	30 000	30 000
India	de HCFC	ón de actividades de inversión para la eliminación (aire acondicionado)	150 000	150 000
India		ón de actividades de inversión para la eliminación (refrigeración)	150 000	150 000
India		ón de actividades de inversión para la eliminación (lucha contra incendios)	60 000	60 000
Indonesia	Preparaci	ón de un PGEH (etapa III)	90 000	90 000
República Islámica de Irán <sup>a b</sup> °		ón de un PGEH (etapa III)	25 000	25 000
República Islámica de Iránª		ón para las actividades de inversión para la ón de HCFC (refrigeración y aire acondicionado es)	25 000	25 000
Malasia	Preparaci	ón de un PGEH (etapa III)	90 000	90 000
		Subtotal para A2	620 000	620 000
		Gastos de apoyo al organismo	43 400	43 400
		Total para A2	663 400	663 400
<u>SECCIÓN B: </u> AC	CTIVIDAD	ES RECOMENDADAS PARA CONSIDERACIÓN	PARTICULA	R
B1: Preparación		os para planes de gestión de la reducción de los HFC		•
País	Reunión en la que se presentó	Actividad/Proyecto	Cantidad solicitada (\$EUA)	Cantidad recomendada (\$EUA)
Bhután <sup>d</sup>	86	Preparación de un plan de gestión de la reducción de los HFC	10 000	*
Colombia	87	Preparación de un plan de gestión de la reducción de los HFC	205 000	*
Costa Rica	85	Preparación de un plan de gestión de la reducción de los HFC	150 000	*
Cuba	85	Preparación de un plan de gestión de la reducción de los HFC	150 000	*

# Tabla 1: Programa de Trabajo del PNUD para 2021

<sup>&</sup>lt;sup>2</sup> Incluyendo las nuevas solicitudes a la 87ª reunión adjuntas al presente documento y las solicitudes de preparación de planes de gestión de eliminación de los HFC remitidas desde las reuniones 85ª y 86ª presentadas en los documentos UNEP/OzL.Pro/ExCom/85/15 y UNEP/OzL.Pro/ExCom/86/33, respectivamente.

República	87	Preparación de un plan de gestión de la reducción de	170 000	*
Dominicana		los HFC		
Eswatini <sup>d</sup>	87	Preparación de un plan de gestión de la reducción de los HFC	30 000	*
Ghana <sup>b</sup>	86	Preparación de un plan de gestión de la reducción de los HFC	105 000	*
Kirguistán <sup>b</sup>	86	Preparación de un plan de gestión de la reducción de los HFC	60 000	*
Lao (República Democrática Popular) <sup>d</sup>	86	Preparación de un plan de gestión de la reducción de los HFC	10 000	*
Líbano	86	Preparación de un plan de gestión de la reducción de los HFC	150 000	*
Maldivas <sup>d</sup>	86	Preparación de un plan de gestión de la reducción de los HFC	10 000	*
México <sup>b e</sup>	86	Preparación de un plan de gestión de la reducción de los HFC	90 000	*
Nigeria <sup>b c</sup>	86/87 <sup>3</sup>	Preparación de un plan de gestión de la reducción de los HFC	137 000	*
Panamá	87	Preparación de un plan de gestión de la reducción de los HFC	190 000	*
Paraguay	87	Preparación de un plan de gestión de la reducción de los HFC	170 000	*
Perú	86	Preparación de un plan de gestión de la reducción de los HFC	150 000	*
Sri Lanka <sup>ь</sup>	87	Preparación de un plan de gestión de la reducción de los HFC	135 000	*
Trinidad y Tobago	87	Preparación de un plan de gestión de la reducción de los HFC	150 000	*
Uruguay	85	Preparación de un plan de gestión de la reducción de los HFC	150 000	*
		Subtotal para B1	2 222 000	*
		Gastos de apoyo al organismo	155 540	*
		Total para B1	2 377 540	*
		Gran total (A1, A2, B1)	3 603 869	1 226 329

<sup>a</sup>Gobierno de Alemania como organismo bilateral cooperante

<sup>b</sup> PNUMA como organismo de ejecución cooperante

<sup>c</sup> ONUDI como organismo de ejecución cooperante

<sup>d</sup> PNUMA organismo de ejecución director

<sup>e</sup>ONUDI como organismo de ejecución director

\* Para consideración particular

# SECCIÓN A: ACTIVIDADES RECOMENDADAS PARA APROBACIÓN GENERAL

#### A1: Renovación de proyectos de fortalecimiento institucional

#### Descripción de los proyectos

2. El PNUD presentó solicitudes para la renovación de proyectos de fortalecimiento institucional de los países citados en la sección A1 de la tabla 1. La descripción de estos proyectos se presenta en el anexo I del presente documento.

<sup>&</sup>lt;sup>3</sup> Se vuelve a presentar en la 87<sup>a</sup> reunión para incluir a la ONUDI y al PNUMA como organismos de cooperación

# Comentarios de la Secretaría

3. La Secretaría examinó las solicitudes de renovación de dos proyectos de fortalecimiento institucional en nombre de los Gobiernos concernidos teniendo en cuenta las orientaciones y las decisiones pertinentes sobre admisibilidad y los niveles de financiación. Las solicitudes fueron doblemente verificadas comparándolas con los planes de trabajo originales para el fortalecimiento institucional de la fase anterior, los datos del programa del país y del Artículo 7, el último informe sobre la aplicación del plan de gestión de la eliminación de los HCFC (PGEH), el informe sobre el avance de las actividades del organismo y cualquier decisión pertinente de la Reunión de las Partes. Se observó que estos países han presentado los datos de su programa de país de 2020 y cumplen con los objetivos de control en virtud del Protocolo de Montreal y su consumo anual de HCFC no supera el consumo anual máximo admisible indicado en sus Acuerdos del PGEH con el Comité Ejecutivo. Asimismo, las solicitudes presentadas incluían indicadores de desempeño para las actividades planificadas para la siguiente fase de los proyectos de fortalecimiento institucional, de acuerdo con la decisión 74/51(e).

# Recomendación de la Secretaría

4. La Secretaría recomienda la aprobación general de las solicitudes de renovación del fortalecimiento institucional de Chile y Pakistán con el nivel de financiación indicado en la sección A1 de la tabla 1 del presente documento. El Comité Ejecutivo puede considerar oportuno expresar a los Gobiernos mencionados anteriormente los comentarios que se presentan en el anexo II de este documento.

## A2: Preparación de proyectos para planes de gestión de la eliminación de los HCFC

## Descripción de proyectos

5. El PNUD presentó solicitudes para la preparación de la etapa III de los planes de gestión de la eliminación de los HCFC (PGEH) para dos países que operan al amparo del Artículo 5 como organismo de ejecución designado; para otros dos como organismo de ejecución director con el Gobierno de Alemania y el PNUMA como organismos cooperantes para la India; y el Gobierno de Alemania, el PNUMA y la ONUDI como organismos cooperantes para la República Islámica de Irán. Además, el PNUD solicitó financiación para la preparación de cuatro actividades de inversión: tres en la India, en los sectores de la refrigeración, el aire acondicionado y la extinción de incendios, y una en la República Islámica de Irán, en el sector de la refrigeración y el aire acondicionado (RAC) industriales, como parte de la etapa III de los PGEH para estos dos países que operan al amparo del Artículo 5. Estas solicitudes se muestran en la sección A2 de la tabla 1.

6. Como organismos de cooperación para la India y la República Islámica de Irán, el Gobierno de Alemania ha solicitado un total de 80 000 \$EUA, más unos gastos de apoyo del organismo de 10 400 \$EUA en el marco de la cooperación bilateral<sup>4</sup>; y el PNUMA ha solicitado un total de 35 000 \$EUA, más unos gastos de apoyo del organismo de 4 550 \$EUA en sus programas de trabajo para 2021<sup>5</sup>. La ONUDI, en calidad de organismo de ejecución cooperante para la República Islámica de Irán, ha solicitado 65 000 \$EUA, más 4 550 EUA en concepto de gastos de apoyo del organismo, en sus programas de trabajo para 2021<sup>6</sup>.

7. El PNUD presentó descripciones de las actividades para apoyar las solicitudes de preparación de proyectos. Las presentaciones incluyeron: justificación de la financiación solicitada para la preparación de proyectos; un informe sobre el avance de las actividades en la ejecución de la etapa II de sus PGEH respectivos; y la lista de posibles actividades y los costos asociados.

<sup>&</sup>lt;sup>4</sup> UNEP/OzL.Pro/ExCom/87/14

<sup>&</sup>lt;sup>5</sup> UNEP/OzL.Pro/ExCom/87/16.

<sup>&</sup>lt;sup>6</sup> UNEP/OzL.Pro/ExCom/87/17.

# Comentarios de la Secretaría

8. En el examen de las cuatro solicitudes, la Secretaría tuvo en cuenta las orientaciones para financiar la preparación de los PGEH para países que operan al amparo del Artículo 5 que figuran en la decisión 71/42; la etapa II de los PGEH, tal y como se aprobó y el estado de ejecución de los tramos en el momento de preparar el presente documento; y la decisión 82/45 c) i)<sup>7</sup>. La Secretaría observó que la financiación solicitada para cada país se ajustaba a lo dispuesto en la decisión  $71/42^8$  y que el PNUD había confirmado que los tramos de financiación restantes para esos países se presentarían según lo previsto en los acuerdos con el Comité Ejecutivo.

9. El PNUD confirmó que en la etapa III del PGEH de India, Indonesia, República Islámica de Irán y Malasia se eliminará el 100 % de la base de referencia de los HCFC para el 1° de enero de 2030.

10. El PNUD proporcionó la información requerida (número de empresas y nivel de consumo de HCFC) para apoyar las solicitudes de financiación para la preparación de tres proyectos de inversión para la conversión de los sectores de fabricación de refrigeración, aire acondicionado y extinción de incendios, que no recibieron asistencia en la etapa II del PGEH para la India; y para los proyectos de inversión para la conversión de los sectores de RAC industrial y de fabricación de equipos de RAC industriales que no recibieron asistencia en la etapa II del PGEH para la República Islámica de Irán.

# Recomendaciones de la Secretaría

11. La Secretaría recomienda la aprobación general para la preparación de proyectos para la etapa III de los PGEH de India, Indonesia, República Islámica de Irán y Malasia con el nivel de financiación que figura en la sección A2 de la tabla 1.

# SECCIÓN B: ACTIVIDADES RECOMENDADAS PARA CONSIDERACIÓN PARTICULAR

# Solicitudes de preparación de proyectos presentadas a las 85ª y 86ª reuniones

12. En la 85<sup>a</sup> reunión, el PNUD incluyó solicitudes de financiación para la preparación de planes de gestión de la reducción de los HFC para tres países que operan al amparo del Artículo 5, en calidad organismo de ejecución designado<sup>9</sup>, que figuran en la sección B1 de la tabla 1.

13. En la 86<sup>a</sup> reunión, el PNUD presentó solicitudes para la preparación de planes de gestión de la reducción de los HFC para dos países que operan al amparo del Artículo 5 en calidad de organismo de ejecución designado, para tres países, en calidad de organismo de ejecución director<sup>10</sup> y para cuatro países en calidad de organismo de ejecución B1 de la tabla 1.

14. Estas solicitudes de financiación, presentadas para su consideración individual, no fueron estudiadas en las reuniones  $85^a$  y  $86^a$ , y se aplazaron hasta la  $87^a$  reunión a la luz del debate sobre el Proyecto de orientaciones para la preparación de los planes de reducción de los HFC para los países al amparo del Artículo 5 en la  $86^a$  reunión<sup>11</sup> y de acuerdo con la decisión 86/59. En consecuencia, las propuestas presentadas a las  $85^a$  y  $86^a$  reuniones se han incluido en el presente documento.

<sup>&</sup>lt;sup>7</sup> La inclusión de la etapa III de los PGEH en el plan administrativo refundido de 2019-2021 únicamente para los países que habían tenido una etapa II de un PGEH aprobada para cumplir un objetivo de reducción para 2020.

<sup>&</sup>lt;sup>8</sup> Orientaciones para la financiación de la preparación de la etapa II de los PGEH para los países que operan al amparo del Artículo 5.

<sup>&</sup>lt;sup>9</sup> UNEP/OzL.Pro/ExCom/85/15

<sup>&</sup>lt;sup>10</sup> Incluyendo a Nigeria, caso que volvió a presentarse en la 87<sup>a</sup> reunión, para incluir a la ONUDI y al PNUMA como organismos de ejecución cooperantes.

<sup>&</sup>lt;sup>11</sup> Cuestión 13 c) del orden del día

# B1: Preparación de proyectos para planes de gestión de la reducción de los HFC

#### Descripción de proyectos

15. El PNUD presentó solicitudes para la preparación de planes de gestión de la reducción de los HFC para cinco países que operan al amparo del Artículo 5 en calidad de organismo de ejecución designado, para dos países en calidad de organismo de ejecución director<sup>12</sup> y para un país en calidad de organismo de ejecución cooperante, como se indica en la sección B1 de la tabla 1. El PNUMA, como organismo de ejecución principal para Eswatini y como organismo de ejecución cooperante para Nigeria y Sri Lanka, solicitó 183 000 \$EUA, más unos gastos de apoyo del organismo de 23 790 \$EUA<sup>13</sup>; la ONUDI, como organismo de ejecución cooperante para Nigeria, solicitó 25 000 \$EUA, más unos gastos de apoyo del organismo de 1 750 \$EUA<sup>14</sup>, en sus programas de trabajo para 2021.

## Comentarios de la Secretaría

El PNUD, como organismo de ejecución director, proporcionó una descripción de las actividades 16. necesarias para la preparación de estrategias globales para la reducción de los HFC en Colombia, la República Dominicana, Panamá, Paraguay, Sri Lanka y Trinidad y Tobago y examinó las actividades para Nigeria, lo que incluyó los correspondientes costos de cada actividad, utilizando el formato para solicitudes de preparación de proyecto para las etapas de los PGEH. Las presentaciones incluyeron información reciente sobre las importaciones estimadas de HFC y mezclas de HFC para Colombia, la República Dominicana, Panamá, Paraguay y Trinidad y Tobago (es decir, 2017-2019, o 2018-2020) y datos más antiguos para Nigeria (2012-2015) y Sri Lanka (2012-2017); la lista de actividades para la preparación del proyecto incluía consultas con las partes interesadas, la elaboración de planes de comunicación y divulgación y de estrategias de eliminación de los HFC para los siete países; el análisis de la distribución sectorial y el consumo de HFC, y la evaluación de las necesidades de capacitación y certificación, y de reciclaje y recuperación se incluyeron para seis países; las actividades para Colombia y Sri Lanka incluyeron encuestas en subsectores que consumen HFC; en Sri Lanka y Nigeria las actividades incluyeron la mejora de capacidades relacionadas con las aduanas y la aplicación de la ley; y en Nigeria las actividades también incluyeron una evaluación del sector manufacturero. La financiación solicitada se basa en la propuesta de Proyecto de orientaciones para la preparación de los planes de reducción de los HFC<sup>15</sup>, que se presentó en la 86ª reunión y se aplazó hasta la 87ª para seguir debatiéndola.

17. La financiación solicitada para la preparación de las propuestas de proyectos en la 85<sup>a</sup> reunión se basó en la financiación de las actividades de apoyo (que figura en la decisión 79/46 c)); sin embargo, la financiación solicitada en la 86<sup>a</sup> reunión se basó en la financiación de la preparación de proyectos para la etapa I de los PGEH (que figura en la decisión 56/16 c)), ya que esa financiación fue utilizada por los organismos bilaterales y de ejecución en la preparación de sus planes administrativos para 2021-2023 que se presentaron a la 86<sup>a</sup> reunión. La Secretaría observa que los montos de financiación de las solicitudes de preparación de proyectos son indicativos, ya que los montos reales se decidirán cuando el Comité Ejecutivo concluya su examen del Proyecto de orientaciones para la preparación de los planes de reducción de los HFC para los países al amparo del Artículo 5 (decisión 86/93)<sup>16</sup>.

18. La Secretaría examinó las presentaciones basándose en la experiencia del examen de las solicitudes de preparación de los PGEH y teniendo en cuenta la orientación impartida y las decisiones adoptadas por el Comité Ejecutivo para esos proyectos.

<sup>&</sup>lt;sup>12</sup> Incluyendo a Nigeria, caso que volvió a presentarse en la 87<sup>a</sup> reunión, para incluir a la ONUDI y al PNUMA como organismos de ejecución cooperantes.

<sup>&</sup>lt;sup>13</sup> UNEP/OzL.Pro/ExCom/87/16

<sup>&</sup>lt;sup>14</sup> UNEP/OzL.Pro/ExCom/87/17.

<sup>&</sup>lt;sup>15</sup> UNEP/OzL.Pro/ExCom/86/88

<sup>&</sup>lt;sup>16</sup> UNEP/OzL.Pro/ExCom/87/46

- 19. Tras este examen, la Secretaría observó lo siguiente:
  - (a) Los siete países para los que el PNUD solicitó financiación para la preparación de un plan de gestión de la reducción de los HFC como organismo de ejecución designado o director han ratificado la Enmienda de Kigali<sup>17</sup>; cada uno de ellos reuniría las condiciones para recibir financiación para la preparación del proyecto de conformidad con la decisión 79/46 b) iii)<sup>18</sup>; los países también han presentado cartas de apoyo en las que indican su intención de adoptar medidas inmediatas para la reducción de los HFC; y
  - (b) Las actividades incluidas en la preparación de proyectos son similares a las que se requieren para preparar los PGEH. Algunas actividades se asemejan a las incluidas en las actividades de apoyo para la reducción de los HFC para las que ya se había proporcionado financiación a cada país, y que están en curso.

20. El PNUD aclaró que la preparación de proyectos para las estrategias generales de reducción de los HFC para esos países se basaría en las actividades realizadas en el marco de las actividades de apoyo, ya que éstas eran las primeras medidas relacionadas con la reducción de los HFC y habían contribuido a la ratificación de la Enmienda de Kigali. La aprobación de la financiación de estas solicitudes en la 87ª reunión permitirá que la aplicación de la reducción de los HFC comience en 2022 y que se logre el cumplimiento de la Enmienda de Kigali.

21. La Secretaría informó al PNUD de que no podrá formular una recomendación sobre estas solicitudes, ya que las orientaciones sobre la financiación de estas solicitudes seguirán examinándose en la 87<sup>a</sup> reunión.

#### Recomendación de la Secretaría

22. El Comité Ejecutivo puede considerar oportuno examinar, en consonancia con las deliberaciones en el marco de la cuestión 9 a) del orden del día, Reseña de las cuestiones identificadas durante el examen de proyectos, y la cuestión 13 c), Proyecto de orientaciones para la preparación de los planes de reducción de los HFC para los países al amparo del Artículo 5 (decisión 86/93), las solicitudes para financiar la preparación de planes de gestión de la reducción de los HFC para los países que se enumeran en la sección B1 de la tabla 1.

<sup>&</sup>lt;sup>17</sup> Fecha de ratificación (o aceptación) de la Enmienda de Kigali: Colombia, 25 de febrero de 2021; República Dominicana, 14 de abril de 2021; Nigeria, 20 de diciembre de 2018; Panamá, 29 de septiembre de 2018; Paraguay, 1 de noviembre de 2018; Sri Lanka 28 de septiembre de 2018; y Trinidad y Tobago, 17 de noviembre de 2017.

<sup>&</sup>lt;sup>18</sup> La financiación para la preparación de planes nacionales de ejecución para cumplir las obligaciones iniciales de reducción para la reducción progresiva de los HFC se podría proporcionar, como muy pronto, cinco años antes de la fecha de cumplimiento de esas obligaciones, después de que un país haya ratificado la Enmienda de Kigali y sobre la base de las orientaciones que se hayan de aprobar en el futuro.

# Annex I

# INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS

Summary of the project and country profile				
Implementing agency:			UNDP	
Amounts previously approved for institutional str	engthening (US \$):			
	Phase I:	Jun-92	213,000	
	Phase II:	Oct-96	113,500	
	Phase III:	Jul-98	143,500	
	Phase IV:	Dec-00	143,500	
	Phase V:	Nov-02	186,550	
	Phase VI:	Apr-05 and Nov-05	186,550	
	Phase VII:	Mar-07	186,550	
	Phase VIII:	Apr-09	186,550	
	Phase IX:	Apr-11	186,550	
	Phase X:	Apr-13	186,550	
	Phase XI:	May-15	186,550	
	Phase XII:	Jul-17	238,784	
	Phase XIII:	May19	238,784	
		Total:	2,396,918	
Amount requested for renewal (phase XIV) (US S			238,784	
Amount recommended for approval for phase XI	V (US \$):		238,784 16,715	
Agency support costs (US \$):				
Total cost of institutional strengthening phase XI	V to the Multilateral Fu	nd (US \$):	255,499	
Date of approval of country programme:			1992	
Date of approval of HCFC phase-out management	t plan (stage I):		2011	
Date of approval of HCFC phase-out management	t plan (stage II):		2018	
Baseline consumption of controlled substances (C	DDP tonnes):			
Annex B, Group III (methyl chloroform) (average	e 1998-2000)		6.4	
Annex C, Group I (HCFCs) (average 2009-2010)			87.5	
Annex E, (methyl bromide) (average 1995-1998)			212.5	
Latest reported ODS consumption (2019) (ODP to	onnes) as per Article 7:			
Annex B, Group III (methyl chloroform)	·····) F ·· · · · · · · · ·		0.00	
Annex C, Group I (HCFCs)			32.21	
Annex E, (methyl bromide)			0.00	
· · · · · · · · · · · · · · · · · · ·		Total:	32.21	
Year of reported country programme implementa	tion data:		2020	
Amount approved for projects (as at December 20			21,413,168	
Amount disbursed (as at December 2019) (US \$):			16,409,118	
ODS to be phased out (as at December 2020) (OI			1,333.6	
ODS phased out (as at December 2019) (ODP tor	,		1,040.0	

# **Chile: Renewal of institutional strengthening**

1.

Sum	mary of activities	Funds approved (US \$)
(a)	Investment projects:	12,535,861
(b)	Institutional strengthening:	2,396,918
(c)	Project preparation, technical assistance, training and other non-investment projects:	6,480,389
	Total:	21,413,168
(d)	HFC activities funded from additional voluntary contributions	150,000

# Progress report

2. During phase XIII, the NOU continued to coordinate ozone matters and assist in the implementation of stage II of the HPMP through working closely with local authorities and stakeholders on several activities including training of refrigeration and air-conditioning technicians, and in the formulation of stage III of the HPMP. The control on imports and exports of HCFCs, including those contained in pre-blended polyols, continues to be implemented in coordination with the National Customs Service. The HFC licensing system has also been established and is fully operational and the country is preparing for the implementation of the Kigali Amendment. The NOU participated in meetings relevant to the implementation of the Montreal Protocol. Of the ten performance indicators, eight were fully achieved, with two partially achieved. During the pandemic, the country continued to carry out the activities programmed in a satisfactory manner.

## Plan of action

3. During phase XIV, the Government of Chile will maintain the ban on CFC and halons, and the reductions achieved in HCFC consumption. The Government will establish the HFC baseline and its quota system. The NOU will work with public and private entities to enforce the control measures on the HCFC consumption, and assist in organizing and implementing activities including investment projects, a training programme on good refrigeration practices and awareness. Additionally, the Government will finalize the implementation of stage II of the HPMP and achieve compliance with the next HCFC reduction targets. The Government will continue the internal process for the implementation of the Kigali Amendment, and the NOU will continue its participation in network and global Montreal Protocol meetings, so as to exchange information and experience that will foster the implementation of national policies and strategies for the protection of the ozone layer.

Summary of the project and country profile			
Implementing agency:			UNDP
Amounts previously approved for institutional	strengthening (US \$):		
	Phase I:	Sept-94	259,000
	Phase II:	Dec-01	172,666
	Phase III:	Dec-03	224,467
	Phase IV:	Mar-07and Nov-07	224,467
	Phase V:	Apr-09	224,467
	Phase VI:	Dec-10	224,467
	Phase VII:	Dec-12	224,467
	Phase VIII:	Nov-14	224,467
	Phase IX:	Dec-16	287,318
	Phase X:	Dec-18	287,318
		Total:	2,353,104
Amount requested for renewal (phase XI) (US	\$):		287,318
Amount recommended for approval for phase X	XI (US \$):		287,318
Agency support costs (US \$):			20,112
Total cost of institutional strengthening phase X	KI to the Multilateral Fu	nd (US \$):	307,430
Date of approval of country programme:			1996
Date of approval of HCFC phase-out managem	ent plan:		2010
Baseline consumption of controlled substances	(ODP tonnes):		
Annex B, Group III (methyl chloroform) (avera			2.3
Annex C, Group I (HCFCs) (average 2009-201	0)		248.1
Annex E, (methyl bromide) (average 1995-199		14.0	
Latest reported ODS consumption (2020) (ODI		7:	
Annex B, Group III (methyl chloroform)	/ <b>1</b>		0.00

# Pakistan: Renewal of institutional strengthening

Annex C, Group I (HCFCs)		122.21
Annex E, (methyl bromide)		0.00
	Total:	122.21
Year of reported country programme implementation data:		2020
Amount approved for projects (as at December 2020) (US \$):		34,974,127
Amount disbursed (as at December 2019) (US \$):		27,181,695
ODS to be phased out (as at December 2020) (ODP tonnes):		2,605
ODS phased out (as at December 2019) (ODP tonnes):		2,569

4.

Sum	mary of activities	Funds approved
		(US \$)
(a)	Investment projects:	28,002,723
(b)	Institutional strengthening:	2,353,104
(c)	Project preparation, technical assistance, training and other non-investment projects:	4,618,300
	Total:	34,974,127
(d)	HFC activities funded from additional voluntary contributions	0

# Progress report

5. Phase X of the institutional strengthening project provided policy-level support to the HCFC phaseout strategy and helped the Government of Pakistan to meet its Montreal Protocol commitments through enforcement of regulation, monitoring, and collaboration with key stakeholders. The NOU worked closely with other agencies and stakeholders to ensure monitoring of ODS phase-out, and assist in the implementation of stage II of the HPMP and preparation of stage III. All four of the performance indicators for the reporting period were fully achieved.

#### Plan of action

6. Phase XI will continue to support the HPMP activities for stage II and stage III to achieve and sustain the HCFC reduction as agreed under the Montreal Protocol. Workshops for industry, importers and the public will be held regularly to raise awareness regarding the harmful effects of ODS, as well as the linkage to climate change. Close coordination will be maintained with academia and all relevant stakeholders for awareness-raising of the environment. In addition to implementation of policy, training and awareness activities, will ensure that all HPMP targets are met. Enabling activities will also be implemented which will help prepare the roadmap for HFC phase-down in Pakistan.

#### Anexo II

## OPINIONES PRELIMINARES EXPRESADAS POR EL COMITÉ EJECUTIVO SOBRE LA RENOVACIÓN DE PROYECTOS DE FORTALECIMIENTO INSTITUCIONAL PRESENTADOS A LA 87ª REUNIÓN

#### Chile

1. El Comité Ejecutivo examinó el informe presentado con la solicitud de renovación del proyecto de fortalecimiento institucional para Chile (fase XIII) y tomó nota con beneplácito de que el Gobierno de Chile comunicó los datos de ejecución del programa del país de 2018, 2019 y 2020 a la Secretaría del Fondo y los datos relativos al Artículo 7 a la Secretaría del Ozono, datos que indican que el país cumple con el Protocolo de Montreal. El Comité Ejecutivo tomó nota además de que el Gobierno de Chile ha adoptado medidas para eliminar el consumo de SAO; en particular, la aplicación de controles de las importaciones de HCFC mediante el sistema de licencias y cuotas, y la capacitación de funcionarios de aduanas y técnicos en refrigeración. El Comité Ejecutivo también tomó nota con beneplácito de las actividades iniciadas para facilitar la aplicación de la Enmienda de Kigali, incluido el establecimiento y la aplicación de un sistema de licencias de los HFC. El Comité Ejecutivo reconoció los esfuerzos del Gobierno de Chile y espera que, en los dos próximos años, el Gobierno de Chile continúe con la ejecución del plan de gestión de la eliminación de los HCFC y las actividades del proyecto de fortalecimiento institucional y logre y mantenga la reducción requerida del consumo de HCFC según el Protocolo de Montreal.

#### Pakistán

1. El Comité Ejecutivo examinó el informe presentado con la solicitud de renovación del proyecto de fortalecimiento institucional (fase XI) para Pakistán y tomó nota con beneplácito de la presentación oportuna de los datos de consumo de 2018 y 2019 tanto a la Secretaría del Ozono en virtud del Artículo 7 del Protocolo de Montreal como a la Secretaría del Fondo en el marco del informe de ejecución del programa de país, confirmando que el país cumple con el Protocolo de Montreal. El Comité también tomó nota de que el Gobierno de Pakistán seguía trabajando en estrecha colaboración con las partes interesadas para gestionar y supervisar el consumo de SAO y para mantener la eliminación de SAO conseguida. El Comité reconoció los esfuerzos del Gobierno y, por lo tanto, espera que Pakistán continúe con la ejecución oportuna y exitosa de las actividades del Protocolo de Montreal, incluida la finalización de la etapa II del plan de gestión de la eliminación de los HCFC, el inicio de la etapa III del plan de gestión de la eliminación de los HCFC, la continuación de las actividades de apoyo para la eliminación de los HFC y las actividades del proyecto de fortalecimiento institucional.



<u>87<sup>th</sup> Meeting of the Executive Committee of the Multilateral Fund</u> for the Implementation of the Montreal Protocol

(25 – 28 June 2021)

# UNDP 2021 WORK PROGRAMME

# **2021 WORK PROGRAMME**

# I. EXECUTIVE SUMMARY

The present document constitutes UNDP's 2021 Work Programme and is being submitted for consideration of the Executive Committee (ExCom) at its 87<sup>th</sup> Meeting. The list of submissions for all funding requests (including investment projects) that will be submitted by UNDP to the 87<sup>th</sup> ExCom meeting in Annex 1 to this document is provided for information. Project documentation such as multi-year agreements (MYA) tranche requests, investment and demonstration project proposals and other individual/investment proposals are not included in this document and are submitted separately as per normal practice. Only the following (non-investment) submissions are part of this document.

# II. FUNDING REQUESTS PART OF THE WORK PROGRAMME

# **Institutional Strengthening Extensions**

UNDP is submitting the requests for funding the extension of institutional strengthening projects to the 87<sup>th</sup> ExCom Meeting as tabulated below. Relevant terminal reports and requests for extension of funding are being submitted separately.

Country	Туре	Title	Duration (months)	Amount	Agency Fee	Total
Chile	INS	Institutional Strengthening Renewal (Phase XIV)	24	238,784	16,715	255,499
Pakistan	INS	Institutional Strengthening Renewal (Phase XI)	24	287,318	20,112	307,430
Total (2 reque	Total (2 requests)			526,102	36,827	562,929

# Preparation funding requests for HPMP stage III

UNDP is submitting the following funding requests for the preparation of stage III of HPMPs to the 87<sup>th</sup> ExCom meeting. The Annex 2 contains PRP submissions.

Country	Туре	Title	Duration (months)	Amount	Agency Fee	Total
India	PRP	Stage III HPMP Preparation (overarching)	18	30,000	2,100	32,100
India	PRP	Stage III HPMP Preparation (refrigeration)	18	150,000	10,500	160,500
India	PRP	Stage III HPMP Preparation (air-conditioning)	18	150,000	10,500	160,500
India	PRP	Stage III HPMP Preparation (firefighting)	18	60,000	4,200	64,200
Indonesia	PRP	Stage III HPMP Preparation (overarching)	18	90,000	6,300	96,300
Iran	PRP	Stage III HPMP Preparation (overarching)	24	25,000	1,750	26,750
Iran	PRP	Stage III HPMP Preparation (industrial RAC)	24	25,000	1,750	26,750
Malaysia	PRP	Stage III HPMP Preparation (overarching)	18	90,000	6,300	96,300
Total (8 requ	Total (8 requests)			620,000	43,400	663,400

# **Requests for funding for the preparation of HFC phase down plans**

UNDP is submitting the requests for the preparation of HFC phase down plans as per the table below. The request for the preparation of HFC phase down plan for Nigeria has been revised to include an additional cooperating agency and the revised version is being submitted. The

requests can be found in the Annex 3; the request for Eswatini will be submitted by UNEP in their role of a Lead Agency.

Country	Туре	Title	Duration (months)	Amount	Agency Fee	Total
Colombia	PRP	PRP for HFC phase-down plan	24	205,000	14,350	219,350
Dominican Republic	PRP	PRP for HFC phase-down plan	24	170,000	11,900	181,900
Eswatini	PRP	PRP for HFC phase-down plan	24	30,000	2,100	32,100
Nigeria	PRP	PRP for HFC phase-down plan	24	137,000	9,590	146,590
Panama	PRP	PRP for HFC phase-down plan	24	190,000	13,300	203,300
Paraguay	PRP	PRP for HFC phase-down plan	24	170,000	11,900	181,900
Sri Lanka	PRP	PRP for HFC phase-down plan (overarching)	24	135,000	9,450	144,450
Trinidad and Tobago	PRP	PRP for HFC phase-down plan	24	150,000	10,500	160,500
Total (8 reque	Sotal (8 requests)			1,187,000	83,090	1,270,090

# Requests for extensions of enabling activities to support the phase-down of HFCs for Article 5 countries

UNDP is submitting the requests for extension of the enabling activities as per the table below.

Country	Туре	Title	Extension Duration (months)	Reason for extending the duration
Belize	TAS	Request to extend the Enabling Activities for Kigali Amendment	12	The requested extension is required to accomplish the workplan set forth by the country. The activities are in progress. A review of the legal framework that will allow ratification of the Kigali Amendment is underway. Furthermore, a review of HFC consumption as well as the development of a national licensing system for HFCs is being performed. The strengthening of technical skills of RAC technicians have not been addressed mainly due to the COVID-19 pandemic. The country expects that as lockdown continute to be lifted, in-person consultation and activities will take place, allowing pending activities to be performed.
Haiti	TAS	Request to extend the Enabling Activities for Kigali Amendment	12	The extension is required due to the delays related to the COVID-19 pandemic. During the extension an update of the HFC consumption data will be undertaken as well as consultations with extended range of stakeholders considering the implications of the Kigali Amendment for climate change.
Moldova	TAS	Request to extend the Enabling Activities for Kigali Amendment	12	The project initiated its activities. However, due to COVID-19 and the late start the activities are being delayed. The main activities (legislative review, public and indusrty consultations, workshops) will be rolled out after the team is in place. The extension is needed to ensure enough time for a proper implementation of the project activities.
Total (3 red	quests)			

# III. SUMMARY OF FUNDING REQUESTS (WORK PROGRAMME)

The table below summarizes the funding requests for non-investment activities and proposals being submitted to the 87<sup>th</sup> ExCom Meeting as part of UNDP's Work Programme for 2021:

Country	Туре	Title	Duration (months)	Amount	Agency Fee	Total
Chile	INS	Institutional Strengthening Renewal (Phase XIV)	24	238,784	16,715	255,499
Colombia	PRP	PRP for HFC phase-down plan	24	205,000	14,350	219,350
Dominican Republic	PRP	PRP for HFC phase-down plan	24	170,000	11,900	181,900
Eswatini	PRP	PRP for HFC phase-down plan	24	30,000	2,100	32,100
India	PRP	Stage III HPMP Preparation (overarching)	18	30,000	2,100	32,100
India	PRP	Stage III HPMP Preparation (refrigeration)	18	150,000	10,500	160,500
India	PRP	Stage III HPMP Preparation (air-conditioning)	18	150,000	10,500	160,500
India	PRP	Stage III HPMP Preparation (firefighting)	18	60,000	4,200	64,200
Indonesia	PRP	Stage III HPMP Preparation (overarching)	18	90,000	6,300	96,300
Iran	PRP	Stage III HPMP Preparation (overarching)	24	25,000	1,750	26,750
Iran	PRP	Stage III HPMP Preparation (industrial RAC)	24	25,000	1,750	26,750
Malaysia	PRP	Stage III HPMP Preparation (overarching)	18	90,000	6,300	96,300
Nigeria	PRP	PRP for HFC phase-down plan	24	137,000	9,590	146,590
Pakistan	INS	Institutional Strengthening Renewal (Phase XI)	24	287,318	20,112	307,430
Panama	PRP	PRP for HFC phase-down plan	24	190,000	13,300	203,300
Paraguay	PRP	PRP for HFC phase-down plan	24	170,000	11,900	181,900
Sri Lanka	PRP	PRP for HFC phase-down plan (overarching)	24	135,000	9,450	144,450
Trinidad and Tobago	PRP	PRP for HFC phase-down plan	24	150,000	10,500	160,500
Total (18 requ	iests)			2,333,102	163,317	2,496,419

## ANNEX 1

# List of all UNDP submissions for funding to the 87<sup>th</sup> ExCom Meeting

No	Country	Туре	Description	Funding R	equest to the 8 (US\$)	7th ExCom
110	Country	Type	Description	Amount	Agency Fee	Total
1	Belize	INV	Stage II HPMP - 1st tranche	73,854	5,170	255,499
2	Chile	INS	Institutional Strengthening Renewal (Phase XIV)	238,784	16,715	255,499
3	Colombia	PRP	PRP for HFC phase-down plan	205,000	14,350	219,350
4	Dominican Republic	PRP	PRP for HFC phase-down plan	170,000	11,900	181,900
5	El Salvador	INV	Stage II HPMP - 1st tranche	169,000	11,830	180,830
6	Eswatini	PRP	PRP for HFC phase-down plan	30,000	2,100	32,100
7	Ghana	INV	Stage II HPMP - 1st tranche	713,135	49,919	763,054
8	India	PRP	Stage III HPMP Preparation (overarching)	30,000	2,100	32,100
9	India	PRP	Stage III HPMP Preparation (refrigeration)	150,000	10,500	160,500
10	India	PRP	Stage III HPMP Preparation (air-conditioning)	150,000	10,500	160,500
11	India	PRP	Stage III HPMP Preparation (firefighting)	60,000	4,200	64,200
12	Indonesia	PRP	Stage III HPMP Preparation (overarching)	90,000	6,300	96,300
13	Iran	PRP	Stage III HPMP Preparation (overarching)	25,000	1,750	26,750
14	Iran	PRP	Stage III HPMP Preparation (industrial RAC)	25,000	1,750	26,750
15	Malaysia	PRP	Stage III HPMP Preparation (overarching)	90,000	6,300	96,300
16	Nigeria	PRP	PRP for HFC phase-down plan	137,000	9,590	146,590
17	Pakistan	INS	Institutional Strengthening Renewal (Phase XI)	287,318	20,112	307,430
18	Panama	PRP	PRP for HFC phase-down plan	190,000	13,300	203,300
19	Paraguay	INV	Stage II HPMP - 1st tranche	255,724	17,901	273,625
20	Paraguay	PRP	PRP for HFC phase-down plan	170,000	11,900	181,900
21	Republic of Moldova	INV	Stage II HPMP - 1st tranche	147,500	10,325	157,825
22	Sri Lanka	PRP	PRP for HFC phase-down plan (overarching)	135,000	9,450	144,450
23	Trinidad and Tobago	PRP	PRP for HFC phase-down plan	150,000	10,500	160,500
Tota	al (23 requests)			3,692,315	258,462	4,127,252

Notes:

a. All amounts in are in US dollars.

b. Special reports due (delays, balances, status reports, etc.) as well as other projects not part of the WPA will be submitted separately.

# ANNEX 2

# **Requests for the preparation of stage III of HPMPs in:**

- 1. India
- 2. Indonesia
- 3. Iran
- 4. Malaysia

### MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HPMP STAGE-III PROJECT PREPARATION REQUEST FORM HPMP (OVERARCHING + INV)

# Part I: Project Information

Project title:	Project preparation for stage III of the HPMI	P/HCFC phase-out investment			
	Activities	-			
Country:	India				
Lead implementing agency:	UNDP				
Cooperating agency (1):	UNEP				
Cooperating agency (2):	Other (Bilateral), specify.	Government of Germany			
Implementation period:	18 months				
Funding requested:					
Agency	Sector	Funding requested (US \$) *			
UNDP	Overarching	30,000			
UNEP	Overarching	20,000			
Other (Bilateral)	Overarching	40,000			
UNDP	INV - REF	150,000			
UNDP	INV - AC				
UNDP	INV- Firefighting	60,000			
	Total 450,000				

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government specifying roles of	$\boxtimes$	
	respective agencies (where more than one IA is involved)		
2.	Written confirmation – balances from previous PRP funding approved for	$\boxtimes$	
	stage I HPMP had been returned / will be returned (decision 71/42(i))		
	• Specify meeting at which PRP funding balance had been returned/will	82nd meeting	
	be returned		

## A. Information required to support PRP funding (Overarching strategy)

1. Montreal Protocol compliance target to be met in □ stage II / ⊠ stage III of the HPMP						
Phase-out 100%		Year of commitment	2030			
commitment (%)	(with a					
	servicing					
	tail in line					
	with the					
	<b>Protocol</b> )					
□ Servicing only		□ Manufacturing only	⊠ Servicing and ma	nufacturing		
2. Brief background	on previous s	stage of the HPMP (i.e., when the	ne HPMP was approved;	; a description of		
the progress in imp	lementation of	f the previous stage of the HPMP	to demonstrate that sub	stantial progress		
had been made.)						
The Executive Committ	ee (Ex-Com)	of the Multilateral Fund (MLF),	vide decision 77/43, app	proved the Stage		
II of the HPMP to supp	ort India to acl	nieve complete phase-out of use	of HCFC-141b in foam	manufacturing		
by1 January 2020. In th	e air-condition	ning sector, India will converting	10 AC manufacturing 1	ines from		
HCFC-22 to HFC-32in	six (6) air-con	ditioning manufacturing enterpri	ises, that are participatin	g in the HPMP		
Stage-II, by. The quanti	ty of HCFC-2	2 to be phased out of HCFC-22 v	will be 1,140 MT, in add	lition, 1,250 MT		
		hrough activities in the servicing				
		Stage II of HPMP for India will				
levels by 60% of the bas		0		puon		
	levels by 6676 of the busefine level by 2625.					
3. Current progress	in implement	ation of previous stage of the H	IPMP			
Activity		Description		Implementing		
				agency		

Legal/regulatory	(Completed) Ozone Depleting Substances (Regulation and Control)	UNDP
framework	Rules have been amended prohibiting the import of pure HCFC-	UNDI
II diffe work	141b (or contained in pre-blended polyols/fully formulated	
	systems) in the country from 1 January 2020.	
Manufacturing-Foam	(On-going) 160 foam manufacturing enterprises were verified and	UNDP
PU	are participating in HPMP Stage-II out of which 100 projects have	UNDI
10	been fully completed, including on-site third-party verification.	
	Remaining 60 companies are in advanced stage of conversion	
	and/or claimed completion and will be subject of third-party	
	verification to formally complete the project. Financial	
	disbursements to the companies upon conversion performance are	
	being conducted.	
Manufacturing-AC	(On-going) 3 out of 6 enterprises have completed the conversion	UNDP
e	activities and on-site third-party verification was carried out. ICC-	
	related disbursements to these had been completed. Assistance to	
	remaining 3 companies is being delivered to complete the	
	remaining activities in time	
Refrigeration	GIZ, Government of Germany is implementing the servicing sector	Other
servicing sector	activities. 60 trainers have been trained through the train-the-	(Bilateral)
	trainer programmes. The 15 training partners in the country have	
	been equipped with equipment and tools for conducting practical	
	training. About 7500 RAC service technicians have been trained.	
	Draft concept developed for national certification system for RAC	
	technicians and discussed in stakeholder consultative workshop.	
	All the planned activities will be completed in time	
Others, specify.	Ten Workshops have been organized for the customs and	UNEP
	enforcement personnel. In preparation for enforcing import ban on	
	HCFC 141b starting 1.1.2020, a special module was introduced in	
	customs trainings. Five studies relating to promotion of non-ODS	
	and low GWP alternatives have been commissioned, which will be	
	completed and published by mid-2021. All the planned activities	
0.1	will be completed in time.	LNIDD
Others, specify.	(On-going) The PMU component of HPMP Stage-II inter alia	UNDP
	includes project management, coordination amongst stakeholders	
	and implementing agencies and Government, monitoring and	
	verification of progress of implementation by the enterprise at	
	sectoral level, technical assistance etc. These activities are being implemented as per plan.	
L	implementeu as per plan.	

4. Overview of current HCFC consumption in metric tonnes by substance (last three years)						
Substance	Sector	2017	2018	2019		
HCFC-22	Manufacturing-REF/AC	4,125.86	4,372.18	3,995.37		
HCFC-22	RAC servicing	4,969.78	5,266.48	5,693.42		
HCFC-22	Manufacturing-Foam PU	281.31	298.10	299.65		
HCFC-123	RAC servicing	207.84	67.55	116.18		
HCFC-123	Other, specify.(Fire fighting)	45.62	14.83	61.50		
HCFC-141b	Manufacturing-Foam PU	2,298.89	2,871.29	3,394.18		
HCFC-141b	Other, specify. (Aerosol)	25.26	25.00	20.00		
HCFC-141b	Manufacturing-REF	126.31	-	-		
HCFC-141b	Solvent	75.79	-	-		
HCFC-142b	Manufacturing-Foam PU	27.60	-	-		
HCFC-142b	RAC servicing	92.40	-	-		
	Total	12,276.66	12,915.43	13,580.30		
use HCFCs in the country, including a short analysis and explanation of the consumption trends (i.e.,						
increasing or decreasing)						
The consumption of H	CFC 22 in the refrigeration and air cond	itioning manufac	turing sector has	s shown		

consistent decline in last few years. The rate of decline is gradual. The HCFC-22 consumption in the Servicing Sector, conversely, has been relatively maintained at the same level possibly due to the deployment of continues quantities of HCFC-22 based units to cope with hot weather demands, as this sector not only depends on the installed base of RAC equipment, but also the new equipment that enter the market over and increases the inventory of the installed base ( The servicing requirement for existing equipment also increases as the increase in new equipment continues) These have a direct impact on the HCFC-22 demand for servicing. The continued and increase number of hot days during the year is also a factor that demand more servicing in the equipment since their usage is increased.

Information needed	Description		Agency	
Updated data on HCFC	The previous survey was carried out in		UNDP	
consumption in	2014-15 and the information needs to be	e	UNEP	
manufacturing/servicing sector	updated.	Ot	her (Bilateral)	
Analysis of the types of	To be assessed in terms of eligibility and	d	UNDP	
equipment using HCFCs	modifications required for adoption of alternative non-HCFC and low GWP technology		her (Bilateral)	
New information on ODS regulations	Review current baseline regulations, analyze best practices and lessons learned on compliance of participating enterprise with respect to ODS Regulation and Control Rules and potentially propose revised or new mechanism to improve the legal framework.	es	UNDP UNEP	
Updated sectoral consumption	Carry on bottom-up surveys and		UNDP	
enterprise-level data collection for sub- sector not covered in the earlier PRP stages that would be assisted under the Stage III with investment and non- investment projects		Ot	UNEP Other (Bilateral)	
Others, specify.	Carry on proper consultations with		UNDP	
	stakeholders, validate results of the		UNEP	
	surveys and the PRP process, draft the updated over-arching strategy, investme projects and sector plans, endorse strategies with stakeholders, obtain approvals from institutions responsible for the MP framework in country, translate HPMP-III, submit document to ExCom and follow up negotiation and approval process.	ent	her (Bilateral)	
7. Activities to be undertake	n for project preparation and fundi	ng		
Α	ctivity	Agency	USD	
Stakeholders Consultations, data	collection		10,000	
Meetings and mission costs			7,500	
Collation, compilation and analy	sis of information	UNDP	5,000	
Draft overarching strategy, const	ultation, review and submission		5,000	
Validation workshop			2,500	
	Subtotal		30,000	
Stakeholders Consultations, data			20,000	
Draft sector plan, validation of d		GIZ	20,000	
	Subtotal		40,000	
Stakeholders Consultations, data			10,000	
Draft sector plan and validation		UNEP	10,000	
Dian sector plan and valuation	Subtotal	UTILI	20,000	

The overarching strategy will focus on the HCFC phase-out, however the Government of India has consciously chosen a low carbon growth path while undertaking technology transition under HPMP Stage-II. All the participating enterprises, have moved to low global warming potential alternatives. The strategy will also support, at the possible extent given the MLF guidelines, to raise awareness of stakeholders on the Kigali Amendment and its future obligations and the relationship with the reduction of HCFCs, focussing on low GWP alternatives.

**9. How will the Multilateral Fund gender policy be considered during project preparation?** In line with the decision 84/92, the operational policy on gender mainstreaming would be applied wherever feasible in the preparation of HPMP Stage-III including in the following activities (a) Encouraging participation in the awareness workshops/stakeholder consultative meetings organized as part of HPMP Stage-III preparation. (b) Promoting training and awareness campaigns to develop staff competency and awareness on gender mainstreaming. (c) Discussing gender issues during the workshops to share experiences and lessons learned on gender mainstreaming.

# B. Information required for PRP funding request for investment projects as part of the HPMP – REFRIGERATION MANUFACTURING SECTOR

1. Agency:			UNDP			
2. Sector:			Refrigeration			
		in item #2 reported mme (CP) data?⊠ Yes, please specify reported amount and year: 3995.38 MT – 2019 (REF and AC)			ount and year:	
4. Information	4. Information on remaining eligible consumption					
Substance			Remaining eligible consumption (ODP tonnes)			
	HCFC-22			439.29		
			About 57% of th	e annual consumption is ac	counted for servicing	
Others, specify.	. (H	ICFC 124)		13.50		
Others, specify.	. (F	ICFC 123)		3.50		
5. Information	on enterprise(	s) for which fundi	ng is being sought	ţ		
Enterprise	Year	HCFC consumption (ODP tonnes) (last three			HCFC phase-out	
	established	years)			to be achieved	
		2017	2018	2019		

As per the market survey conducted under the HPMP-II preparation, supported by the Industry Associations, there are about 316 enterprises using HCFC-22 in the Refrigeration sectors, comprising 34 large, 28 medium, and 254 small-sized enterprises. (ExCom/77/49). The detailed enterprise wise information will be available after conducting a survey and collecting updated information regarding HCFC consumption, baseline equipment, etc.

As submitted in the Stage II, the strategy to achieve the reductions under the Stage II was 60% of the baseline, which also has been reflected in the HPMP Stage-II agreement. Refrigeration manufacturing sector is very large in terms of sub sectors, it involves variety of equipment manufactured, including, , display cabinets, freezers. Ice-candy machine, milk chilling, other dairy product processing equipment, fish/meat processing, cold rooms etc. The manufacturers in these sub sectors are mainly in MSME sector which are having small consumption but spread all over the country. It would require extraordinary efforts for updating information that is available from 2015 survey. It would take lot of efforts, among other factors, as not all companies could be fully assessed to obtain the granular data required to properly design each investment project.

Therefore, the funding being requested, in line with Decision 71/42, is critical to improve and extend the bottom up assessment of each company, re-confirm eligibility, update HCFCs usage data until the year 2020/2021, collect granular information required to design sound investment projects, compile aggregated information and design an updated and effective Refrigeration Manufacturing Sector Plan, validate the Sector Plan with stakeholders and submit it along the HPMP-III Over-arching strategy

In addition, there are a number of refrigeration compressor SME manufacturers, which are to be identified and addressed in this stage

6. Activities to be undertaken for preparation of the investment project and funding requested					
Activity	Indicative funding (US \$)				
Carry out sectoral survey for getting enterprise wise information comprising consumption, baseline equipment, etc.	70,000				

Organise stakeholder consultative workshops with industry for creating awareness on	40,000
eligibility for participation in HPMP, the funding guidelines and on alternative	
technologies. Workshops will be conducted for refrigeration enterprises manufacturing	
various kinds of equipment such as cold chain equipment, food processing equipment	
including ice-candy machines, etc., and air-	
Compilation and analysis of survey information Includes data validation with	30,000
respect to information available with Ozone Cell and seeking further clarifications	
wherever needed from the enterprises	
Preparation of draft Sector Plan and Investment Projects - Includes expenditure for	10,000
discussing the draft sector plan with industry and other stakeholders. Small group	
physical meetings will be organised wherever needed.	
Finalisation of HPMP Stage-III and submission after seeking required approvals from	
the Government	
TOTAL	150,000

# C. Information required for PRP funding request for investment projects as part of the HPMP – AIR CONDITIONING MANUFACTURING SECTOR

2 Sector:	1. Agency: UNDP				
2. Sector:			Air-condition	ning	
3. HCFC consumption in item #2 reported under country programme (CP) data?				pecify reported ame (019 (REF and AC)	
4. Information	on remaining	eligible consumpti	ion		
	Substance		Remaining e	eligible consumption	on (ODP tonnes)
	HCFC-22			439.29	
Others, an esifer	(1	(CEC 124)	About 57% of the	annual consumption is a	accounted for servicing
Others, specify. Others, specify.		ICFC 124) ICFC 123)		<u>13.50</u> 3.50	
		s) for which fundi	ng is heing sough		
Enterprise	Year		nption (ODP tonr		HCFC phase-out
Enterprise	established	ii ei e combui	years)	ies) (iuse enree	to be achieved
		2017	2018	2019	
consumption. Of were non-Article The HPMP-II ha production from I The enterprise wi regarding HCFC 2014-15 needs up Therefore, the fun up assessment of collect granular in design an update stakeholders and <b>IN ADDITION</b> <b>CONDITIONIN</b> <b>IDENTIFIED AN</b> <b>II SURVEY AN</b>	he market survey conducted under the HPMP-II preparation, supported by the Industry Associations, manufacturing sector had approximately 37 enterprises that manufacture about 4.5 million AC units in 2014, with room air-conditioning units accounting for approximately 77 per cent of the sector ption. Of the 37 enterprises, approximately 20 enterprises were large-sized enterprises, six of which n-Article 5 owned. There were also approximately 22 SMEs in the market (ExCom/77/49). MP-II has supported six room air conditioning manufacturers, article 5 owned, to convert their on from HCFC-22 to HFC-32. erprise wise information will be available after conducting a survey and collecting updated information g HCFC consumption, baseline equipment, etc. The information from the last survey conducted in				

Organise stakeholder consultative workshops with industry for creating awareness on	20,000
eligibility for participation in HPMP, the funding guidelines and on alternative	20,000
technologies	
Workshops will be conducted air-conditioning enterprises manufacturing various kinds	
of equipment such as room and commercial ACs, small and medium size chillers, etc.	
Compilation and analysis of survey information	20,000
Preparation of draft Sector Plan and Investment Projects - Includes expenditure for	10,000
discussing the draft sector plan with industry and other stakeholders. Small group	
physical meetings will be organised wherever needed	
Finalisation of HPMP Stage-III and submission after seeking required approvals from	-
the Government	
TOTAL	90,000

# D. Information required for PRP funding request for investment projects as part of the HPMP FIRE FIGHTING MANUFACTURING SECTOR

1. Agency:			UNDP			
2. Sector:	•		Fire Fighting			
3. HCFC consumption in item #2			$\boxtimes$ Yes, please specify reported amount and year:			
		try programme	⊠ <b>Yes</b> , pleas	61.50 - 2019	amount and year:	
(CP) dat		try programme		01.30 - 2019		
		ing eligible consu	motion			
<b>4.</b> III01111a	Substance	ing engible consu		ligible consumptio	on (ODP tonnos)	
Others, specify.		ICFC 123)	Kemaning e	<u>agible consumption</u> 3.50	on (ODI tonnes)	
		/	unding is being so	2.2.2		
Enterprise	Year		nption (ODP tonn		HCFC phase-out	
Enterprise	established	HCFC consu	years)	es) (last tillee	to be achieved	
	establisheu	2017	2018	2019		
					a blend component	
			49). Two enterprise			
			ation will be availa		g a survey and	
			sumption, baseline			
	Although the consumption of HCFCs in this sector is low, but is used in variety of applications especially					
					ABC powder or water	
		se sectors are likely	y to be spread acros	ss the country, a su	rvey and stakeholder	
consultations will						
					hat entail the detailed	
					f investment projects.	
			anies that are eligib			
			however further de			
			technologies can o	only be obtained the	rough the	
		nding is being requ				
6. Activitie	es to be underta		ion of the investme	ent project and fu	nding requested	
		Activity		In	dicative funding (US	
					\$)	
			information comp	rising	25,000	
consumption, bas						
			ndustry for creating		20,000	
	participation in	HPMP, the funding	guidelines and on	alternative		
technologies						
Compilation and					10,000	
1		nd Investment Proj	/		5,000	
		nd submission afte	r seeking required a	approvals	-	
from the Governme	nent					
TOTAL					60,000	
				·		

#### MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HPMP PROJECT PREPARATION REQUEST FORM HCFC PHASE-OUT MANAGEMENT PLAN (OVERARCHING STRATEGY)

# **Part I: Project Information**

Project title:	Preparation of Stage	III of the HCFCs Phase-out Management
	Plan	
Country:	Indonesia	
Lead implementing	UNDP	
agency:		
Cooperating agency	(select)	Click or tap here to enter text.
(1):		
Implementation	18 months	
period:		
Funding requested:		
Agency	Sector	Funding requested (US \$)*
UNDP	Overarching	90,000

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government specifying roles	$\boxtimes$	
	of respective agencies (where more than one IA is involved)		
2.	Written confirmation – balances from previous PRP funding	$\boxtimes$	
	approved for stage I HPMP had been returned / will be		
	returned (decision 71/42(i))		
	• Specify meeting at which PRP funding balance had been		ExCom
	returned/will be returned		

# A. Information required to support PRP funding (Overarching strategy)

1. Montreal Protocol compliance target to be met in □ stage II / ⊠ stage III of the HPMP							
Phase-out commitment (%)	100% (with a servicing tail in line with the Protocol)	Year of commitment	2030				
Servicing only		□ Manufacturing only	Servicing and manufacturing				
		<b>ious stage of the HPMP</b> (i.e. vious stage of the HPMP to demonstrate th	, when the HPMP was approved; a description of at substantial progress had been made.)				

- 1. The HPMP of Indonesia (Stage I) was approved at the 64<sup>th</sup> Meeting of the Executive Committee in July 2011 at a total funding level of US\$ 12,692,684, plus agency support costs of US\$ 968,452 for the period of 2011 to 2018 to reduce HCFC consumption by 20% of the baseline.
- 2. The 76<sup>th</sup> ExCom has considered an issue related to the RAC sector when 12 enterprises in the refrigeration sector (with a total consumption of 38 mt (2.09 ODP tonnes)) and 16 enterprises in the air-conditioning sector (with a total consumption of 233.27 mt (12.83 ODP tonnes)) requested to be removed from the HPMP as they decided to convert to high-GWP refrigerants without funding from the Multilateral Fund.
- **3.** Further, Intersessional Process of the 85<sup>th</sup> ExCom also considered the additional challenges on RAC sector conversion when, by the time, additional 11 companies under the refrigeration manufacturing sector requested to be removed from the Stage I as they decided to convert to high-GWP refrigerants without funding from the Multilateral Fund.
- 4. Decision 81/49 has decided to return of US \$35,000, plus agency support costs of US \$2,450 for the World Bank, associated with the withdrawal of the foam enterprise CV Laksana Teknik Makmur, because it has been converted to plastics product.
- 5. As per decision 83/22, PT. TSG Chemical had decided to withdraw from stage I of the HPMP and that US \$301,539, plus agency support costs of US \$22,615 for the World Bank, associated with the enterprise had already been returned at the 83rd meeting.
- 6. The Stage 1 of the HPMP has been completed on 31 December 2020, and the relevant Final Report and Project Completion Reports are to be submitted to the ExCom no later than 30 June 2021 (IAP Decision 85/XX).
- 7. Finally, The Executive Committee approved HPMP Stage II for Indonesia in the 76<sup>th</sup> Meeting in May 2016 with a total funding level of US\$ 8,883,314 for the period of 2016 to 2023 to reduce HCFC consumption by 55% from the baseline. In Stage-II, Indonesia is focusing on the phase-out of HCFCs in RAC servicing and fire-fighting sectors and the remaining PU foam sectors. The total phase-out of HCFC-22 in servicing sector will be 41,63 ODP tonnes and HCFC-141b in foam sector will be 42,70 ODP tonnes.

3. Current pro	gress in ii	nplementation o	of previous sta	ge of the HPMP	
Activity			Implementing		
<b>.</b>			agency		
Legal/regulatory framework		(Completed) Mandat RAC equipment			UNDP
Legal/regulatory framework		(On-going) Ban on in contained in imported January 2022 due to	d pre-blended polyo		World Bank
Others, specify.		of HCFC-123 used for Activity planned for to COVID-19 pander	or production of fire 2020, but actions w mic.	ere put on hold due	UNDP
Manufacturing-F	Foam PU	(Completed) Convers Stage I had been com System Houses unde 2020;	pleted in 2018 and r HPMP Stage II ha	conversion of 2 d been completed in	World Bank
Manufacturing-F		completed their techn (On-going) The conv companies are still on 2021.	nology conversion is rersion of 2 remaining ngoing and expected	ng medium sized 1 to complete in	World Bank
Manufacturing-F	Foam PU	(On-going) The Con- being developed by i This conversion is co- end 2022.	nvolving support fr	om System House.	World Bank
Refrigeration ser sector	vicing	474 of 700 Custom C	UNDP		
Refrigeration ser sector	vicing	25 of 90 trainers has	UNDP		
Refrigeration ser sector	vicing	549 of 2,000 technici	UNDP		
Refrigeration ser	vicing	287 of 1,000 units tra delivered	UNDP		
Refrigeration ser	vicing	2 RAC training equip training equipment is	UNDP		
Refrigeration ser	vicing	1 reclaim centers is b	UNDP		
Refrigeration ser sector	vicing	50 RAC tool kits delivered to service shops			UNDP
Refrigeration ser	vicing	832 of 1,000 people a and alternative technol	UNDP		
Others, specify.		(On-going) cont monitoring supp and consultants.	UNDP		
4. Overview of years)	current l	HCFC consumpt	tion in metric	tonnes by subst	ance (last three
Substance	Sector		2017	2018	2019
HCFC-22	RAC	C servicing	3,171	3,114.31	2,993.63
HCFC-141b	HCFC-141b Manufa		570	560	440
HCFC-142b	RAC	C servicing	6.41	8,2	6.41
HCFC-123		er, specify.	51.99	43.14	49.54
HCFC-123		C servicing	58.01	56.78	56.98
HCFC-225ca		Solvent	1	2	2

All	Exports - All	0	0	0
All	TOTAL	3,954.41	3,873.93	3,684.31

5. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HCFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The HCFCs consumption in Indonesia has shown consistent and gradual decrease as direct results from GOV enforcement activities, institutional support and the investment and non-investment projects implemented under the Stage II of the HPMP.

As agreed in the Stage I, the ban on the use of HCFC-22 in manufacturing sector has been successfully implemented, for this reason the only manufacturing servicing still with remaining consumption is the PU Foam (HCFC-141b). Other than that, large share of HCFCs consumption is under servicing sector with a minimal consumption in the solvent sector. It is also important to note the use of HFC-123 in the fire-fighting sector that has show a steady consumption to cope with the national demand.

It is expected that the consumption will continue to decrease with the compliance target of 2020 and the gradual reduction steps required to fulfill the commitments of the Stage II of the HPMP by 2022.

6.	Description of information that needs to be gathered and updated. Explain why this	
	has not been undertaken during preparation for the previous stage of the HPMP.	

Information needed	Description	Agency
Updated data on HCFC consumption in	Review data and cross-check "bottom-up" information gathered in the past Country Programmes	UNDP
manufacturing/servicing sector		
Updated sectoral consumption information	Assess granular data per sub-sector/application since the Stage II preparation (2014/2015) and better assess downstream trends.	UNDP
Analysis of types of equipmentt using HCFCs	Update current market profile and trends of use of HCFCs- based equipment	UNDP
New information on ODS regulations	Review current regulatory framework and carry on a holistic assessment on their effectiveness to better capture lessons learned and identify potential remaining barriers to be removed.	UNDP
Others, specify.	Carry on proper consultations with stakeholders, validate results of the surveys and the PRP process, draft the updated over-arching strategy and the RAC servicing sector plan, endorse strategies with stakeholders, obtain approvals from institutions responsible for the MP framework in country, translate HPMP-III, submit document to ExCom and follow up negotiation and approval process.	UNDP
Activity	Indicative funding (US \$)	Agonov
Update HCFCs downstream data.	10,000	Agency UNDP
Assess HCFCs and HCFCs-based equipment market	25,000	UNDP
Review Institutional and Regulatory baselines	10,000	UNDP
Carry on Gender Assessment	7,500	UNDP
Carry on Stakeholders Meetings (including missions)	22,500	UNDP
Sundry (draft and translations, printed materials)	15,000	UNDP
TOTAL	90,00	0

# 8. How will activities related to implementation of the Kigali Amendment to phase down HFCs be considered during project preparation stage II of the HPMP?

The overarching strategy will focus on the HCFC phase-out, however the Government of Indonesia is keen in promoting ozone-friendly, climate-friendly and energy-efficient technologies to the extent that this is possible within the current guidelines and available funding under the Stage II. The strategy will also support, at the possible extent given the MLF guidelines, to raise awareness of stakeholders on the Kigali Amendment and its future obligations and the relationship with the reduction of HCFC in parallel to the Enabling Activities Project carried out by the World Bank.

# 9. How will the Multilateral Fund gender policy be considered during project preparation?

During the project preparation, gender considerations and actions on gender mainstreaming will be assessed and a proper Gender Management Plan is to be included in the HPMP-III Over-arching strategy: The following actions are expected to be carried in the preparation phase:

• To collect data to produce gender-disaggregated indicators

• Look into introduction of gender considerations when designing components and activities o (presentation of sex-disaggregated data and visuals of women and men where applicable);

• To establish a baseline of women technicians in R&AC sector and compare it with the number of women involved in NOU R&AC activities.

.• To incorporate gender aspects in the recruitment of staff for the PRP (emphasizing that female candidates are welcome and encouraged to apply)

• Assurance that consultants and project personnel have the required gender competence to reflect on progress and challenges related to gender.

• Draft a Gender Management Plan to be supported as part of the HPMP-III overarching strategy

#### MULTILATERAL FUND FOR THE **IMPLEMENTATION OF THE MONTREAL PROTOCOL** HPMP PROJECT PREPARATION REQUEST FORM HPMP (OVERARCHING + INV)

## **Part I: Project Information**

Project title:	HPMP Stage III				
Country:	Islamic Republic of Iran				
Lead implementing agency:	UNDP				
<b>Cooperating agency (1):</b>	UNIDO				
<b>Cooperating agency (1):</b>	UNEP				
<b>Cooperating agency (1):</b>	Other (Bilateral), specify.	Government of Germany			
Implementation period:	24 Months				
Funding requested:	Funding requested:				
Agency	Sector	Funding requested (US \$)*			
UNDP	Overarching	25,000.00 USD			
UNIDO	Overarching	15,000.00 USD			
UNEP	Overarching	15,000.00 USD			
Other (Bilateral)	Overarching	15,000.00 USD			
UNDP	INV - REF	25,000.00 USD			
INUDO		50 000 00 LICD			
UNIDO	INV - AC	50,000.00 USD			

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government specifying roles of	$\boxtimes$	
	respective agencies (where more than one IA is involved)		
2.	Written confirmation – balances from previous PRP funding approved for	$\boxtimes$	
	stage I HPMP had been returned / will be returned (decision 71/42(i))		
	• Specify meeting at which PRP funding balance had been returned/will	82nd	ExCom
	be returned		

#### A. Information required to support PRP funding (Overarching strategy)

1. Montreal Protocol comp	1. Montreal Protocol compliance target to be met in □ stage II / ⊠ stage III of the HPMP					
Phase-out commitment (%)	100% (with a servicing tail in line with the	Year of commitment	2030			
□ Servicing only	Protocol)	□ Manufacturing only	Servicing and manufacturing			
the progress in implement had been made.) The 77 <sup>th</sup> meeting of the ExCon Iran to HPMP will phase-out consumption by 2023 taking r	m has appro 162.37 ODP tote of the appropriate of the appropriate of the appropriate approximate of the appr	ved stage II of the HCFC pha tonnes of HCFCs to meet th pproach taken for the refriger	he HPMP was approved; a description of to demonstrate that substantial progress ase-out management plan (HPMP) for the 75 per cent reduction in HCFC ration and air-conditioning special circumstances in the country.			
<ul> <li>US \$ 700,000, plus</li> <li>US \$2,103,205, plus</li> <li>US \$2,672,404, plus</li> </ul>	agency supp agency supp agency supp agency supp	bort costs of US \$343,375 for bort costs of US \$87,000 for bort costs of US \$147,224 for	r UNDP, UNEP, r UNIDO, r the Government of Germany, and			

• US \$ 907,207, plus agency support costs of US \$109,793 for the Government of Italy;

	elementation of previous stage			Implementing		
Activity	Des	Description				
Manufacturing-Foam PU	Equipment delivered for c	onversion of one	system house	agency UNDP		
e	to introduce pre-blended p					
Manufacturing-Foam PU	Conversion of 3 enterprise			UNDP		
	procured and delivery in p					
Manufacturing-Foam PU	Introduction of water-blow			UNDP		
	companies converted, 35 c					
	conversion with 3rd and 4					
Manufacturing-Foam PU	Conversion of 7 enterprise			UNIDO		
	Conversion of 2 enterprise specifications for conversi					
	on-going		procurement			
Manufacturing-Foam PU	Conversion of 2 Sprayfoar	m enterprises <sup>.</sup> Te	chnical	Other		
	assistance to Spray compa			(Bilateral)		
Manufacturing-Foam PU	Introduction of water-blow			Other		
C	technical assistance initiat			(Bilateral)		
	going)	-				
Manufacturing-Foam PU	Technical assistance to 95			Other		
	water-blown systems: one		verted and 17	(Bilateral)		
	companies trained. (on-go	ing)				
Others, specify.	Conversion kits for low-G	WP alternatives t	to 48	UNDP		
Assembling Sector	assembling companies: 15	companies conv	erted under			
	1st tranche, 10 companies	under conversior	n under 2nd			
	Tranche; technical specs d	lefined for 15 con	npanies under			
	3rd tranche (on-going)			UNDP		
Others, specify. Assembli		Establish two (2) Refrigerant distribution systems,				
Sector	including industrial recover					
	one (1) Operator selected					
	in 2021; one (1) additional selected, technical specific					
	designed (on-going)	anons of equipm	ient being			
Others, specify. Assembli		mpanies: 1) train	ing materials	Other		
Sector	for CO2 and other refriger			(Bilateral)		
	lab testing Island case in E					
	in EU5) Gap analysis stan					
	of 8 companies, TA UND					
	capacity building reusable					
	servicing coordination 9)					
	CO2 units, preparation of		h high tech			
	controlsother: several web		DTTLLC	UNEP		
Refrigeration servicing sector		Webinar workshop for master trainiers of SRTTU for "National curriculum update to introduce new long-term				
	alternatives to HCFCs" wi					
	Webinar workshop for cus					
	training institutes all over					
	profiling;- Webinar works					
	certification programme;-					
	translated ISO 5149-1 star					
	activities;- Project monitor	ring; (on-going)		UNIDO		
Refrigeration servicing sector		Equipment for technician training and multi-refrigerant identifiers delivered (completed)				
Others, specify. PM	U Continuous support to HF		tation (on-	UNDP		
	going)	1 1 4		L		
	CFC consumption in metric to					
Substance	Sector	2017	2018	2019		
LICEC 22	ngonutootumno ULL	852	601			
HCFC-22 HCFC-141b	Manufacturing-REF Manufacturing-Foam PU	1,024	691 576	404		

HCFC-22	RAC servicing	1,234.19	1,090	636
TOTAL	ALL	3,110.19	2,357	1090.88

5. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HCFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

It is noted the actions committed by the Government of Iran under the framework of the Stage II:

(i) To reduce HCFC consumption by 75 per cent of the baseline by 2023;

(ii) To issue a ban on the import and use of HCFC-141b pure or contained in pre-blended polyols upon the completion of the conversion of all the eligible enterprises and no later than 1 July 2023;

(iii) To issue a ban on new manufacturing capacity using HCFC-22 by 1 January 2020;

(iv) Further to issue a ban on the use of HCFC-22 in the manufacturing of refrigeration and airconditioning equipment upon completion

Following the legal actions aligned with the activities under the HPMP-II:

- The consumption of HCFC-22 and HCFC-141b in the manufacturing sector has showed a consistent decrease as result of the T.A. and investment projects and in preparation for the sector bans to be implemented.
- The consumption of HCFC-22 in the servicing sector also showed a consistent decrease in demand.

In the servicing sector, However, it is believed that this trend is not only due to the activities under the HPMP-II, but is also direct reflection of current economic challenges faced by Iran. And though then 2020 data is not yet available, it is believed that COVID-19 had also deeply impacted the economical activity and the actions in the servicing sector. Once these barriers are overcome it might be expected that a repressed demand could put pressure on the Iranian control system and require effective actions under the HPMP-II.

The economical situation also played important role to allow assembling and manufacturing companies to carry on fast conversion as per lower temporary demand of products allowed time and human resources to be diverted for conversion. It is also important to mention geopolitical issues, including sanctions, led some companies to become active or inactive for different periods of time to reduce their operational costs during shortage of HCFCs or other raw materials/supplies.

Therefore, the Stage III will likely rely mostly in the activities in servicing sector and the possibility of repressed demand of HCFCs once economic situation improves and COVID-19 pandemic subsides.

undertaken during preparation for the previous stage of the HPMP.				
Information needed	Description	Agency		
Updated data on HCFC	Review data and cross-check "bottom-up" information	UNDP		
consumption in	gathered in the past Country Programmes. Update current			
manufacturing/servicing sector	market profile and trends of use of HCFCs-based equipment			
Updated sectoral consumption	Assess granular data per sub-sector/application since the	UNDP		
information	Stage II preparation (2014/2015) and better assess	UNIDO		
	downstream trends and support development of sub-	Bilateral		
	sector and end-user driven activities for the Sector Plan.			
New information on ODS	Review current regulatory framework and carry on a	UNEP		
regulations	holistic assessment on their effectiveness to better			
	capture lessons learned and identify potential remaining			
	barriers to be removed and updated training capabilities.			
Others, specify.	Carry on proper consultations with stakeholders, validate	UNDP		
	results of the surveys and the PRP process, draft the			
	updated over-arching strategy and the RAC servicing			
	sector plan, endorse strategies with stakeholders, obtain			
	approvals from institutions responsible for the MP			
	framework in country, translate HPMP-III, submit			
	document to ExCom and follow up negotiation and			
	approval process.			

6.	6. Description of information that needs to be gathered and updated. Explain why this has not been					
	undertaken during preparation for the previous stage of the HPMP.					
	Information needed	Description	Agonov			

7. Activities to be undertaken for project preparation	Ū	
Activity	Indicative	Agency
	funding (US \$)	
Constituting the PRP development and oversight team	10,000.00	UNDP
(recruitment of national and international experts)		
Conducting needs assessment gaps analysis and compiling Agencies sectors	5,000.00	UNDP
data		
Consultation meetings for stakeholders and coordination among agencies	5,000.00	UNDP
and their field work experts		
Draft document preparation, translation, national validation and submission	5,000.00	UNDP
Subtotal	25,000.00	UNDP
Constituting the national PRP sector team (recruitment of national expert)	10,000.00	UNIDO
for data collection		
Consultations and industry interaction (sector-level workshops)	5,000.00	UNIDO
Subtotal	15,000.00	UNIDO
Constituting the national PRP sector team (recruitment of national expert) for data collection	10,000.00	Bilateral
Consultations and industry interaction (sector-level workshops)	5,000.00	Bilateral
Subtotal	15,000.00	Bilateral
Assessment of regulatory and training baselines	10,000.00	UNEP
Consultation meetings with stakeholders (meetings with government	5,000.00	UNEP
agencies for policy review and meetings with industry representatives for		
sector-level approaches)		
Subtotal	15,000.00	UNEP
TOTAL	70,000.00	

8. How will activities related to implementation of the Kigali Amendment to phase down HFCs be considered during project preparation for stage II of the HPMP?

The overarching strategy will focus on the HCFC phase-out, however the Government of the Islamic Republic of Iran has consciously chosen a low carbon growth path while undertaking technology transition under HPMP Stage-II. All the participating enterprises, have moved to low global warming potential alternatives. The strategy will also support, at the possible extent given the MLF guidelines, to raise awareness of stakeholders on the Kigali Amendment and its future obligations and the relationship with the reduction of HCFCs, focussing on low GWP alternatives.

9. How will the Multilateral Fund gender policy be considered during project preparation?

In line with the decision 84/92, the operational policy on gender mainstreaming would be applied wherever feasible in the preparation of HPMP Stage-III including in the following activities (a) Encouraging participation in the awareness workshops/stakeholder consultative meetings organized as part of HPMP Stage-III preparation. (b) Promoting training and awareness campaigns to develop staff competency and awareness on gender mainstreaming. (c) Discussing gender issues during the workshops to share experiences and lessons learned on gender mainstreaming.

# **B.** Information required for PRP funding request for investment projects as part of the HPMP INDUSTRIAL REFRIGERATION

1.	. Agency:			UNDP		
				Other (Bilateral)		
2.	2. Sector:			Refrigera	tion	
3.	3. HCFC consumption in item #2 reported under			☑ <b>Yes</b> , please specify reported amount and year:		
	country programme (CP) data?			404 mt (2019)		
4.	4. Information on remaining eligible consumption					
	Substance			Remaining eligible consumption (ODP tonnes)		
	HCFC-22			53.73		
5.	5. Information on enterprise(s) for which funding is being sought					
Ε	Interprise	Year	HCFC consumpt	ion (ODP tonnes) (last three HCFC phase-out		
		established	years) to be achieved			
			2017	2018	2019	
		As per the market survey conducted under the HPMP-II preparation, there were still enterprises using				
	As per the r	narket survey c	conducted under the H	PMP-II prepar	ation, there were s	till enterprises using
HCI			conducted under the H ion and AC sectors (in			

The detailed enterprise wise information will be available after conducting a survey and collecting updated information regarding eligibility, HCFC consumption, baseline equipment, etc.

We note the assistance provided in the Stage II focused in domestic and commercial refrigeration, but it was also noted at the time the existence of companies operating in the industrial refrigeration and air conditioning subsector. Therefore, the INV PRP requested now covers the industrial sector, left unassisted (i.e. Condensing units, Ice Bank, Ice Maker, Industrial refrigerator and milk coolers).

Is also important to mention geopolitical issues, including sanctions, led some companies to become active or inactive for different periods of time to reduce their operational costs during shortage of HCFCs or other raw materials/supplies.

Upon consultation with local Association and stakeholders during the HPMP-II implementation, it was noted that these units are still being produced by at least 16 companies and action is thus necessary to reduce HCFC-22 demand at the same time, trying to prevent a migration to high-GWP HFCs.

Therefore, the funding being requested, in line with Decision 71/42, is critical to improve and extend the bottom up assessment these companies, verify eligibility, collect HCFCs usage data and products profiling, collect granular information required to design sound investment projects, compile aggregated information and design an effective Manufacturing Sector Plan, validate the Sector Plan with stakeholders and submit it along the HPMP-III Over-arching strategy

6. Activities to be undertaken for preparation of the investment project and funding	requested
Activity	Indicative
	funding (US \$)
Carry out sectoral survey for getting enterprise wise information comprising	30,000
consumption, baseline equipment, etc.	
Organise stakeholder consultative workshops with industry for creating awareness on	10,000
eligibility for participation in HPMP, the funding guidelines and on alternative	
technologies.	
Compilation and analysis of survey information Includes data validation with respect	5,000
to information available with NOU and bottom-up validation	
Preparation of draft Sector Plan and Investment Projects - Includes expenditure for	5,000
discussing the draft sector plan with industry and other stakeholders. Small group	
physical meetings will be organised wherever needed.	
Finalisation of HPMP Stage-III and submission after seeking required approvals from the	Included
Government	above
TOTAL	50,000

# C. Information required for PRP funding request for investment projects as part of the HPMP ROOM AIR CONDITIONING

1.	. Agency: UNIDO					
2.	2. Sector:			Air-conditioning		
3.	3. HCFC consumption in item #2 reported			Yes, please specify reported amount and year: 404		
	under country programme (CP) data?			mt (2019)		
4.	4. Information on remaining eligible consumption					
	Substance			Remaining eligible consumption (ODP tonnes)		
	HCFC-22			53.73		
5.	5. Information on enterprise(s) for which funding is being sought					
F	Enterprise Year HCFC consu			Imption (ODP tonnes) (last three HCFC phase-out		
		established	years)			to be achieved
	2017		2018	2019		

As per the market survey conducted under the HPMP-II preparation, there were still enterprises using HCFC-22 in the room AC sector that were not assisted under the Stage II of the HPMP.

The detailed enterprise wise information will be available after conducting a survey and collecting updated information regarding eligibility, HCFC consumption, baseline equipment, etc.

Under the PRP of the Stage II initially 28 companies were surveyed, when 20 companies, though established before 21 September 2007, seemed to import AC units and proceed to charging during the equipment installation, as noted by the Secretariat.

Is also important to mention geopolitical issues, including sanctions, led some companies to become active or inactive for different periods of time to reduce their operational costs during shortage of HCFCs or other raw materials/supplies

Upon consultation with local Association during the HPMP-II implementation, it was found a list of additional 27 companies that would still be operating in Iran. For this reason, PRP INV funding is needed to carry on the bottom up assessment of each company, verify eligibility, collect HCFCs usage data and equipment profiling and design sound investment projects, compile aggregated information and design an effective Manufacturing Sector Plan, validate the Sector Plan with stakeholders and submit it along the the over-arching strategy.

6. Activities to be undertaken for preparation of the investment project and funding requested			
Activity	Indicative funding		
	(US \$)		
Carry out sectoral survey for getting enterprise wise information comprising	30,000		
consumption, baseline equipment, etc.			
Organise stakeholder consultative workshops with industry for creating awareness on	10,000		
eligibility for participation in HPMP, the funding guidelines and on alternative			
technologies.			
Compilation and analysis of survey information - Includes data validation with respect	5,000		
to information available with NOU and bottom-up validation			
Preparation of draft Sector Plan and Investment Projects - Includes expenditure for	5,000		
discussing the draft sector plan with industry and other stakeholders. Small group			
physical meetings will be organised wherever needed.			
Finalisation of HPMP Stage-III and submission after seeking required approvals from	Included		
the Government	above		
TOTAL	50,000		

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HPMP PROJECT PREPARATION REQUEST FORM HCFC PHASE-OUT MANAGEMENT PLAN (OVERARCHING STRATEGY)

# **Part I: Project Information**

Project title:	HCFCs Phase-out Management Plan – Stage III (preparation)		
Country:	Malaysia		
Lead implementing agency:	UNDP		
Cooperating agency (1):	n/a Click or tap here to enter text.		
Implementation period:	July 2021 – December 2022 (18 months)		
Funding requested:			
Agency	Sector Funding requested (US \$)*		
UNDP	Overarching 90,000		

\*Details should be consistent with information provided in the relevant sections below.

#### Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government specifying roles of	X	
	respective agencies (where more than one IA is involved)		
2.	Written confirmation – balances from previous PRP funding approved for stage I HPMP had been returned / will be returned (decision 71/42(i))	$\boxtimes$	
	a. Specify meeting at which PRP funding balance had been returned	82nd	ExCom

# A. Information required to support PRP funding (Overarching strategy)

1. Montreal Protocol compliance target to be met in $\Box$ stage II / $\Box$ stage III of the HPMP				
Phase-out commitment	100%	Year of commitment	2030	
(%)	(with a			
	servicing			
	tail in			
	line with			
	the			
	Protocol)			
⊠ Servicing only		□ Manufacturing only	□ Servicing and	
			manufacturing	

2. Brief background on previous stage of the HPMP (i.e., when the HPMP was approved; a description of the progress in implementation of the previous stage of the HPMP to demonstrate that substantial progress had been made.)

- a. The Stage I of the HCFC phase-out management plan (HPMP) for Malaysia was approved at the 65<sup>th</sup> meeting, to meet 15 per cent reduction from the baseline by 2016, at a total cost of US \$9,587,470, plus agency support costs of US \$719,060, and to phase-out a total of 103.02 ODP tonnes of HCFCs (consisting of 94.6 ODP tonnes of HCFC-141b and 8.42 ODP tonnes of HCFC-22).
- b. The Agreement between the Government of Malaysia and the Executive Committee for the Stage I was further updated at the 75<sup>th</sup> meeting to reflect additional reduction of 8.83 ODP tonnes of HCFC-22, associated with the reallocation of savings of US \$722,952 from the PU foam sector, resulting in a total reduction of 111.85 ODP tonnes of HCFCs.
- c. The Stage I of the HPMP was successfully completed in 2018, with the submission of the Project Completion Report, while the Final Progress Report was submitted to the 82<sup>nd</sup> ExCom Meeting confirming all remaining committed funds had been disbursed.
- d. The Stage II of the HCFC phase-out management plan (HPMP) for Malaysia was approved at the 77<sup>th</sup> meeting of the ExCom at a total cost of US \$ 6,567,728 (US \$ 6,138,063 for investment and non-investment projects plus agency support costs of US \$ 429,665) to phase-out 76.83 ODP tonnes of HCFC-

22 and 66.94 ODP tonnes of HCFC-141b and assist Malaysia in meeting the Montreal Protocol compliance target of 42.9 per cent reduction by the year 2022.

e. The activities being implemented under the Stage II include a series of regulatory actions on ban of substances, the complete phase-out of HCFC-141b in the PU foam and of HCFC-22 in the RAC manufacturing sectors and a series of investment and non-investment activities to support the servicing sector to reduce consumption of HCFC-22.

(a.1) Completion Report of STAGE I of the HPMP			
Activity Description		Implementing	
	13 large sized companies converted to Cyclopentane technology	agency	
Manufacturing-Foam PU	13 large sized companies converted to Cyclopentane technology	UNDP	
Refrigeration servicing sector	51 ATC (Authorized Training centers) equipped with 53 recovery units	UNDP	
Refrigeration servicing sector	220 master trainers trained	UNDP	
Refrigeration servicing sector	6, 056 technicians trained	UNDP	
Refrigeration servicing sector	Six (6) reclaim centers established	UNDP	
Refrigeration servicing sector	Online Certification Portal established to support technicians to access training schedules and register for training, download materials and practice for examinations.	UNDP	
Refrigeration servicing sector	Certification Programme launched, pilot certification scheme has certified 2,268 technicians	UNDP	
Refrigeration servicing sector	Training manuals produced in English and Bahasa	UNDP	
Refrigeration servicing sector	82 HCFC-22 based AC units replaced for HFC-32 units in the pilot replacement programme	UNDP	
Refrigeration servicing sector	One (1) cascade CO2 demonstration project completed at Jaya Grocer Supermarket	UNDP	
Refrigeration servicing sector	Five (5) workshops on RAC technological issues conducted	UNDP	
Legal/regulatory framework	166 Custom Officers trained	UNDP	
Legal/regulatory framework	1,200 Fire and Rescue Department officers trained on safety standards for flammable refrigerants and halon management		
(a.2) Current progress in	implementation of STAGE II of the HPMP	I	
Activity	Description	Implementing agency	
Manufacturing-Foam PU	(Completed) Ten (10) medium sized companies converted to Cyclopentane	UNDP	
Manufacturing-Foam PU	(On-going) 26 small sized companies received ExCom approval to change technology from HFOs to cyclopentane: conversion process at advanced stage.	UNDP	
Manufacturing-Foam PU	(On-going) 27 micro sized companies being assisted on trials in order to make final decision about technology choice	UNDP	
Manufacturing-REF	(On-going) T.A. for two (2) AC Manufacturers and eight (8) Refrigeration Manufacturers for the phase-out of HCFC-22.	UNDP	
Refrigeration servicing sector	(On-going) 238 Custom & DoE Enforcement Officers trained Target 480 Officers by end of Stage II	UNDP	
Refrigeration servicing sector	(Completed) 104 trainers trained Target 100 trainers by end of Stage II	UNDP	
Refrigeration servicing sector	<ul> <li>(On-going) 2,954 technicians trained</li> <li><i>Target 3,500 technicians by end of Stage II</i></li> </ul>		

Refrigeration servicing sector	<ul> <li>(On-going) 49 training equipment delivered to ATCs</li> <li>Target 51 ATCs supported by end of Stage II</li> </ul>	UNDP
Refrigeration servicing sector	(On-going) 48 RAC good practices equipment being procured to Training Institutions • Target 21 Institutions supported by end of Stage II	UNDP
Refrigeration servicing sector	(Completed) 2 Flammable Refrigerants Refrigeration assembling equipment delivered to ATCs • Target 2 ATCs supported by end of Stage II	UNDP
Legal/regulatory framework	(Completed) Ban on the use, import and export of HCFC-22 in RAC manufacturing enacted as of 1 January 2020 and being enforced	UNDP
Legal/regulatory framework	(Completed) Ban on the import and export of HCFC- 141b contained in pre-blended polyols from 1 January 2022 enacted.	UNDP
Legal/regulatory framework	(On-going) Ban on all uses of HCFC-141b, both in bulk and contained in imported pre-blended polyols, except for the solvent sector, from 1 January 2022,	UNDP

years)SubstanceSecHCFC-22ManufacturHCFC-123RAC seHCFC-123ManufacturHCFC-123RAC seHCFC-225SolvHCFC-225caSolvHCFC-225cbSolv	rvicing	<b>2017</b> 1,520.0281 1,693.562	<b>2018</b> 1,705.742	<b>2019</b> 647.906
HCFC-22ManufactureHCFC-122RAC setHCFC-141bManufacturePUHCFC-123HCFC-123RAC setHCFC-225SolveHCFC-225caSolve	rvicing	1,520.0281		
HCFC-22RAC setHCFC-141bManufacturPIHCFC-123ManufacturHCFC-123RAC setHCFC-225SolvHCFC-225caSolv	rvicing	1 602 562		017.200
HCFC-141bManufactur PIHCFC-123Manufactur ManufacturHCFC-123RAC ser PICFC-225HCFC-225Solv PICFC-225ca	•	1,095.502	1,900.478	2,591.624
HCFC-123RAC setHCFC-225SolvHCFC-225caSolv	Ū.	528.79	441.6	323.49
HCFC-225 Solv HCFC-225ca Solv	ring-REF	17.3513	64.45	10.263
HCFC-225 Solv HCFC-225ca Solv	<u> </u>	19.3322	0.13	11.527
HCFC-225ca Solv	Ŭ	1.95	1.93	-
HCFC-225cb Solv	rent	-	-	0.295
	rent	-	-	0.295
TOTAL Exporte	ed (all)	(30.356)	(32.266)	(33.5)
TOTAL Consur		3,781.0136	4,114.33	3,585.40
	4	a given above, please	provide a de	escription of the
	onsumption to the Stage II of t		or decreasing) he use of HCFC-2	22 for the
consumption of this sector has for The same scenario is expected to enforced from 1 January 2022. Of decrease following the investment The remaining consumption of H 123), and the limited manufactur solvents sector. <b>d. Description of inform</b>	blowed a decrea o follow in the F Over the years, t int projects carri ICFCs is concer ing sector (HCI nation that ne	ase trend until the enforce PU Foam manufacturing so he HCFC-141b consumpt ed out under the framewo ntrated in the RAC servici FC-123) as well as a limit eeds to be gathered an	ment of the 1 <sup>st</sup> Ja ector in which the ion has also show rk of the Stage II ng sector (HCFC ed consumption of d updated. Exp	nuary 2020 ban. e ban will be ved consistent of the HPMP. 2-22 and HCFC- of HCFC-225 in the <b>blain why this has</b>
	n during prep	aration for the previou	us stage of the	
Information needed Updated data on HCFC	Review data and cros	Description ss-check "bottom-up" information ga	thered in the past	Agency UNDP
consumption in	Country Programmes		1	UNDF
manufacturing/servicing				
sector				
Updated sectoral	Assess granular data	per sub-sector/application since the S	Stage II preparation	UNDP
consumption information	(2014/2015) and better assess downstream trends t.			UIIDI
Analysis of types of	Update current mark	et profile and trends of use of HCFCs	-based equipment	UNDP
equipmentt using HCFCs				UIUDI
New information on ODS	Review current regul	atory framework and carry on a holis	stic assessment on	UNDP
regulations	their effectiveness to remaining barriers to	better capture lessons learned and id be removed	entify potential	UIUDI
Others, specify.	Carry on proper cons surveys and the PRP RAC servicing sector approvals from instit	ultations with stakeholders, validate process, draft the updated over-archi r plan, endorse strategies with stakeh utions responsible for the MP framev submit document to ExCom and follo	ng strategy and the olders, obtain vork in country,	UNDP
e. Activities to be unde	rtaken for pr	oject preparation and	funding	
Activity		dicative funding (US		Agency
Update HCFCs			10,000	UNDP
downstream data.			27.000	INFO
Assess HCFCs and HCFCs-based equipment market			25,000	UNDP
Review Institutional and			10,000	UNDP
Regulatory baselines				
Carry on Gender			7,500	UNDP

22,500	UNDP
15,000	UNDP
90,000	
	15,000

# f. How will activities related to implementation of the Kigali Amendment to phase down HFCs be considered during project preparation for stage II of the HPMP?

The overarching strategy will focus on the HCFC phase-out, however the Government of Malaysia is keen to promoting ozone-friendly, climate-friendly and energy-efficient technologies to the extent that this is possible within the current guidelines and available funding under the Stage II.

The strategy will also support, at the possible extent given the MLF guidelines, to raise awareness of stakeholders on the Kigali Amendment and its future obligations and the relationship with the reduction of HCFC in parallel to the preparation of the HFCs Phase-out Management Plan to be carried out by the World Bank.

# g. How will the Multilateral Fund gender policy be considered during project preparation?

During the project preparation, gender considerations and actions on gender mainstreaming will be assessed and a proper Gender Management Plan is to be included in the HPMP-III Over-arching strategy: The following actions are expected to be carried in the preparation phase:

• To collect data to produce gender-disaggregated indicators

• Look into introduction of gender considerations when designing components and activities o

(presentation of sex-disaggregated data and visuals of women and men where applicable);

• To establish a baseline of women technicians in R&AC sector and compare it with the number of women involved in NOU R&AC activities.

• To incorporate gender aspects in the recruitment of staff for the PRP (emphasizing that female candidates are welcome and encouraged to apply)

• Assurance that consultants and project personnel have the required gender competence to reflect on progress and challenges related to gender.

• Draft a Gender Management Plan to be supported as part of the HPMP-III over-arching strategy

# B. Information required for PRP funding request for investment projects as part of the HPMP

n/a

ANNEX 3

# Preparation funding requests for HFC phase-down in:

- 1. Colombia
- 2. Dominican Republic
- 3. Nigeria
- 4. Panama
- 5. Paraguay
- 6. Sri Lanka
- 7. Trinidad and Tobago

# PROJECT CONCEPT - Colombia

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HFC PROJECT PREPARATION REQUEST FORM HFC Phase-down Management plan (OVERARCHING)

# **Part I: Project Information**

J		
Project title:	HFC Phase-Down Manage	ement Plan Preparation
Country:	<u>Colombia</u>	
Lead Implementing agency:	UNDP	
Cooperating Agency	<u>GIZ-Proklima</u>	
Implementation period:	November 2021 – October	r 2023
Funding requested:	<u>US \$ 300,000</u>	
Agency	<u>Sector</u>	Funding requested (US \$) *
UNDP	Overarching	205,000
GIZ-Proklima	RAC servicing sector	<u>95,000</u>
	(Training activities)	

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government for choice of agency	$\boxtimes$	
2.	Letter of intent to ratify the KA – Colombia ratified the KA.	$\boxtimes$	

#### A. Information required to support PRP funding (Overarching strategy)

#### 1. Brief background on previous activities related to the Kigali amendment and the HFC phasedown

Following the outcomes of the 79<sup>th</sup> Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol that approved enabling activities for Article 5 Parties (ExCom Decision 79/46) and subsequently ExCom Decision 80/41 that approved funding for Colombia for *Enabling Activities to prepare for the HFC phase-down* and to assure the early ratification of the Kigali Amendment (KA).

The Kigali Amendment has been sanctioned by Law 1970 of 2019 and approved by the Constitutional Court through ruling C-494-2, therefore the legal framework is enabled for Colombia to begin compliance with the obligations derived from this Amendment for the reduction of HFC consumption.

#### 2. Current progress in implementation of Enabling Activities for HFC phase-down Budget: USD \$ 250,000 (plus support funds USD \$ 17,500)

Colombia has completed most of the implementation of the Enabling Activities project in the country, the following activities were developed:

Information awareness activities have developed to support targeting groups and stakeholders involved in the ratification and future implementation processes of the Kigali Amendment.

The review of the legal framework and to liaise with the national institutions involved in the ratification process of the Kigali Amendment was developed to speed up the process and assure that the correct information and legal support is delivered to the decision makers.

The coordination mechanism of the Ozone Technical Unit and other governmental institutions and stakeholders (private and public sectors) has been assessed to determine the capacity needs and gaps that exist for the implementation of the Kigali Amendment and propose interventions were formulated to better integrate these stakeholders.

An assessment of the current Licensing and Quota Systems applied to HFCs and the new series of pure and blended HFCs (at national level) and a proposal of roadmaps for new methodologies for collecting, analyzing, verifying, and reporting consumption and production of HFCs.

A complementary bottom-up information survey on HFC consumption was conducted in some subsectors of the country.

# 3. Overview of estimated use of HFC in Mt

Current use of HFCs in Colombia is estimated through the imports data. There is no production and export of HFCs in the country.

The table below lists the consumption of HFCs during past three years.

HFCs (pure and blends/r	nixtures)			
Substance	Туре	2017	2018	2019
HFC-125	HFC	13.65	0.00	2.62
HFC-134a	HFC	1,148.81	1,207.40	1,483.29
HFC-143a	HFC	3.27	0.00	0.00
HFC-152a	HFC	17.38	10.50	24.04
HFC-227ea	HFC	5.02	3.00	2.52
HFC-245fa	HFC	0.32	0.00	0.00
HFC-32	HFC	0.00	0.00	0.06
HFC-4310	HFC	0.00	0.00	0.00
Chesterton 296 EU	blend HFC	0.32	0.11	0.37
HFC 365mfc/HFC 227 ea (93/7)	blend HFC	30.21	11.88	22.08
POLYCOLD-1102	blend HFC	0.07	0.24	0.00
R-404A	blend HFC	166.89	194.70	188.3
R-407C	blend HFC	28.59	15.15	13.91
R-407F	blend HFC	0.00	0.00	0.00
R-410A	blend HFC	295.75	418.50	594.88
R-413A	blend HFC	4.24	3.21	4.48
R-417A	blend HFC	0.00	0.91	0.00
R-422A	blend HFC	0.88	0.00	0.22
R-422D	blend HFC	14.76	29.47	7.0
R-437A	blend HFC	44.40	43.11	22.00
R-449A	blend HFC	0.00	0.00	2.11
R-452A	blend HFC	0.00	0.00	0.23
R-507A	blend HFC	239.79	372.04	259.36
R-508B	blend HFC	0.00	0.02	0.04
R-513A	blend HFC	0.00	0.00	0.27
	Total	2,014.33	2,310.24	2,627.63

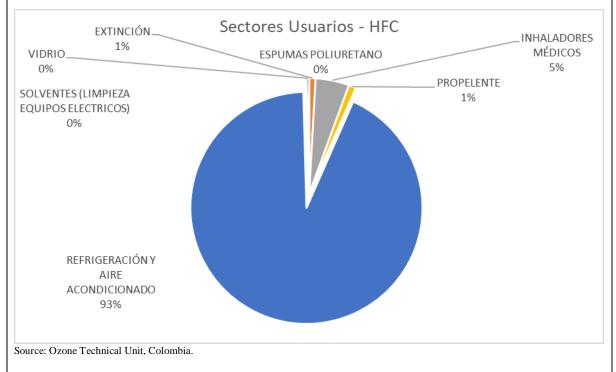
# 4. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The HFC consumption has increased in the last years. The main consumption as pure substance is: HFC-134a in the commercial refrigeration equipment manufacturing sector, servicing sector of MAC, domestic refrigeration and MDI.

There is also an important consumption of HFCs blends (mainly R-404A, R4-07C, R-410A and R-507A) in the commercial and industrial refrigeration manufacturing sector and air conditioning manufacturing sector. There is a small-scale consumption of R-452A and R-513A that have being tested in the manufacturing sector of commercial refrigeration equipment and chillers. The other HFCs blends such as R-413A, R-422A, R-422D, R-437A and R-508B are being used in dropping and retrofit activities in the servicing sector.

There has been a small consumption of HFC-365mfc/HFC-227ea (93/7) in the polyurethane foam sector.

Finally, the consumption of HFC-125 and HFC-227ea in the fire extinguishing sector varies according to the demand for national infrastructure, so constant quantities are not recorded. HFC-152a has been used for the glass industry.



# 5. Activities to be undertaken for project preparation and funding.

The main objective of this funding request is to prepare the HFC Phase Down Overarching strategy and to prepare Colombia for the implementation of the first stage of HFCs phase-down activities, considering the legislative framework that is already in place in Colombia and the requirements for additional policies and national regulations for enforcement. This proposal includes UNDP as the lead agency and GIZ-Proklima as a bilateral agency.

Activity	<b>Indicative funding (US \$)</b>	Lead Agency
International expert review	15,000	UNDP
International expert review	15,000	Other (Bilateral)
Conducting interviews, organizing workshops and stakeholders' consultations	30,000	UNDP
for the integration of national regulations		
and procedures for KA implementation and		

TOTAL	300,000	
strategy.		
Consolidated overarching HFC phase down	30,000	UNDP
raising activities.		
preparation and development of awareness		
Communication and outreach plan	30,000	UNDP
recycling, reclaiming and destruction.		
enhancing the network of recovery,		
the national certification scheme and		
Assessment of the needs for promotion of	30,000	UNDP
stakeholders and training institutions.		
organizing workshops with main		
refrigerants, developing training plan and		
trainings and infrastructure in use of natural	20,000	
Assessment of country level needs for	30,000	Other (Bilateral)
management options		
of HFCs (pure and blends) and HFC banks		
sectorial distribution, consumption trends	50,000	Outer (Bilateral)
Consume HFCs. Consolidation and detailed analysis of the	50,000	Other (Bilateral)
Additional surveys in other subsectors that consume HFCs.	70,000	UNDP
institutions involved in HFC control.	70.000	LINIDD
consolidation of technical capacities in the		

# 6. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?

Colombia is ongoing to phase-out of use the HCFCs. The stage II HPMP is facing to the final step phased-out 65 % of HCFCs by 2021. The activities in the HPMP stage II are focusing on the sustainable elimination in the use of HCFCs and, to the extent possible, promote the safe use of low GWP alternatives, especially natural refrigerants.

National Ozone Unit (Unidad Técnica de Ozono – UTO) will also be in charge of the preparation of the overarching strategy for the HFC phase down in Colombia and subsequent implementation. Some awareness and preparation activities of HFC management will generate synergies between the HPMP and the HFC phase-down. However, it is important to note that HCFC phase-out can be achieve by applying currently available non-flammable /non-toxic technologies mainly the HFCs. The HFC phase down is a much more complex task as it requires inevitably the full-scale introduction of flammable and/or toxic refrigerants in Colombia.

The safe handling of these substances by technicians in the country is a task of a completely different and complex magnitude compared to what has been developed before. This includes not only the training of technicians, but also an associated update/introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.

It is also important that based on lessons learned and established infrastructure from the different activities implemented for the phase out of CFCs and HCFCs, the management of HFCs banks would be considered as a part of the overarching strategy for the HFC phase down in Colombia and its subsequent implementation. It is clear that servicing and end-user sector activities generate HFC waste during replacement and other activities including refrigerant recovery; therefore, it would be useful to analyze the necessary steps for the management of future HFC banks and end-of-life RAC equipment.

A permanent monitoring sectoral and subsectoral HCFC and HFC consumption will be necessary.

UNDP and GIZ see that the main synergy is being achieved by coordinating all the activities by the same governmental entity – UTO in this case – for both the HPMP and the HFC phase down.

# PROJECT CONCEPT - Dominican Republic

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HFC PROJECT PREPARATION REQUEST FORM HFC Phase-down Management plan (OVERARCHING)

Project title:	HFC Phase-Down Manag	HFC Phase-Down Management Plan Preparation		
Country:	Dominican Republic			
Lead Implementing agency:	UNDP			
Cooperating Agency	UNEP			
Implementation period:	October 2021 – May 2023			
Funding requested:	USD\$ 190,000			
Agency	Sector	Funding requested (US \$)*		
UNDP	Overarching 170,000			
UNEP	Overarching	20,000		

# **Part I: Project Information**

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item		No
1.	Official endorsement letter from Government for choice of agency	$\boxtimes$	
2.	Dominican Republic ratified the KA.	$\boxtimes$	

#### A. Information required to support PRP funding (Overarching strategy)

### 1. Brief background on previous activities related to the Kigali amendment and the HFC phasedown

Following the outcomes of the 80th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 80/49, funding was approved for Dominican Republic for *Enabling Activities to prepare for the HFC phase-down* and to assure the early ratification of the Kigali Amendment (KA) which happened on April 14, 2021.

Taking into consideration that the Kigali Amendment to the Montreal Protocol came into force on the 1st of January 2019, and Dominican Republic has updated its reporting mechanism to include HFC, the country will be able to follow up on the standard reporting obligation under the Kigali Amendment. Dominican Republic has already created an enabling environment for the phasedown of HFCs.

# 2. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 150,000 USD

The Dominican Republic ratified the Montreal Protocol on Substances that Deplete the Ozone Layer on May 18, 1993, the London Amendments, and Copenhagen on December 24, 2001, the Montreal and Beijing Amendments were ratified on October 17, 2008. As the Kigali Amendment (KA) to the Montreal Protocol came into force on 1st January 2019, the Amendment was approved in the Dominican Republic on October 26, 2020 and the instrument of ratification finalized in April 14, 2021.

Dominican Republic is in the process of completing the implementation of the Enabling activity in the country. The implementation of the enabling activities was carried out using the existing national infrastructure and the institutional environment already established for the ODS elimination activities in order to guarantee that the Ministry of Environment and Natural Resources personnel, through the National Programme for the Protection of the Ozone Layer (PRONAOZ) obtain the best knowledge and skills to assume the challenges and new responsibilities, in particular, to monitor the consumption of HFCs, as well as the incorporation of a joint approach between the phase-out of HFCs and national policy energy efficiency of the Dominican Republic.

The refrigeration and air conditioning sector of the Dominican Republic can significantly influence the improvement of Energy Efficiency by identifying the energy consumption of equipment and the impacts of

refrigerant gases on their global warming potential, generating synergies between the implementation of the Kigali Amendment and other national programmes. In this regard, the PRONAOZ has strengthened the partnership with the Ministry of Energy and Mines/Directorate of Environmental Affairs and Climate Change to identify the linkage between the HFC phase-down and energy efficiency and aimed to jointly build the capacity of National Ozone Officers and national energy policymakers for linking energy efficiency with Montreal Protocol objectives in support of the Kigali Amendment, as well as discussed policies to ensure an energy efficient RAC sector.

The ratification process of the Kigali Amendment was led by PRONAOZ, it was presented at different levels of the government through several meetings with stakeholders such as associations of the RAC sector, universities and vocational institutes, where training has traditionally been provided for the refrigeration and air conditioning sector. With the implementation of the enabling activities, awareness raising activities were provided to the technicians of the Ministry of Environment and Natural Resources, technicians, companies in the service sector and end-users through PRONAOZ, on the responsibilities emerging from the Kigali Amendment, its scope and impact; Also, the needs and requirements of the service sector were identified to facilitate the phase-out of HFCs.

Dominican Republic has made an initial analysis about the use of HFCs in the country, but additional work will be needed.

#### 3. Overview of estimated use of HFC in Mt

Current consumption of HFCs in Dominican Republic is presented in the table below. There is no production of ODS alternatives in the Dominican Republic and there is no export of HFCs. In accordance with the consumption estimation under Montreal Protocol, the table reports the difference between imports and exports.

Substance	2017	2018	2019	TOTAL	Average
HFC-134A	712.84	703.22	1,055.44	2,471.50	823.83
R-404A	358	365.70	240.70	964.35	321.45
R-410A	184	229.90	646.20	1,059.60	353.20
R-407C	-	5.30	9.56	14.86	4.95
R-507A			24.00	24.00	24.00
R-507C	18	14.16	-	31.82	10.61
R-438		4.08	2.06	6.14	3.07
R-422A		1.36	0.78	2.14	1.07
R-452A			0.22	0.22	0.22
TOTAL	1,271.95	1,323.72	1,978.96	4,574.63	1,524.88

#### HFC consumption, 2017-2019 (in metric tons)

Source: PRONAOZ

# 4. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

As part of the implementation of the Enabling Activities for the implementation of the Kigalie Amendment project, the Dominican Republic has collected information on the consumption of HFCs.

The main HFC consumed in the country is HFC-134a, the consumption is divided in three main categories: a) Domestic Refrigeration, b) commecial refrigeration, and c) MAC. Until 2020, HFC-134a was also used for the manufacture of commercial refrigerators at Farco.

There is also an important use of HFCs in Commercial Refrigeration (mainly R-404A and R-507A and C). It the consumption of these very high GWP refrigerants has been growing as they are the main alternative provided by the distributors that supply Dominican Republic. Consumption has an irrecular trend, as they depend on specific project within the refrigeration sector (i.e. the construction of new supermarkets or commercial centres).

Finally, the consumption of R-410A for AC has increased as imports of AC equipment with HCFC-22 has been banned since 2017 in the country as part of the activities conducted in the implementation of the HPMP Stage II. There is a clear upward trend in the use of HFC 410A, being the second most used refrigerant in the country.

The MAC sector in Dominican Republic needs to be analyzed as there has been no activities in this sector in the past 10 years as HCFCs are not used in MAC and there is a growing fleet of vehicles. It will be important to better understand the dynamics of this sector.

The are small imports of blends such as R-438, R-422A and R-452A used to retrofit existing equipment with HCFC.

#### 5. Activities to be undertaken for project preparation and funding

The main objective of this funding request is to prepare the HFC Phase Down Overarching strategy and to prepare Dominican Republic for the implementation of the first stage HFCs phase-down activities, considering already the legislative framework in place in Dominican Republic and the requirements for additional policies and national regulations for enforcement.

Activity	Indicative funding (US \$)	Lead Agency
Conducting interviews, organizing	20,000	UNEP
workshops and stakeholders'		
consultations for the integration of		
national regulations and procedures		
for KA implementation and		
consolidation of technical capacities in		
the institutions involved in HFC		
control		
Assessment of country level needs for	30,000	UNDP
trainings and certification in use of		
alternative refrigerants, developing		
training plan and organizing		
workshops with main stakeholders and		
training institutions.		
Assessments of the needs for	25,000	UNDP
enhancing training programs on GRP,		
recovery, recycling and destruction.		
Communication and outreach plan	30,000	UNDP
preparation and development of		
awareness raising activities.		
Detailed analysis of the sectorial	30,000	UNDP
distribution and consumption trends of		
HFCs (pure and blends).		
Consultations, review and validation	40,000	UNDP
of the consolidated overarching HFC		
phase down strategy		
International consultant for the	15,000	UNDP
preparation of the proposal.		
TOTAL	190,000	

6. How will activities related to the stage III of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?

Dominican Republic is well on its way to phase-out of use the HCFCs. The stage III HPMP was approved at Intersessional Approval Process of the 86<sup>th</sup> meeting of the ExCom, along its final tranche. The Stage III HPMP for Dominican Republic will phase-out 97.5 % of HCFCs by 2028 and 100% by 2030. The activities in the stage III HPMP will focus on the sustainable elimination in the use of HCFCs and, to the extent possible, promote the safe use of low GWP alternatives. The stage III HPMP for Dominican Republic is being implemented via the National Implementation Modality (NIM) by PRONAOZ in Dominican Republic, part of the Ministry of Environment and Natural Resources (MARN) in Dominican Republic. PRONAOZ will also be in charge of the

preparation of the overarching strategy for the HFC phase down in Dominican Republic and subsequent implementation.

It is expected that there will be synergies among the HPMP and the HFC phase-down. However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable /non-toxic technologies mainly the HFCs. The HFC phase down is a much more complex task as it requires inevitably the full-scale introduction of flammable and/or toxic refrigerants in Dominican Republic. The safe handling of these substances by ALL technicians in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update/introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.

Synergies will be achieved by coordinating all the activities by the same governmental entity – PRONAOZ in this case – for both the HPMPs and the HFC phase down.

The funding request has been based on existing HCFC PRP funding guidelines and HFC PRP funding guidelines currently under discussion. The government of Dominican Republic and UNDP believe that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.

# PROJECT CONCEPT - NIGERIA

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HFC PROJECT PREPARATION REQUEST FORM HFC Phase-down Management plan (OVERARCHING)

art i i i i ject i mor mation				
Project title:	HFC Phase-Down Manage	HFC Phase-Down Management Plan Preparation		
Country:	NIGERIA			
Lead Implementing agency:	UNDP			
Cooperating Agency	UNEP, UNIDO			
Implementation period:	July 2021 – June 2023			
Funding requested:	US\$ 220,000			
Agency	Sector	Funding requested (US \$)*		
UNDP	Overarching	137,000		
UNEP	Overarching	58,000		
UNIDO	Overarching	25,000		

# **Part I: Project Information**

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item		No
1.	Official endorsement letter from Government for choice of agency	$\boxtimes$	
2.	Nigeria ratified the KA.	$\boxtimes$	

# A. Information required to support PRP funding (Overarching strategy)

#### 1. Brief background on previous activities related to the Kigali amendment and the HFC phasedown

In 2016, with MLF funding, Nigeria in collaboration with UNEP, conducted an ODS Alternatives survey in response to decision XXVI/9 of the Meeting of Parties to the Montreal Protocol with funding support from the MLF after approval at the 74th meeting of its ExCom. This complemented the HFC survey conducted by Nigeria and UNDP with CCAC funding (completed in 2015). The ODS alternatives survey enabled Nigeria to better understand her historical consumption and predict future consumption trends of ODS & HFC Alternatives in different sectors and sub-sectors. The survey gave some background on the availability of some HFC alternatives in the country.

Following the outcomes of the 80th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 80/50(e), funding was approved for Nigeria to carry out *Enabling Activities for HFC phase-down* to facilitate the early ratification of the Kigali Amendment (KA). The specific objectives of the Enabling Activities Project were to raise awareness amongst stakeholders on the need to ratify the Kigali Amendment at the earliest possible time, build capacity of HFC stakeholders and policy makers for adoption of HFC refrigerants and to update ODS legislation, incorporate Customs Codes for HFCs and Quota System to facilitate monitoring of HFCs importation and Develop ODS Alternatives Data Hub. Nigeria, in collaboration with UNEP, has completed its activities for the EA project and since ratified the Kigali Amendment in 2018.

#### 2. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 250,000 USD

The Enabling Activities project for HFC phasedown for Nigeria commenced in 2018 and ended in 2020. In order to make stakeholders aware of the benefits of the Kigali Amendment and need to ratify it, a number of Stakeholders consultation meetings and awareness programmes were carried out, to facilitate the ratification process at national level. These initiated the process and stakeholders' readiness to cooperate with the government. Consultants were engaged to carry out various needs assessments, and to provide technical assistance to the NOO to carry out the agreed activities. Awareness workshops were conducted for major HFC and HFC alternatives importers, RAC associations, customs and users on the provisions of the Kigali Amendment and the benefits of its ratification. Awareness workshops were also conducted for the various

stakeholder agencies of the government on the need to ratify the Kigali amendment. The Department of Pollution Control and the NOO held several meetings with the Honourable Minister of Environment and made presentations on the Kigali Amendment. There were also collaborations between the legal unit of the Federal Ministry of Environment and the Federal Ministry of Justice regarding drafting of the ratification documents and other necessary documents.

The Minister of Environment presented the council memo to the Federal Executive Council on the importance of the Kigali Amendment and the need for Nigeria to ratify the Amendment. The Federal Executive Council convinced on the need to ratify the Amendment recommended that the president sign the Kigali Amendment. Other judicial processes were followed by the cabinet office in the presidency.

Thereafter, the President on behalf of the Federal Republic of Nigeria ratified the Kigali Amendment to the Montreal Protocol on 26<sup>th</sup> October 2018 and the instrument of ratification has since been deposited to the UN General Assembly.

# 3. Overview of estimated use of ODS alternatives:

Based on the ODS Alternatives Survey completed in 2016, the uses can be broken down as follows:

Estimated use by ODS After	<u> </u>			
Alternatives	Estimated	use (Mt)		
	2012	2013	2014	2015
HFC*	· · · · · ·			
HFC-134a	789.87	687.20	666.70	638.84
HFC blends				
R-404A	41.00	50.66	64.23	13.50
R-407C	46.21	50.66	54.20	58.96
R-410A	47.35	50.10	54.20	55.10
R-507A				
HFO		I	I	
Other alternatives				
HC-290	10.02	41.47	26.42	92.29
HC-600a	772.66	1988.32	2720.85	220.81
R-744	7.06	2.43	549.40	1.64
<b>R-717</b>	1150.80	878.11	2242.85	1942.08

# Estimated use by ODS Alternative (Metric Tonnes)

4. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The commonest HFC on the Nigeria market is R-134a used in refrigeration, mobile air-conditioning, stationary air-conditioning, domestic refrigeration, and transport.

The most common blend in the country is R-410A, which comes in different names as Puron, Suva 410A, Genetron AZ20, Forane 410A, or Klea 66. It is a blend of HFC-32 and HFC-125 in 50/50 percent by weight. R-410A is being used as a replacement for R-22 by some air-conditioning manufacturing outfits.

The sectors that use HFCs are described as follows:

**Domestic Refrigeration**- In Nigeria, the most widely used refrigerant in the domestic refrigeration sub sector is HFC-134a which is used in servicing of some stand-alone units such as fridges and freezers.

The use of R-600a in domestic refrigeration is slowly increasing in servicing of domestic refrigeration appliances. Some imported domestic fridges are now charged with R-600a. The Government is taking steps to produce HC refrigerants (R-290 and R-600a) in a large scale from the HC plant established in the country with support from the MLF. Once the Plant is commercialized and training and certification of RAC technicians on the safe use of HC refrigerants which is planned for stage 2 of the HPMP to commence in 2020 is achieved, the use of HC refrigerants in the RAC servicing and RAC manufacturing sectors in Nigeria is expected to sharply increase.

**Commercial & Industrial Refrigeration**- This includes ice-makers, cold room/stores, display cabinets, refrigerated transport (trucks, vans), fishing trawlers, and industrial refrigeration. The use of R-404A to replace R-22 is also common in some large applications and for servicing some commercial refrigerators.

**Transport Refrigeration**- R-134a and R-404A are the main refrigerants used in transport refrigeration in the country with R-404A being used in newer refrigerated trucks. The refrigerants are used in refrigerated trucks and railway wagons.

**Refrigeration & Air-conditioning Manufacturing-** The Refrigeration & Air-conditioning Manufacturing Sector in Nigeria comprises of manufacturers of ice cube making machines, cold rooms/houses and manufacturers of Air-conditioners. The major HFC used is HFC-134a. Others include R-404a, R-410A, among others. R-410A is being used as a replacement for R-22 by some air-conditioning manufacturing outfits in Nigeria. R-404A is used in the manufacturing and servicing of commercial refrigeration appliances such as cold rooms and freezers.

Currently (2020), use of HFCs is decreasing in several sectors. R-600a is now more used in domestic refrigeration than HFC-134a, thus, the use of HFC-134a and other HFCs is decreasing steadily in this sector. This is due to findings that R600a is cheaper for the RAC practitioners and seen to be more effective in domestic refrigerators, compared to R-134a.

Use of R-410a is increasing in the Air conditioning sector, while R-134a and R-404a use is increasing in the cold storage and chiller applications respectively.

Activity	Indicative funding (US \$)	Lead Agency
Stakeholder consultation: Consultant to prepare and conduct questionnaires and interviews with relevant stakeholders to update available data on ODS alternatives; Conducting interviews, organizing workshops and stakeholders' consultations for the integration of national regulations and procedures for KA implementation and consolidation of technical capacities in the institutions involved in HFC control	45,000	UNDP
HFC phase-down strategy development: Technical and legal experts to prepare all legal and technical documents, consult all key stakeholders and develop detailed strategy, including assessment of needs to develop/update trainings and certification scheme in use of flammable refrigerants, developing training plan and organizing workshops with main	20,000	UNDP
stakeholders and training institutions, including assessments of the needs for enhancing training programs on recovery, recycling and destruction	20,000	UNEP

# 5. Activities to be undertaken for project preparation and funding UNDP budget: USD 137,000 – UNEP budget: USD 58,000 – UNIDO budget: USD 25,000

	5,000	UNIDO	
Determined in the second of th	47.000	LINIDD	
Data collection by sector/sub-sector/HFC substance	47,000	UNDP	
Communication and outreach plan: Preparation of a	18,000	UNEP	
comprehensive communication and outreach plan in			
consultation with key stakeholders including hotel managers,			
investors, building planners, end-users, consumer associations,			
RAC associations, private sector, supermarkets, cold chain,			
media experts etc. The plan will focus on technology and			
policy awareness raising to influence the investment and user			
behavior.			
Capacity building activities related to RAC sector activities	20,000	UNEP	
and enforcement: Review and assessment of innovative tools			
and approaches to build the capacity of relevant actors			
including OzonAction's tools related to HFC phase-down,			
review of training curricula of vocational schools, university			
and customs, online training and certification tools,			
participation of key stakeholders in international conferences,			
review of energy-efficiency and performance standards, case			
studies, public procurement policies, potential impact of			
incentives and taxes, gender considerations, HFC-free			
labeling, equipment inventories / logbooks, potential of not-in-			
kind alternatives etc.			
Newly identified and existing stakeholders in the	20,000	UNIDO	
manufacturing sector will be assessed to plan the capacity			
building and conversion activities for HFC-free options.			
Private and public operators for reclamation activities for HFC			
will be identified in partnering with both refrigerant suppliers,			
training centres and waste management operators for end-of-			
life vehicles and mobile cold rooms as well as refrigerator and			
air-conditioning equipment. Other activities include			
hydrocarbon supply chain management, mainstreaming			
energy efficiency promoted by the eco-labeling and gender			
equity into all the activities.			
Inception and Validation	25,000	UNDP	
TOTAL	220,000		
6. How will activities related to the stage II of the HPMP implementation be considered during			
project preparation for the HFC phase-down managed	gement plan?		

The second stage of the HPMP covers the period up to 2023 and has already been approved (agencies: UNDP as lead; cooperating: UNIDO and Government of Italy); it aims at a phase-out of 51.35% of HCFC consumption by 2023. Stage 3 is in preparation, to reach 67.5% HCFC phase-out by 2025.

The Ozone Unit will also oversee the preparation of the overarching strategy for the HFC phase down in Nigeria and subsequent implementation.

It is expected that there will be synergies among the HPMP and the HFC phase-down. However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable / non-toxic technologies, which are mainly HFCs. The HFC phase-down is a much more complex task as it requires inevitably the full-scale introduction of flammable and/or toxic refrigerants in Nigeria.

Additionally, some other technologies are not even available in the country and the technical knowledge needs to be created from the ground.

The safe handling of these substances by all technicians, designers and end-users in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update / introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants. Nigeria is dedicated to these changes, but these are demanding tasks.

There will be synergy by coordinating all the activities by the same governmental entity – the National Ozone Office in this case – for both the HPMPs and the HFC phase-down.

The funding request has been based on existing HCFC PRP funding guidelines. It is believed that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.

# 7. How will the Multilateral Fund gender policy be considered during project preparation?

The Government of Nigeria is aware of the Multilateral Fund gender policy contained in ExCom document 84/73, and the related Executive Committee decision 84/92. During project preparation, relevant stakeholders will be sensitized on the gender policy. Efforts will be made to encourage women experts to attend training and awareness activities. The HFC phase-down plan and related activities shall be gender-sensitive. To the extent possible, gender-disaggregated data will be collected.

# PROJECT CONCEPT - PANAMA

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HFC PROJECT PREPARATION REQUEST FORM HFC Phase-down Management plan (OVERARCHING)

#### **Part I: Project Information**

Project title:	HFC Phase-Down Management Plan Preparation		
Country:	Panama		
Lead Implementing agency:	UNDP		
Cooperating Agency	N/A		
Implementation period:	October 2021 – May 2023		
Funding requested:	USD\$ 190,000		
Agency	Sector Funding requested (US \$)*		
UNDP	Overarching 190,000		

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item		No
1.	Official endorsement letter from Government for choice of agency	$\boxtimes$	
2.	Panama ratified the KA.	$\boxtimes$	

#### A. Information required to support PRP funding (Overarching strategy)

# 1. Brief background on previous activities related to the Kigali amendment and the HFC phase-down

Following the outcomes of the 81<sup>st</sup> Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 81/34, funding was approved for Panama for *Enabling Activities to prepare for the HFC phase-down* and to assure the early ratification of the Kigali Amendment (KA) which happened on September 28, 2018.

Taking into consideration that the Kigali Amendment to the Montreal Protocol came into force on the 1<sup>st</sup> of January 2019, and Panama has updated its reporting mechanism to include HFC, the country will be able to follow up on the standard reporting obligation under the Kigali Amendment. Panama has already created an enabling environment for the phasedown of HFCs.

# 2. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 150,000 USD

Panama is in the process of completing the implementation of the Enabling Activity project for the implementation of the Kigali Amendment in the country which has been implemented with support of UNDP and Canada. The country has ratified the Kigali Amendment and an HFC licensing system is in place.

Meetings and dialogues with specific working groups for strengthening procedures have been conducted between Customs and the National Ozone Unit to control HFC imports and export. The licensing system was evaluated during the implementation of the Enabling Activity and it was concluded that it captures HFC imports into the country, quota system for the importation of HFC is not yet in place.

The project prepared a road map for the implementation of its activities which was discussed with local authorities, importers, and cooperation agencies, and the UNDP international expert for the implementation of the enabling activity projects in the region.

The NOU has held discussions with the National Secretariat about opportunities to make synergies between the need to have a national system for the final disposal of HFC and the GEF/UNIDO project that they are implementing to develop a system for the final disposal of obsolete RAC equipment.

A socialization process on the Kigali Amendment, the commitments in the reduction schedule and the challenges to be faced for its implementation has been initiated with stakeholders such as the Ministry of Health, the Ministry of Environment, the Ministry of Commerce and Industry, the National Customs Authority, the National Secretariat of Energy, the Ministry of Education, two main institutes for training RAC technicians, the Colon Free Trade Zone, and eight refrigerants importing companies.

While an initial analysis of HFC use has been conducted in Panama, additional work will be required in the country to detail consumption and sectoral trends.

# 3. Overview of estimated use of HFC in MT

Current consumption of HFCs in Panama is presented in the table below. There is no production of ODS alternatives in the Panama and there is no export of HFCs. In accordance with the consumption estimation under Montreal Protocol, the table reports the difference between imports and exports.

HFC consumption, 2018-2020 (in metric tons)           Substance         2018         2019         2020         Total         Average (18-20)							
Substance	2010	I			Average (10-20)		
		Pur	e substances	1	1		
HFC-134a	247.7	407.9	348.7	1,004.2	334.7		
HFC-32	0.1	-	-	0.1	0.0		
			Blends				
R-404A	173.9	72.8	76.7	323.4	107.8		
R-407A	-	0.3	-	0.3	0.1		
R-407C	16.1	3.9	12.0	32.0	10.7		
R-410A	340.9	221.6	160.2	722.7	240.9		
R-417A	-	0.4	1.4	1.7	0.6		
R-422D	0.4	0.0	-	0.4	0.1		
R-425A	-	0.1	-	0.1	0.0		
R-437A	-	0.1	-	0.1	0.0		
R-438A	4.5	3.2	1.2	8.9	3.0		
R-452A	-	-	0.1	0.1	0.0		
R-507A	89.2	54.9	54.6	198.7	66.2		
TOTAL	872.7	765.1	654.8	2,292.6	764.2		
		So	urce: NOU	•			

HFC consumption,	2018-2020 (i	n metric tons)	
III C consumption,		m meene coms,	

4. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

As part of the implementation of the Enabling Activities for the implementation of the Kigali Amendment project, the Panama has collected information on the consumption of HFCs.

There is not local production of HFC in the country, all its consumption come from imports from a limited number of importers. There are not export of HFC. In general, the Panamanian market is no different from other Article 5 countries with a minimal local manufacturing of RAC equipment that rely entirely on import of such equipment.

Although, total consumption of HFCs has decreased in recent years, it is important to highlight the impact of the COVID-19 pandemic in the refrigerant market. The government of Panama took drastic measures to control the COVID-19 pandemic, imposing a long lockdown that impacted the general economy, including the RAC sector then reducing the imports of all refrigerants, including HFC.

HFC-134a is the main HFC used in the country, covering applications such as domestic refrigeration, stand-alone commercial refrigeration units and MAC. Another HFC of interest is the R-410A, its consumption has had an irregular trend, but considering the impact of the pandemic, it is expected that its consumption will grow in the

next years, as most of the AC equipment imported into the country use this refrigerant. R-404A and R-507A is used in commercial refrigeration, its consumption has been relatively stable in the last couple of years.

Small quantities of R-407F, R-417A, R-422D and R-438A refrigerants are used as substitutes for R-22 in stationary AA, commercial refrigeration and industrial refrigeration applications. Depending on the refrigerant, the replacement can be done without an oil change "drop-in" or with an oil change "retrofit".

# 5. Activities to be undertaken for project preparation and funding

The main objective of this funding request is to prepare the HFC Phase-down Overarching strategy and to prepare Panama for the implementation of the first stage HFCs phase-down activities, considering already the legislative framework in place in Panama and the requirements for additional policies and national regulations for enforcement.

Activity	Indicative funding (US \$)	Lead Agency
Conducting interviews, organizing workshops and	20,000	UNDP
stakeholders' consultations for the integration of		
national regulations and procedures for KA		
implementation and consolidation of technical		
capacities in the institutions involved in HFC control.		
Assessment of country level needs for trainings and	35,000	UNDP
certification in use of alternative refrigerants,		
developing training plan and organizing workshops		
with main stakeholders and training institutions.		
Assessments of the needs for enhancing training	25,000	UNDP
programs on GRP, recovery, recycling and destruction.		
Communication and outreach plan preparation and	25,000	UNDP
development of awareness raising activities.		
Detailed analysis of the sectorial distribution (including	40,000	UNDP
subsectors) and consumption trends of HFCs (pure and		
blends).		
Consultations, review and validation of the	30,000	UNDP
consolidated overarching HFC phase down strategy.		
International consultant for the preparation of the	15,000	UNDP
proposal.		
TOTAL	190,000	)

# 6. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?

Panama is well on its way to phase-out of use the HCFCs. The Stage III HPMP was approved during the IAP of the 86<sup>th</sup> meeting of the ExCom. Final tranche of the Stage II of the HPMP was approved in the IAP for the 85<sup>th</sup> meeting of the ExCom. The Stage III HPMP for Panama will phase-out 97.5% of HCFCs consumption by 2028 and 100 % by 2030. The activities in the stage III HPMP will focus on the sustainable elimination in the use of HCFCs and, to the extent possible, promote the safe use of low GWP alternatives.

The stage III HCFC phase-out management plan for Panama will be implemented through the General Sub Directorate of Environmental Health through the National Ozone Unit (NOU) within the Ministry of Health (MINSA) in Panama. The NOU will also be in charge of the preparation of the overall strategy for HFC phase-out in Panama and its subsequent implementation.

The scope of the Stage III of the HPMP will be considered when designing the HFC phase-down management plan, so its components, activities complement each other. It is expected that there will be synergies among the HPMP and the HFC phase-down.

However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable /non-toxic technologies mainly the HFCs. The HFC phase down is a much more complex task as it requires inevitably the full-scale introduction of flammable, high pressure and/or toxic refrigerants in Panama. In addition, some technologies are not yet available or have not yet been identified as available technologies to replace HFCs in some sectors at the local level, know-how to adopt these technologies needs to be built at the local level.

The safe handling of these substances by ALL technicians in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update/introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.

Synergies will be achieved by coordinating all the activities by the same governmental entity - NOU in this case - for both the HPMPs and the HFC phase down.

The funding request has been based on existing HCFC PRP funding guidelines and HFC PRP funding guidelines currently under discussion. The government of Panama and UNDP believe that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.

# PROJECT CONCEPT - PARAGUAY

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HFC PROJECT PREPARATION REQUEST FORM HFC Phase-down Management plan (OVERARCHING)

#### **Part I: Project Information**

Project title:	HFC Phase-Down Management Plan Preparation				
Country:	Paraguay				
Lead Implementing agency:	UNDP				
Cooperating Agency	N/A				
Implementation period:	October 2021 – May 2023				
Funding requested:	USD\$ 170,000				
Agency	Sector Funding requested (US \$)*				
UNDP	Overarching	170,000			

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government for choice of agency	$\boxtimes$	
2.	Paraguay ratified the KA.	$\boxtimes$	

#### A. Information required to support PRP funding (Overarching strategy)

# 1. Brief background on previous activities related to the Kigali amendment and the HFC phase-down

Following the outcomes of the 81<sup>st</sup> Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 81/34, funding was approved for Paraguay for *Enabling Activities to prepare for the HFC phase-down* and to assure the early ratification of the Kigali Amendment (KA) which happened on November 1, 2018.

Taking into consideration that the Kigali Amendment to the Montreal Protocol came into force on the 1st of January 2019, and Paraguay has updated its reporting mechanism to include HFC, the country will be able to follow up on the standard reporting obligation under the Kigali Amendment. Paraguay has already created an enabling environment for the phasedown of HFCs.

# 2. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 150,000 USD

Paraguay is in the process of completing the implementation of the Enabling Activity project for the implementation of the Kigali Amendment in the country. The country has ratified the Kigali Amendment and an HFC licensing system is in place. The licensing system was thoroughly evaluated during the implementation of the Enabling Activity and it was concluded that it captures HFC imports into the country well, quota system for the importation of HFC is not yet in place.

The project prepared a road map for the implementation of its activities which was discussed with the General Directorate of Air and Ozone Department, local authorities, and cooperation agencies, and the UNDP international expert for the implementation of the enabling activity projects in the region.

In addition, in the framework of the enabling activities project, an international expert has reviewed the current import, export and transit framework to propose improvements in the control of HFCs.

A socialization process has been initiated with stakeholders in Paraguay on the Kigali Amendment, the commitments in the reduction schedule and the challenges to be faced for its implementation.

While an initial analysis of HFC use has been conducted in Paraguay, additional work will be required in the country to detail consumption and sectoral trends.

# 3. Overview of estimated use of HFC in MT

Current consumption of HFCs in Paraguay is presented in the table below. There is no production of ODS alternatives in the Paraguay and there is no export of HFCs. In accordance with the consumption estimation under Montreal Protocol, the table reports the difference between imports and exports.

Substance	2018	2019	2020	Total	Average (18-20)
		Pure			
HFC-134a	345.0	338.0	411.9	1,094.9	365.0
HFC-227ea	-	-	2.3	2.3	0.8
HFC-236fa	6.0	-	6.0	12.0	4.0
HFC-245fa	_	-	0.1	0.1	0.0
Subtotal	351.0	338.0	420.2	1,109.3	369.8
		Blends			_
R-404A	102.8	74.1	83.6	260.6	86.9
<b>R-407</b> C	7.0	6.0	8.8	21.8	7.3
R-410A	61.4	69.1	180.9	311.4	103.8
R-507	-	1.5	0.2	1.7	0.6
R-427A	11.3	-	-	11.3	3.8
R-417A	11.0	-	-	11.0	3.7
R-417B	-	-	27.8	27.8	9.3
<b>R-407</b> F	9.5	-	-	9.5	3.2
Whacool38A	-	-	2.3	2.3	0.8
Subtotal	202.9	150.7	303.7	657.3	219.1
	Pr	e-blended p	olyols		
HFC-365mfc/227ea in polyols	-	-	13.1	13.1	4.4
Subtotal	-	-	13.1	13.1	4.4
TOTAL	554.0	488.7	737.1	1,779.7	593.2

HFC consumption, 2018-2020 (in metric tons)

Source: NOU

4. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

As part of the implementation of the Enabling Activities for the implementation of the Kigali Amendment project, the Paraguay has collected information on the consumption of HFCs.

There is not local production of HFC in the country, all its consumption come from imports from a limited number of importers. There are not export of HFC. In general, the Paraguayan market is no different from other Article 5 countries without local manufacturing of RAC equipment that rely entirely on import of such equipment. R-404A is used in commercial refrigeration, its consumption has been relatively stable in the last years.

The consumption of HFCs has increased in recent years due to the phase-out of HCFCs, used in the servicing sectors of the RAC sector, fire extinguishers and in formulated polyols. HFC-134a is the main HFC used in the country, covering applications such as domestic refrigeration, stand-alone commercial refrigeration units and

MAC. Another HFC of interest is the R-410A, its consumption has sharply increased in the last years due to increase imports of domestic AC units and replacement of HCFC-22 based equipment.

R-407F, R-417A, R-417B and R-427A refrigerants are used as substitutes for R-22 in stationary AA, commercial refrigeration and industrial refrigeration applications. Depending on the refrigerant, the replacement can be done without an oil change "drop-in" or with an oil change "retrofit".

Since 2020, some imports of pre-blended polyols for the manufacture of polyurethane foams using a blend HFC-365mfc/227ea were identified.

# 5. Activities to be undertaken for project preparation and funding

The main objective of this funding request is to prepare the HFC Phase-down Overarching strategy and to prepare Paraguay for the implementation of the first stage HFCs phase-down activities, considering already the legislative framework in place in Paraguay and the requirements for additional policies and national regulations for enforcement.

A _4*_*4		T J A
Activity	Indicative funding (US \$)	Lead Agency
Conducting interviews, organizing workshops and	20,000	UNDP
stakeholders' consultations for the integration of		
national regulations and procedures for KA		
implementation and consolidation of technical		
capacities in the institutions involved in HFC control.		
Assessment of country level needs for trainings and	25,000	UNDP
certification in use of alternative refrigerants,		
developing training plan and organizing workshops		
with main stakeholders and training institutions.		
Assessments of the needs for enhancing training	25,000	UNDP
programs on GRP, recovery, recycling and destruction.		
Communication and outreach plan preparation and	20,000	UNDP
development of awareness raising activities.		
Detailed analysis of the sectorial distribution and	35,000	UNDP
consumption trends of HFCs (pure and blends).		
Consultations, review and validation of the	30,000	UNDP
consolidated overarching HFC phase down strategy.		
International consultant for the preparation of the	15,000	UNDP
proposal.		
TOTAL	170,000	

6. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?

Paraguay is well on its way to phase-out of use the HCFCs. The Stage II HPMP has been submitted to the 87<sup>th</sup> meeting of the ExCom. Final tranche of the Stage I of the HPMP was approved in the IAP for the 86<sup>th</sup> meeting of the ExCom. The Stage II HPMP for Paraguay will phase-out 100 % of HCFCs by 2030. The activities in the stage II HPMP will focus on the sustainable elimination in the use of HCFCs and, to the extent possible, promote the safe use of low GWP alternatives.

The stage II HCFC phase-out management plan for Paraguay will be implemented through the General Directorate of Air through the Ozone Department within the Ministry of Environment and Sustainable Development (MADES) in Paraguay. The General Directorate of Air through the Ozone Department will also be in charge of the preparation of the overall strategy for HFC phase-out in Paraguay and its subsequent implementation.

The scope of the Stage II of the HPMP will be considered when designing the HFC phase-down management plan, so its components, activities complement each other. It is expected that there will be synergies among the HPMP and the HFC phase-down.

However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable /non-toxic technologies mainly the HFCs. The HFC phase down is a much more complex task as it requires inevitably the full-scale introduction of flammable, high pressure and/or toxic refrigerants in Paraguay. In addition, some technologies are not yet available or have not yet been identified as available technologies to

replace HFCs in some sectors at the local level, know-how to adopt this technologies needs to be built at the local level.

The safe handling of these substances by ALL technicians in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update/introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.

Synergies will be achieved by coordinating all the activities by the same governmental entity – PRONAOZ in this case – for both the HPMPs and the HFC phase down.

The funding request has been based on existing HCFC PRP funding guidelines and HFC PRP funding guidelines currently under discussion. The government of Paraguay and UNDP believe that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HFC PHASE-DOWN MANAGEMENT PLAN PROJECT PREPARATION REQUEST (OVERARCHING)

# **Part I: Project Information**

Project title:	HFC phase-down management plan (preparation)					
Country:	Sri Lanka					
Lead implementing agency:	UNDP					
Cooperating agency:	UNEP					
Implementation period:	July 2021-June 2023 (24 months)					
Funding requested: US \$ 1	70,000*					
Agency	Sector Funding requested (US \$)					
UNDP	Overarching 135,000					
UNEP	Overarching	35,000				

\* As per proposed cost guidelines (http://www.multilateralfund.org/86/English/1/8688.pdf)

# Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government specifying roles of respective agencies (where more than one IA is involved)		
2.	Ratification of the Kigali Amendment	$\boxtimes$	

# A. Information required to support PRP funding (Overarching strategy)

1. Montreal Protocol compliance target to be met in ⊠ stage I of the HFC phase- down plan						
Phase-down commitment	Freeze and 10 %	Year of commitment	2024 and 2029			
Servicing only		□ Manufacturing only	□ Servicing and manufacturing			
phase-down,	as well as HPMP st	ctivities related to the Kigal tages (i.e., information on appression on appression of the second structure of the second stru	proval and			

implementation of ODS alternatives survey; approval and progress in implementation of Enabling Activities project with the expected completion date; HPMP implementation)

- a. The funding for Survey of ODS alternatives for Sri Lanka was approved at the 74<sup>th</sup> meeting of the Executive Committee (Decision 74/30) at the amount of US \$35,000 plus agency support costs for UNEP. The project was completed, and survey report was submitted to the 79<sup>th</sup> Meeting of the Executive Committee in July 2017.
- b. At the 81<sup>st</sup> Meeting of the Executive Committee, the Enabling Activities for HFC phase-down for Sri Lanka was approved by the Executive Committee with the

funding level of US\$ 150,000 as per decision 81/31. The implementation of the EA projects is still on going (delayed due to the COVID 19). Sri Lanka ratified the Kigali Amendment on 28<sup>th</sup> September 2018.

- c. The 62<sup>nd</sup> meeting of the Executive Committee approved the funding for HPMP Stage I at amount of US\$ 647,866 plus agency support cost of US\$ 62,285 for Sri Lanka for the period 2011-2020. Currently, Sri Lanka is implementing the fourth and last tranche of the HPMP and the same will be completed by December 2021.
- d. The intersessional 86<sup>th</sup> Executive Committee meeting approved HPMP Stage II for an amount of US\$ 1,040,000 plus agency support cost US\$ 97,700. However, fund release will be effected after review and discussion on verification report submitted during extended 86<sup>th</sup> ExCom meeting (March-April 2021).

# **3.** Current progress in the implementation of Enabling Activities for HFC phasedown project

uown projec		
Activity	Description	Implementing agency
Develop Country Assessment Report and national implementation strategy	Country Assessment Report (CAR) finalised. The CAR includes a survey on historical data of import of HFCs and HFC based equipment, policy review and capacity need assessment for the implementation of the Kigali Amendment and recommendations for the implementation of the Kigali Amendment	UNEP
Capacity building and Training on ODS alternatives	<ul> <li>-Undertaken training needs assessment for the introduction of low-GDP alternatives, assessment on availability of tools and equipment, availability of standards etc.</li> <li>-Conducted a training programme on Refrigerant Driving License programme and two roundtable discussions on zero ODP and low GWP alternatives for large end-user groups.</li> </ul>	
Article 4B licensing and reporting system. (Integration of legal and policy instruments to Kigali Amendment)	<ul> <li>-Reviewed and identified method to include HFCs, and HFC based equipment into the licensing system in Coordination with Sri Lanka Customs and Import &amp; Export Control Department. National HS codes for commonly imported HFCs and its alternative substances were introduced.</li> <li>-Gazette Notification Number 2182/10 was issued in 2020 to include HFCs to the list of substances controlled under the Import &amp; Export Control Act No.1 of 1969, and to extend licensing system to HFCs.</li> <li>-Existing policies are to be reviewed by relevant government agencies to include provisions of the KA.</li> </ul>	
Communication & Awareness	-Produced a documentary film for the general public and a video documentary on GSP for technicians. Other	

	awareness including s employees	nt						
	4. Overview of estimated consumption of ODS alternatives as per Country Assessment Report developed under the EA project (data is in MT)							
Substance	2012	2013	2014	2015	2016	2017	2018	
HFC-134a	198.41	215.04	194.3 4	177.30	143.05	307.43	253.61	
HFC-32	0.00	0.00	0.00	0.00	0.80	0.00	5.60	
R-404A	14.33	17.76	20.44	26.95	11.34	27.81	15.14	
R-407C	6.64	8.19	6.56	4.99	2.95	6.55	7.91	
R-410A	4.66	8.46	7.11	5.20	12.43	24.75	18.75	
R-507A	4.14	8.00	12.55	5.36	4.20	8.14	8.07	
Total	228.18	257.45	241.0 0	219.80	174.77	374.68	309.08	

Note: data as per Country assessment report developed under the Enabling Activity

# 5. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The survey on ODS alternatives in Sri Lanka was conducted in 2016; a Country Assessment Report was prepared in 2020 to get a better understanding of consumption trends for HFCs.

As seen from the table above, the annual demand of HFCs has grown consistently from 228.18 tons in 2012 to 374.68 in 2017 and 309.08 tons in 2018. It is also evident that the demand for HFC in RAC sector has been steadily increasing for the same period, due to the replacement of HCFCs with ODS alternatives (mainly HFCs) for most of the RAC applications, there has been a significant increase in HFCs demand due to the growth in emerging market in the country. Demand and consumption of HFCs cannot be accurately calculated yet as control (i.e., licensing system) for import of HFCs was introduced following the 30 June 2020 gazette notice.

An estimation of sector wise data for HFC consumption for the year 2018 is as below: (This is assumption based on discussion with stakeholders during survey and national cooling plan development. Actual sector wise consumption will only be available after survey is conducted under preparation of HFC phase down project)

Sector/ Sub-sector	% consumpti on	HFCs used
1 Air conditioning		
Residential air conditioning	7%	R410A, R32
Commercial air conditioning/VRF	3%	R407C, R410A

Chillers/Heat pumps	21%	R134a, R410A
Mobile Air Conditioning (MAC)	49%	R134a
2 Domestic, Commercial and industrial refrigeration		
Domestic refrigeration	4%	R134a
Commercial refrigeration	9%	R134a, R404A, R507A
Industrial refrigeration	5%	R404A, R507A
3. Transport refrigeration		
Transport refrigeration	1%	R404A, R507A

The HFCs are mainly consumed in servicing of RAC equipment. MAC subsector has the largest consumption of HFCs in RAC servicing sector. It is estimated that about 50% of the total consumption of HFCs is used in MAC, followed by Chillers with about 20%. The Commercial refrigeration sector is the next larger sector consuming HFCs which is associated with the consumption of HFC-404A, HFC-134a, and HFC-507A. High demand from stationary AC sector is associated with the consumption of HFC-4008. The Consumption of HFC-408. The Consumption of HFC-4008. The Consumption of HFC-408. The H

While HFCs are majorly used in RAC servicing sector, a small amount of HFCs are also used in refrigeration manufacturing sector. Through the survey conducted under enabling activity, HPMP II and further discussion with associations, it was found that there are a few commercial/industrial manufacturers/assemblers in Sri Lanka that produce RAC equipment and supply mainly to the local market. The majority of these large refrigeration systems are manufactured and installed by the local manufacturers or assemblers who imports compressors/condensers while other parts are manufactured locally.

Due to the steady economic growth in the last decade, the buying capacity of RAC equipment including vehicles with Mobile Air Conditioning (MAC) by the low- and middle-income group population has substantially increased. The rise in the residential and commercial construction with high growth in the tourism and hospitality industries in the recent past also created a higher demand for RAC equipment in the country. Thus, it is expected that improving economic conditions, increasing urbanization, and rising per capita income of the country will drive the growth of the RAC sector in the future.

It is predicted that the trend of HFC-134a consumption which is mainly in the domestic refrigeration/ air conditioning and MAC would continue to grow, because repairs and service has an upward trend with the annual increase of purchases. Further, considerable amounts of R-134a chillers are operating in central air conditioning systems and the old R-22 chillers are being replaced with either R-134a or R-410A mainly because these chillers are energy efficient in operation and commercially available. This means that getting more HFC-based AC systems for servicing is expected with an increasing trend in the future. Based on experts and industry inputs, it is estimated that the annual growth of HFC consumption would be high in coming years.

# 6. Activities to be undertaken for project preparation and funding

Activity	ctivity Cost items		Agency	
National Survey for data collection, stakeholder	Conduct interviews, identify stakeholders, organize national consultation workshops and stakeholder meetings	30,000	UNDP	
consultation, data analysis	Data collection by sector/sub- sector/HFC Substances and equipment, and servicing sector usage and needs	40,000	UNDP	
HFC phase-down strategy development	-Consultations with key stakeholders and development of detailed strategy with cost action plan, including assessment of needs for policy/regulation development and enacting, capacity building of various stakeholders, as well as the outreach/awareness to support the HFC phasedown. -National consultation workshop for finalization of overarching strategy and HFC Phase-down Management Plan -Development of the Gender strategy	40,000	UNDP	
	Supporting strategy and action plan development, travel and workshop related to non- investment component	35,000	UNEP	
Analysis and Validation	-Analysis of the Sectoral distribution and consumption trend of HFCs-Consultation, review and validation of the consolidated overarching HFC phase down Strategy	25,000	UNDP	
TOTAL		170,000		
	ities related to the implementation t preparation for HFCs phase-dow		considered	

The Stage II HPMP for Sri Lanka was approved at the 86<sup>th</sup> meeting of the ExCom and HCFCs will be phased out 100% by 2030. The activities in the stage II of HPMP will focus on the sustainable phaseout of HCFCs and, to the extent possible, promote the safe use of low-GWP alternatives. The stage II HPMP will be implemented by the Ministry of Environment (MoE) and supported by UNDP as Lead Agency and UNEP as Cooperating Agency.

It is expected that there will be synergies among the HPMP and the HFC phase-down. However, the HFC phase-down is a much more complex task as it makes the full-scale introduction of flammable and/or toxic refrigerants. The safe handling of these substances by all technicians in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update / introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.

The National Ozone Unit will also oversee the preparation of the overarching strategy and investment projects for the HFC phase down in Sri Lanka and subsequent implementation. Lessons learned from HPMP implementation will be considered at preparation of the overarching strategy for the HFC phase down.

# 8. How will the Multilateral Fund gender policy be considered during project preparation?

The Government of Sri Lanka is aware of the Multilateral Fund gender policy contained in ExCom document 84/73, and the related Executive Committee decision 84/92.

The RAC sector is crucial to all countries in the successful phaseout of HCFCs and forthcoming phase-down of HFCs under the Montreal Protocol. The fast-growing RAC sector in Sri Lanka also can offer a wide variety of interesting and fulfilling careers for women as well as men.

During the project preparation, gender considerations and actions on gender mainstreaming will be assessed and a Gender Management Plan is to be included in the HFC phase down over-arching strategy: The following actions are expected to be carried in the preparation phase:

- Look into introduction of gender considerations when designing components and activities
- Assess barriers or bottlenecks for women engagement in the sector
- To establish a baseline of women technicians in RAC sector and compare it with the number of women involved in NOU RAC activities
- To incorporate gender aspects in the recruitment of staff for the PRP and consultants (emphasizing that female candidates are welcome and encouraged to apply)
- Draft a Gender Management Plan to be supported as part of the HFC phase down management plan over-arching strategy

# PROJECT CONCEPT - Trinidad and Tobago

# MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL HFC PROJECT PREPARATION REQUEST FORM HFC Phase-down Management plan (OVERARCHING)

# **Part I: Project Information**

Project title:	HFC Phase-Down Management Plan Preparation				
Country:	Trinidad and Tobago				
Lead Implementing agency:	UNDP				
Cooperating Agency					
Implementation period:	January 2021 – June 2022				
Funding requested:					
Agency	Sector Funding requested (US \$)*				
UNDP	Overarching 150,000				

\*Details should be consistent with information provided in the relevant sections below.

# Part II: Prerequisites for submission

	Item	Yes	No
1.	Official endorsement letter from Government for choice of agency	$\boxtimes$	
2.	Letter of intent to ratify the KA – Trinidad and Tobago ratified the KA.	$\boxtimes$	

# A. Information required to support PRP funding (Overarching strategy)

1.	Brief background on previous activities related to the Kigali amendment and the HFC phase-
	down

Following the outcomes of the 80th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 80/50(e), funding was approved for Trinidad and Tobago for *Enabling Activities to prepare for the HFC phase-down* and to assure the early ratification of the Kigali Amendment (KA) which happened on Nov 11, 2017.

Taking into consideration that the Kigali Amendment to the Montreal Protocol came into force on the 1st of January 2019, and that Trinidad and Tobago has updated its reporting mechanism to include HFCs, the country will be able to follow up on the standard reporting obligation under the Kigali Amendment. Trinidad and Tobago has already created an enabling environment for the phasedown of HFCs.

Likewise, under the aforementioned project, it should be noted that information was obtained on the consumption and use of HFCs and their substitutes for the period 2013-2018; as well as an estimate of its imports by 2030. In addition, the economic evaluation of the implications that the implementation of the Kigali amendment would generate in the country was estimated. All this, focused on the consumption of said substances in the refrigeration and air conditioning sector, pending the collection of information in sectors such as the production of foams, solvents, aerosols, fire fighting and others that are identified as consuming HFCs.

#### 2. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 150,000 USD

In the Project "Enabling Activities for the Kigali Amendment", activities were carried out, including the following:

- Evaluation and analysis to adapt the existing licensing system, which is applicable for HCFCs, in order to implement control for HFCs.
- Preparation of the proposal to open tariff codes for HFCs, in order to have specific codes for each type of HFC substance.
- Dissemination activities on the commitments made in the framework of the Kigali Amendment and the promotion of environmentally friendly alternatives to HFCs.

• Collection of information on HFC consumption in the refrigeration and air conditioning sectors.

In this sense, it is necessary to complement the information on the consumption of HFCs, focusing on the uptake of the consumption of these substances in the foam, solvent, aerosol, firefighting, and other production sectors. In addition to this, identify their training and certification needs, which will constitute inputs for the elaboration of the national strategy that will allow the country to comply with the first stage of the HFC gradual reduction calendar.

# 3. Overview of estimated use of ODS alternatives 2016 – 2018 in Mt

Information on the consumption of HFCs was obtained under the activities of the "Enabling Activities for the Kigali Amendment" project, which is detailed in the following table, which specifies each type of HFC that is used as a refrigerant in the refrigeration and air conditioning sector. In this sense, according to what has been indicated above, is important to obtain information on the consumption of HFCs in other sectors in order to identify them, evaluate their consumption, the available alternatives and thus form part of the national strategy that allows the country compliance with the first control measures for HFCs, related to freezing and a 10% reduction in the consumption of these substances.

Main HFC Consumptio				2020
Substance	2017	2018	2019	2020
HFC-134a	366.69	384.25	344.63	543.07
HFC-404A	171.46	178.05	123.69	306.68
HFC-410A	328.91	362.14	565.05	134.03
HFC-407A	0	0	1.13	22.94
HFC-407C	184.02	207.47	0	0
HFC-407F	0	0	2.57	0.51
HFC-507	127.85	129.13	52.50	51.50
HFC- 417A	7.47	7.51	0	0
HFC- 32	0	0	2.59	1.5
HFC-227ea	0	0	64.31	59.94
HFC-417	0	0	3.54	2.27
HFC-152	0	0	1.53	2.07
HFC-438	0	0	0.23	2.16
HFC-448	0	0	0.03	0
HFC-408	0	0	0	2
Total (Kg)	1,186.41	1,268.55	1,161.80	1,128.67

#### Main HFC Consumption in MT

#### 4. Based on the consumption data given above, please provide a description of the sector/subsector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The following table details the main refrigeration and air conditioning sub-sectors that consume HFCs (data available 2017 - 2020), these being the commercial refrigeration subsector and the commercial air conditioning subsector. However, the main uses of HFCs are distributed as follows:

The HFC consumption in MT increased only 4.87 % from 2017 to 2020, this slow increase was due to the pandemic of Covid-19 that reduced the economic activity during 2020. The main uses of HFCs are distributed as follows:

Sector	2020 %
MAC	23.06%
Commercial AC	6.15%
Residential AC	9.38%
Industrial AC	NA
Commercial Refrigeration	35.32%

Domestic Refrigeration	3.46%
Industrial Refrigeration	2.37%
Transport Refrigeration	14.95%
Fire Extinguishers	5.31%
Aerosols	0.18%

Studies performed during the implementation of the Kigali EA have shown the distribution of HFC consumption among the following sectors:

Sector	2017	2018	2019	2020	Total
MAC					
R-134a (HFC-134a)	175.7	184.1	165.2	260.2	785.2
Commercial AC					
R-134a (HFC-134a)	27.2	28.5	25.5	40.2	121.4
R-404A (HFC-404A)	9.9	10.2	7.1	17.62	44.82
Residential AC					
R-410A (HFC-410A)	240.4	264.7	413.1	97.9	1,016.1
R-32			2.6	1.5	4.1
Commercial Refrigeration					
R-134a (HFC-134a)	65.9	69.1	61.9	97.6	294.5
R-404A (HFC-404A)	126.4	131.2	91.2	226.0	574.8
R-407C (HFC-407C)	175.7	198.1	3.5	22.2	399.5
R-410A (HFC-410A)	41.8	46.1	71.9	17.05	176.8
R-417A (HFC-417A)	7.5	7.5	0	2.27	17.3
R-507A (HFC-507A)	88.2	89.1	36.2	35.53	249.0
Domestic Refrigeration					
R-134a (HFC-134a)	26.4	27.6	24.8	39.0	117.8
Industrial Refrigeration					
R-134a (HFC-134a)	0.5	0.5	0.5	0.7	2.2
R-410A (HFC-410A)	6.4	7.0	10.9	2.6	26.9
R-404A (HFC-404A)	13.0	13.5	9.41	23.3	59.2

R-407C (HFC-407C)	0.5	0.6	0.01	0.1	1.2
Transport Refrigeration					
R-134a (HFC-134a)	71.1	74.5	66.8	105.23	317.6
R-404A (HFC-404A)	22.2	23.0	16.0	39.7	100.9
R-507A (HFC-507A)	15.9	16.1	6.5	6.4	44.9
R-407C (HFC-407C)	7.9	8.9	0.2	1.0	18.0
R-410A (HFC-410A)	40.3	44.3	69.2	16.4	170.2
Others					
R-507A (HFC-507A)	23.7	23.9	9.72	9.5	57.3
R-227ea			64.3	59.94	124.2
R-152A			1.5	2.07	3.6
Other refrigerants (new blends)			3.7	14.16	17.9
Total	1,186.4	1,268.6	1,161.8	1,128.7	3,813.8

The table above sheds some light towards the main sectors that the phasedown plan should focus on, however, additional information towards the alternatives and strategies for the technologies to be introduced should be performed.

It is important to highlight that some new sectors have been appearing with regards to HFC usage in the Trinidadian markets, such as fire extinguishers. There is also a possibility that some aerosols may be filled in country. However, this information will need to be confirmed directly, as this is due to the consumption of HFC-227ea and HFC-152a respectively.

Finally, the MAC sector in Trinidad and Tobago played an important role during CFC phase-out but there have been no activities in this sector in the past 10 years as HCFCs are not used in MAC. It will be important to better understand the dynamics of this area as it is a key sector in the country.

5. Activities to be undertaken for project preparation and funding						
Activity	Indicative funding (US \$)	Lead Agency				
	60,000	UNDP				

TOTAL		
Activity	Indicative funding (US \$)	
TOTAL	150,000	
to reduce them.		
consumption of HFCs and to raise awareness of them in order		
involved, in order to present the results obtained on the		
Dissemination and awareness-raising actions for the actors	30,000	UNDP
•		
availability of alternatives in each sector.		
potential (GWP) of each substance, the uses, and the		
reductions (CO2-equiv.) according to the global warming		
sectors to prioritize. This will include the analysis of emission		
HFCs, which includes the evaluation and identification of		
Preparation of the national strategy for the gradual reduction of	20.000	UNDP
stakeholders and training institutions.		
training plan, and the organization of workshops with the main		
and hazardous refrigerants through the development of a		
needs at the country level in the use of flammable, high pressure		
Assessment of and the addressing of training and certification	40,000	UNDP

# 6. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?

The Stage II HPMP for Trinidad and Tobago was submitted and approved at the 86<sup>th</sup> meeting of the ExCom and HCFCs will be phased-out (100 %) by 2029 with the allowance of 2.5% from 2030 to 2040. The activities in the stage II HPMP focus on the sustainable phaseout in the use of HCFCs and, to the extent possible; to increase technical capacity for RRR network as well as promote the safe use of low GWP alternatives through the certification of technicians. The stage II HPMP for Trinidad and Tobago will be implemented by the Ministry of Planning and Development of Trinidad and Tobago.

It is expected that there will be synergies among the HPMP and the HFC phase-down. However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable /non-toxic technologies mainly the HFCs. The HFC phase down is a much more complex task as it requires inevitably the full scale introduction of flammable and/or toxic refrigerants in Trinidad and Tobago. The safe handling of these substances by ALL technicians in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update / introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.

UNDP recognizes that the main synergies are being achieved by coordinating all the activities through the same governmental entity –Ministry of Planning and Development– for both the HPMPs and the HFC phase down.

The funding request has been based on existing HCFC PRP funding guidelines. The government of Trinidad and Tobago and UNDP believe that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.