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COMITÉ EJECUTIVO DEL FONDO MULTILATERAL  
PARA LA APLICACIÓN DEL  
PROTOCOLO DE MONTREAL  
Sexagésima novena Reunión  
Montreal, 15 – 19 de abril de 2013

**INFORMES DE SITUACIÓN Y CUMPLIMIENTO**

## RESUMEN EJECUTIVO

El presente documento consta de seis partes. A continuación se presenta un resumen de las principales cuestiones y conclusiones:

- En 2011, se registró producción de CFC, CTC y metilbromuro en China. Se permitió la producción de CFC para exenciones para usos esenciales. Se permitió la producción de CTC para agentes de procesos y uso en laboratorio. La producción de metilbromuro estuvo por debajo del nivel básico del 20% requerido para 2011;
- Siete países que operan al amparo del Artículo 5 produjeron 35 034 toneladas PAO de HCFC, cinco produjeron menos HCFC que sus niveles básicos en 2011, y la mayor parte de la producción (32 106 toneladas PAO) se registró en China;
- La mayoría de los países registran un consumo nulo de las sustancias restantes (excluidos los HCFC y los usos exentos) y 25 países notificaron un consumo de metilbromuro superior a los límites de control para 2015;
- No parece que haya ningún país en situación de incumplimiento de las medidas de control conforme a los datos de 2011 notificados con arreglo al Artículo 7 y/o de programa de país presentados al 1 de marzo de 2013;
- Todos los países admisibles han recibido financiación para la preparación de planes de gestión para la eliminación de los HCFC, excepto Sudán del Sur; dicho país ha ratificado todas las enmiendas al Protocolo de Montreal y en el plan administrativo para 2013 se han incluido fondos para preparación, que estará a cargo del PNUMA;
- Ocho países que operan al amparo del Artículo 5 no han recibido fondos para planes de gestión de la eliminación de los HCFC, pero se ha presentado solo un plan de gestión de la eliminación de los HCFC para solamente uno de estos a la 69ª reunión;
- El consumo de HCFC de 2011 o 2012 para 79 países se encontró por debajo de su nivel básico de consumo;
- Siete países presentarán (Libia, Mauritania, Sudán del Sur y Túnez) o volverán a presentar (la República Popular Democrática de Corea, Botswana y la República Árabe Siria) sus planes de gestión de la eliminación de los HCFC después de la 69ª reunión;
- De las tres cuestiones relacionadas con el cumplimiento planteadas, dos ya han sido resueltas según los datos notificados con arreglo al Artículo 7; según la información proporcionada por los organismos de ejecución y la Secretaría del Ozono, una de estas cuestiones no se ha notificado como resuelta;
- Los datos sobre la ejecución de los programas de país indican que:
  - De los 143 países que debían notificar datos de los programas de país, 138 notificaron datos de 2011 y 81 países presentaron datos usando el sistema basado en la Web;
  - El total de las 830,3 toneladas PAO de consumo remanente corresponde a consumo de metilbromuro;
  - Los precios del HCFC-22 y el HCFC-142b son más bajos que aquellos de los productos de alternativa incluidos en los datos de programa de país. Los precios del HCFC-141b son más bajos

que los productos de alternativa HCFC-245fa y HFC-356mfc, pero son más altos que los precios del ciclopentano y el pentano en relación con los precios de 2011;

- El Comité Ejecutivo ha abordado el 24% del nivel básico de consumo de HCFC por medio de proyectos aprobados;
- Para los 147 países que notificaron datos de 2010 y 2011, el consumo de HCFC aumentó el 0,05%;
- De los 144 países que debían presentar información acerca de los sistemas de concesión de licencias, 135 han notificado que dichos sistemas se encuentran en funcionamiento (130 de los 138 países que presentaron datos de 2011 contaban con sistemas de concesión de licencias en funcionamiento, y 5 indicaron que sus sistemas de concesión de licencias “no funcionaban muy bien”, y proporcionaron los motivos correspondientes en su respuesta a la 68ª reunión);
- Setenta y un países indicaron que tenían vigentes sistemas de cuotas para las medidas de control de los HCFC;
- De los 25 proyectos con demoras en la ejecución, 11 se han recomendado para supervisión continua;
- Se recomendó además que se presentasen informes adicionales para 47 proyectos para los que se presentaron informes de situación a la presente reunión, recomendándose además un informe adicional sobre la actividad de preparación de un plan de gestión de la eliminación de los HCFC.

## Introducción

1. Este documento consta de seis partes:
  - a) La parte I se ha preparado atendiendo a las decisiones 32/76 b), 46/4 y 67/6 c), en las que se pedía a la Secretaría que preparase una actualización, para cada reunión del Comité Ejecutivo, de la situación de cumplimiento en los países que operan al amparo del Artículo 5 que están sujetos a las medidas de control del Protocolo de Montreal y como una guía para la planificación administrativa para el cumplimiento relacionado con los HCFC.
  - b) La parte II contiene información acerca de aquellos países que operan al amparo del Artículo 5 que están sujetos a decisiones de las Partes acerca del cumplimiento.
  - c) En la parte III se presentan datos sobre la ejecución de los programas de país, incluido un análisis de los datos de consumo de sustancias que agotan la capa de ozono (SAO) por sector. También incluye una sección que se ocupa de las características de los programas de eliminación de SAO nacionales.
  - d) La parte IV presenta los resultados de la información sobre proyectos con demoras en la ejecución y para los que se pidieron informes de situación especiales o informes detallados específicos.
  - e) En la parte V se presenta el informe de la ONUDI sobre el plan de eliminación de CTC en República Popular Democrática de Corea en respuesta a la decisión 68/34 b).
  - f) La parte VI contiene informes sobre movilización de recursos.
2. La parte V se expedirá como una adición al presente documento en una versión limitada.
3. El análisis realizado y las conclusiones del presente documento no van en perjuicio en modo alguno de la situación de cumplimiento que determine la Reunión de las Partes, único órgano facultado para ello. Los datos notificados de conformidad con el Artículo 7 del Protocolo se utilizan exclusivamente para determinar la situación de los países respecto del cumplimiento cada año. El análisis que se realiza en este documento utiliza una combinación de datos notificados a la Secretaría del Fondo sobre la ejecución de los programas de país para diversos períodos de cumplimiento y datos notificados con arreglo al Artículo 7. Por lo tanto, este documento no determina el cumplimiento *per se*. Por el contrario, evalúa las perspectivas de los esfuerzos de los países que operan al amparo del Artículo 5 por cumplir lo estipulado por una o más medidas de control del Protocolo de Montreal. Su principal finalidad es identificar las SAO que aún deben ser abordadas con medidas apoyadas por el Fondo Multilateral.

## **PARTE I: SITUACIÓN Y PERSPECTIVAS DE CUMPLIMIENTO (SEGÚN LOS DATOS MÁS RECIENTES DISPONIBLES)**

4. Esta sección presenta los resultados obtenidos del análisis de la situación de cumplimiento, además de las medidas de control para la eliminación definitiva de los clorofluorocarbonos (CFC), halones y tetracloruro de carbono (CTC) para 2010, de metilbromuro y 1,1,1-tricloroetano (TCA)<sup>1</sup> para 2015, y de la congelación del consumo de HCFC para 2013. En el análisis se presupone que en el consumo más reciente notificado en virtud del Artículo 7 y en los datos de programa de país se han tenido en cuenta los datos de eliminación resultantes de los proyectos ya terminados que fueron aprobados por el

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<sup>1</sup> No se ha identificado ningún proyecto que se ocupe de las sustancias incluidas en el Anexo B-1; el Comité Ejecutivo no ha examinado ni financiado ningún proyecto en relación con estas sustancias, a las que se aplica desde 2007 una reducción del umbral de consumo del 85%.

Comité Ejecutivo. Desde la creación del Fondo Multilateral hasta diciembre de 2011, se habían eliminado 242 954 toneladas PAO de consumo y 191 936 toneladas PAO de producción con proyectos completados. Los proyectos completados se valoraron en 2 060 millones de \$EUA dentro de un total aprobado de aproximadamente 2 610 millones de \$EUA. En el documento UNEP/OzL.Pro/ExCom/37/18, que se presentó en la 37ª reunión del Comité Ejecutivo, se describe detalladamente la metodología empleada en el análisis.

5. Para este análisis, se utilizaron los datos más recientes disponibles. Al 1 de marzo de 2013, un país que opera al amparo del Artículo 5 había notificado datos de 2012 con arreglo al Artículo 7, y 145 países habían notificado datos para 2011 (en comparación con 141 en marzo de 2012). Otro país notificó a la Secretaría del Fondo datos de 2012 relativos únicamente a progresos en la ejecución de los programas de país (decisión 17/34). El análisis presupone que los niveles de consumo de SAO más recientes notificados, excluidos los HCFC, no han aumentado.

6. Los organismos de ejecución bilaterales y multilaterales presentaron a la 67ª reunión del Comité Ejecutivo informes anuales sobre la marcha de las actividades, en los cuales suministraron datos sobre la situación de la ejecución de todas las actividades y los proyectos aprobados por el Comité hasta fines de 2011. Los datos sobre las posibles aprobaciones en 2013 se han tomado del *Plan administrativo refundido del Fondo Multilateral para 2013-2015 (UNEP/OzL.Pro/ExCom/69/6)*, que se examinará en la 69ª reunión.

7. La Secretaría del Fondo seguirá sintetizando todos los datos incluidos en las versiones previas de los informes sobre la situación y perspectivas de cumplimiento que hayan sido utilizados por la Secretaría del Fondo con fines analíticos. Estos datos están disponibles a pedido.

## **SISTEMAS DE CONCESIÓN DE LICENCIAS Y ENMIENDAS DE MONTREAL Y BEIJING**

8. La Secretaría del Ozono ha proporcionado una actualización de los datos sobre el establecimiento de sistemas de concesión de licencias al 8 de marzo de 2013. Indica que solamente Botswana, Gambia y Sudán del Sur tienen cuestiones pendientes en relación con el establecimiento de sistemas de concesión de licencias. Se debe señalar que Botswana y Sudán del Sur ratificaron la Enmienda de Montreal al Protocolo de Montreal el 21 de febrero de 2013 y el 16 de octubre de 2012 respectivamente y que estos países cuentan con un plazo de seis meses desde la fecha de la ratificación de la enmienda para establecer sistemas de concesión de licencias. En el caso de Gambia, el Comité Ejecutivo pudiera tomar nota de que, según un informe del PNUMA, el reglamento revisado sobre SAO de Gambia guarda conformidad con el Artículo 4B del Protocolo e incluye la concesión de licencias de exportación. Sin embargo, conforme a la información más reciente recibida por la Secretaría del Ozono, este logro no había sido notificado conforme a lo requerido por la decisión XXIV/17.

9. Al 21 de febrero de 2013, las siguientes Partes que operan al amparo del Artículo 5 no habían ratificado la Enmienda de Beijing: Arabia Saudita, Libia, Mauritania y Papua Nueva Guinea, pero habían proporcionado datos con arreglo al Artículo 7 para 2011.

## **SECTOR DE PRODUCCIÓN**

10. En el cuadro 1 se muestran los datos de producción más recientes, excluidos los HCFC, en los países que operan al amparo del Artículo 5.

Cuadro 1

**PRODUCCIÓN DE SAO POR PAÍS (2011) Y NIVEL BÁSICO DE REFERENCIA**

<b>País</b>	<b>Sustancia química</b>	<b>Fuente</b>	<b>Nivel básico de referencia</b>	<b>Producción más reciente</b>
China	CFC	Art. 7	47 003,9	339,0
China	CTC	Art. 7	32 479,7	258,7
China	Metilbromuro	Art. 7	776,3	174,8

11. De los siete<sup>2</sup> países que operan al amparo del Artículo 5 que disponen de instalaciones para la producción de CFC, los Gobiernos de la Argentina, China, la India, la República Popular Democrática de Corea, México y Venezuela (República Bolivariana de) han concertado acuerdos para llevar a cabo las reducciones previstas. Todos los proyectos para el sector de producción de CFC ya se han completado, pero continúan presentándose informe para China conforme al acuerdo modificado para permitir la producción de CFC para usos esenciales fuera de China y para parte del tramo restante para la India que se ha presentado a la presente reunión para su aprobación. El Gobierno del Brasil indicó que eliminó por cuenta propia la producción de CFC. Para la producción de halones, el Gobierno de China tiene un acuerdo vigente, y el Gobierno de la India recibió una donación por única vez para el cierre de sus instalaciones de producción de halones. China fue el único país con producción de CFC en 2011; esta ascendió a 339 toneladas PAO. China tiene una exención para usos esenciales para 741,15 toneladas PAO para inhaladores de dosis medidas conforme a la decisión XXII/4.

12. Cuatro países (Brasil, China, la India y la República Popular Democrática de Corea) tienen establecido un nivel básico de referencia para la producción de CTC. El Comité Ejecutivo ya ha aprobado proyectos para la eliminación definitiva del CTC en los sectores de producción y consumo para tres países (China, la República Popular Democrática de Corea y la India). En la 54ª reunión se aprobó un proyecto para el sector de agentes de proceso de CTC en el Brasil. En 2011, se produjeron 258,7 toneladas PAO de CTC en China. La Secretaría del Ozono indicó que se usaron 179,92 toneladas PAO para agentes de procesos (permitido conforme a la decisión XXII/8) y 235,14 toneladas PAO se utilizaron para usos en laboratorio (permitido conforme a la decisión XXII/7). Dos de las cuatro plantas aún están en funcionamiento y producen CFC para materias primas y agentes de proceso. El Brasil llevó a cabo la eliminación sin asistencia del Fondo Multilateral. Se cerró la planta de CFC de la República Popular Democrática de Corea.

13. Solo se aprobaron proyectos para el cierre de las instalaciones de producción de TCA en China. En 2011, no se registró producción de TCA en los países que operan al amparo del Artículo 5.

14. Se aprobaron proyectos para el cierre de la producción de metilbromuro para China, que es ahora uno de los dos únicos países que operan al amparo del Artículo 5 con instalaciones de producción de metilbromuro. El segundo es la República de Corea, que no solicita asistencia del Fondo. En 2011, se produjeron 174,8 toneladas PAO de metilbromuro en China; esto se encuentra dentro del límite de control del 80% del nivel básico (776,3 toneladas PAO) y el límite de 176 toneladas PAO de su acuerdo para el sector de producción (decisión 47/54).

15. Hay siete países que produjeron HCFC en 2011: Argentina, China, India, México, República de Corea, República Popular Democrática de Corea y Venezuela (República Bolivariana de).

<sup>2</sup> Si bien Rumania recibió financiación para la eliminación de la producción y el consumo total de CFC, CTC y metilbromuro, dicho país no se ha incluido debido a que el 1 de enero de 2008 fue reclasificado como país que no opera al amparo del Artículo 5.

Cuadro 2

**PRODUCCIÓN DE HCFC POR PAÍS (2011) Y NIVEL BÁSICO DE REFERENCIA  
(TONELADAS PAO)**

<b>Parte</b>	<b>Fuente</b>	<b>Producción en 2011</b>	<b>Nivel básico de referencia</b>	<b>Consumo más reciente menos nivel básico</b>
Argentina	Art. 7	221,0	224,6	(3,6)
China	Art. 7	32 106,1	29 122,0	2 984,1
República Popular Democrática de Corea	Art. 7	26,4	27,6	(1,2)
India	Art. 7	1 504,0	2 399,5	(895,5)
México	Art. 7	649,7	697,0	(47,3)
República de Corea	Art. 7	392,4	395,1	(2,7)
Venezuela (República Bolivariana de)	Art. 7	134,3	123,1	11,2
<b>Total</b>		<b>35 033,9</b>	<b>32 988,9</b>	<b>2 045,0</b>

16. En general, la producción de HCFC de 2011 en los países que operan al amparo del Artículo 5 (35 033,9 toneladas PAO) excede 2 045 toneladas PAO el nivel básico de producción total de dichos países (32 988,9). La mayor parte de este se debe a la producción en China, que excede 2 984,1 toneladas PAO su nivel básico, mientras que cuatro países productores (la Argentina, la República de Corea, México y la República Popular Democrática de Corea) produjeron menos que su nivel básico en 2011.

17. El Subgrupo sobre el sector de producción está considerando directrices para el sector de producción de HCFC. Las plantas con proceso cambiante que anteriormente recibían financiación para la eliminación de los CFC actualmente no resultan admisibles para recibir financiación adicional para el cierre de la producción de HCFC conforme a sus acuerdos de eliminación de CFC con el Comité Ejecutivo. Esto se aplica a la Argentina, China, India, México y Venezuela (República Bolivariana de). La República de Corea no ha solicitado financiación como país que opera al amparo del Artículo 5.

18. El Comité Ejecutivo recibió una solicitud para la etapa I del plan de gestión de la eliminación de los HCFC del Banco Mundial en nombre del Gobierno de China. El Subgrupo sobre el sector de producción está considerando la propuesta.

## **SECTOR DE CONSUMO**

19. En esta sección se presenta un resumen de los resultados de un análisis detallado del grado en que los países parecen encontrarse en situación de incumplimiento o para los que el consumo más reciente excede lo permitido por las medidas de control. Los cuadros de resumen siguientes indican que todos los países que operan al amparo del Artículo 5 parecen encontrarse en situación de cumplimiento de las medidas de control para 2010 conforme a los datos de 2012 para los CFC, los halones, el CTC y el TCA. También se indican los datos de consumo para las medidas de control siguientes para el metilbromuro y los HCFC, incluidos datos para 2011. Los datos sobre los que se basa este resumen se incluyen en el Anexo I, que contiene información detallada, desglosada por sustancia.

20. Los apéndices en los que se aborda la situación de todos los países para las seis sustancias en total se proporcionaron en el Anexo I anterior de este documento. Sobre la base de dicho informe, se proporciona información solamente para aquellos países en los que se registra consumo de CFC, CTC y TCA. Se proporcionan actualmente apéndices en los que incluyen todos los países para el metilbromuro y

los HCFC en aquellos casos en que aún no se requiere la eliminación completa. No se proporciona un apéndice para los halones dado que el consumo más reciente de todos los países que operan al amparo del Artículo 5 es nulo.

21. Se ha incluido información en la evaluación del cumplimiento en el Anexo I cuando se había aprobado una actividad que permitía cumplir con lo estipulado. Esta información debería brindar asistencia al Comité Ejecutivo para evaluar las perspectivas de cumplimiento de los países, dado que la fecha de aprobación indica cuánto tiempo ha durado la ejecución del proyecto o del acuerdo. La información sobre aprobación de proyectos se ha tomado del Inventario de proyectos aprobados.

## CFC

22. En el cuadro 3 se presenta un resumen de la situación de los países en relación con el cumplimiento de las medidas de control de los CFC.

Cuadro 3

**MEDIDAS DE CONTROL DE LOS CFC:  
RESUMEN DE LOS PAÍSES CUYOS DATOS MÁS RECIENTES DE CONSUMO  
EXCEDEN LO PERMITIDO POR LA MEDIDA DE CONTROL PARA 2010**

Datos	Países cuyo consumo más reciente excede el objetivo de eliminación del 100% para 2010
Datos de 2012 (Art. 7 o programa de país)	Ningún país*
Consumo más reciente	Ningún país*

\*Excluidos los países con exenciones.

23. En el Apéndice I del Anexo I se presenta información sobre aquellos países donde se registra consumo de CFC. Indica que dichos países tenían exenciones para usos esenciales de CFC o uso esencial de emergencia para el CFC-113.

## Halones

24. En el cuadro 4, se presenta un resumen de la situación de los países respecto del cumplimiento de las medidas de control previstas para los halones. Sesenta y un países han recibido apoyo para actividades de bancos de halones o acuerdos de eliminación, incluidos a los países que participan en bancos de halones regionales. Ningún país ha notificado consumo de halones en sus informes de datos más recientes.



Cuadro 4

**MEDIDAS DE CONTROL DE HALONES:  
RESUMEN DE LOS PAÍSES CUYOS DATOS MÁS RECIENTES DE CONSUMO  
EXCEDEN LO PERMITIDO POR LA MEDIDA DE CONTROL PARA 2010**

Datos	Países cuyo consumo más reciente excede el objetivo de eliminación del 100% para 2010
Datos de 2012 (Art. 7 o programa de país)	Ningún país
Consumo más reciente	Ningún país

### Metilbromuro

25. En el cuadro 5 se presenta un resumen de la situación de los países con respecto al cumplimiento de las medidas de control para el metilbromuro (excluidos usos de cuarentena y previas al envío). De los 147 países que operan al amparo del Artículo 5 que han ratificado la Enmienda de Copenhague, 145 suministraron datos de nivel básico de referencia completos; 58 notificaron un consumo nulo tanto para el consumo básico como para el consumo más reciente. Cien países que operan al amparo del Artículo 5 recibieron ayuda del Fondo Multilateral para actividades y/o proyectos relacionados con la eliminación del metilbromuro.

Cuadro 5

**MEDIDAS DE CONTROL DE METILBROMURO:  
RESUMEN DE LOS PAÍSES CUYOS DATOS MÁS RECIENTES DE CONSUMO  
EXCEDEN LO PERMITIDO POR LAS MEDIDAS DE CONTROL SIGUIENTES\***

Datos	Países cuyo consumo más reciente excede el objetivo de reducción de metilbromuro del 20% para 2005	Países cuyo consumo más reciente excede el objetivo de eliminación del 100% para 2015
Datos de 2012 (Art. 7 o programa de país)	Ningún país	Ningún país
Consumo más reciente	Ningún país	25 países

\* Este cuadro se refiere a los 145 países que operan al amparo del Artículo 5 que notificaron datos de nivel básico de referencia y de consumo más reciente.

26. En el Apéndice II del Anexo I se presenta información sobre aquellos países donde se registra consumo de metilbromuro.

- Nueve países (Argelia, Argentina, China, el Congo, Nigeria, la República Democrática del Congo, el Sudán, Swazilandia y Turquía) tienen proyectos de eliminación parcial de metilbromuro<sup>3</sup> que ya han sido aprobados por el Comité Ejecutivo, y un país (Túnez) solamente ha recibido financiación para un proyecto de demostración. Estos países registran un consumo admisible remanente de 823,7 toneladas PAO;
- Cinco de los nueve países han notificado un consumo nulo durante más de un año (el Congo, Nigeria, la República Democrática del Congo, Swazilandia y Turquía);
- En 18 países hay proyectos de inversión que aún se encuentran en ejecución;

<sup>3</sup> China tiene un proyecto de eliminación total de metilbromuro con posibilidades de un proyecto para el ginseng si de admite en el futuro.

- Habrá preparación de proyecto disponible para elaborar proyectos para el tratamiento de dátiles con alto contenido de humedad en Argelia y Túnez, que actualmente están exentos para el uso conforme a la decisión XV/12, cuando haya alternativas disponibles.

27. El Comité Ejecutivo pudiera pedir a los organismos de ejecución que consideren si se requieren otros proyectos de metilbromuro en los siguientes países que tienen proyectos de eliminación parcial de metilbromuro o bien están comprendidos en la decisión XV/12: Argelia, Argentina, China, Congo, Nigeria, República Democrática del Congo, Sudán, Swazilandia, Túnez y Turquía.

### **Países que han excedido los objetivos de consumo de metilbromuro establecidos en sus acuerdos**

28. La Secretaría examinó los datos de consumo de metilbromuro notificados con arreglo al Artículo 7 del Protocolo de Montreal y observó que los países que han recibido asistencia para eliminar los usos controlados del metilbromuro cumplieron las medidas de reducción siguientes. No obstante, aparentemente, cuatro países (la Argentina, Egipto, Kenya y Marruecos) excedieron el nivel de consumo máximo permitido establecido en sus acuerdos con el Comité Ejecutivo para el año 2011, según se muestra en el cuadro a continuación:

#### Uso de metilbromuro en 2011

Países	Consumo (toneladas PAO)	
	Permitido conforme al Acuerdo	Notificado (Artículo 7)
Argentina	184,4	291,3
Egipto	116,4	133,2
Kenya	6,6	8,5
Marruecos	28,0	50,9

29. Basándose en estos datos, la Secretaría pidió a la ONUDI, en su calidad de organismo de ejecución principal, que proporcionase el nivel de consumo de metilbromuro estimado en 2012 para los países antes mencionados, junto con una explicación del motivo del nivel de consumo de metilbromuro más elevado que el indicado en los acuerdos, y los planes de acción propuestos para cumplir los objetivos establecidos en los acuerdos correspondientes.

30. En el caso de Kenya, la ONUDI informó de que había recibido una carta del gobierno, de fecha 15 de febrero de 2013, en la que indicaba para el consumo estimado de metilbromuro era nulo. Asimismo, el proyecto se completará antes de fines de 2013 y el informe de terminación de proyecto se presentará en 2014. La ONUDI también indicó que la prohibición de la importación de metilbromuro se abordará en los reglamentos del país.

31. En el caso de Egipto, la ONUDI informó que de, debido a la situación política y social única que se había experimentado en el país en 2011, la ejecución del proyecto estaba demorada, no se habían aplicado plenamente los controles de importación, por lo que se había importado en el país una cantidad de metilbromuro más alta, y se había producido una demora en el proceso de registro de fumigantes de alternativa. Por consiguiente, no se había podido cumplir los objetivos de eliminación propuestos en el acuerdo. Sobre la base de estos datos, el Gobierno de Egipto notificó a la ONUDI su intención de pedir una prórroga de un año para el proyecto, sin financiación adicional del Fondo Multilateral. El Gobierno y la ONUDI aún están llevando a cabo consultas acerca de esta cuestión.

32. En el caso de Marruecos, la ONUDI informó de que todos los componentes de proyecto incluidos en el acuerdo entre el gobierno y el Comité Ejecutivo se habían ejecutado en forma satisfactoria y estaban prácticamente terminados. En el caso de las cucurbitáceas (es decir, melones y sandías), que representaban el proyecto aprobado más recientemente, se habían llevado a cabo todas las actividades y los agricultores estaban produciendo sin utilizar metilbromuro. Por consiguiente, la ONUDI esperaba que

el consumo de metilbromuro para 2012 fuera inferior a aquel permitido conforme al acuerdo. Sin embargo, este no había sido el caso, dado que los datos notificados con arreglo al Artículo 7 del Protocolo eran alrededor de 22 toneladas PAO superiores al consumo permitido. El Gobierno y la ONUDI aún están llevando a cabo consultas acerca de esta cuestión.

33. En el caso de la Argentina, la ONUDI indicó que el proyecto aún se encontraba en ejecución; la mayor parte del metilbromuro se usa actualmente para la producción de fresas (viveros y frutos). La ONUDI informó de que los datos de consumo de SAO (incluido el metilbromuro) basados sobre el sistema de concesión de licencias son notificados por la dependencia nacional del ozono a la Secretaría del Ozono (conforme al Artículo 7 del Protocolo) y a la Secretaría del Fondo (en el informe de progresos en la ejecución del programa de país). Los datos de consumo de metilbromuro notificados incluían las cantidades importadas para usos controlados y para aplicaciones de cuarentena y previas al envío. Sin embargo, el proyecto de metilbromuro para la Argentina está siendo ejecutado por el Instituto Nacional de Tecnología Agropecuaria (INTA) del Ministerio de Agricultura. El ministerio es responsable de controlar el consumo real del metilbromuro utilizado por los agricultores en relación con el proyecto. La ONUDI también explicó que también parece haber algunas discrepancias entre las cantidades de metilbromuro notificadas oficialmente para usos reales (para aplicaciones tanto controladas como de cuarentena y previas al envío) y las reservas, y que la cuestión se está analizando más a fondo con las autoridades correspondientes.

34. El Comité Ejecutivo pudiera pedir a la ONUDI que presente a la 70ª reunión un informe de progresos con la situación actual de la ejecución de los proyectos de metilbromuro en la Argentina, Egipto y Marruecos, incluyendo una explicación detallada acerca de por qué los niveles de consumo notificados con arreglo al Artículo 7 del Protocolo de Montreal en 2011 son superiores a aquellos permitidos en los respectivos acuerdos con el Comité Ejecutivo y los planes de acción propuestos para cumplir los objetivos conforme a lo requerido en dichos acuerdos.

### **Tetracloruro de carbono**

35. En el cuadro 6 se presenta un resumen de la situación de cumplimiento de los países de las medidas de control de CTC. Los datos resumidos excluyen las materias primas y no establecen diferencias sobre su uso final específico (tales como solventes y agentes de proceso). Entre los 146 países que comunicaron datos de niveles básicos de referencia, 90 notificaron un consumo nulo tanto para el nivel básico de referencia como para el consumo más reciente.

Cuadro 6

**MEDIDAS DE CONTROL DE TETRACLORURO DE CARBONO:  
RESUMEN DE LOS PAÍSES CUYOS DATOS MÁS RECIENTES DE CONSUMO  
EXCEDEN LO PERMITIDO POR LA MEDIDA DE CONTROL PARA 2010**

Datos	Países cuyo consumo más reciente excede el objetivo de eliminación del 100% para 2010
Datos de 2012 (Art. 7 o programa de país)	Ningún país*
Consumo más reciente	Ningún país*

\* Excluidos los países con exenciones y aquellos que no solicitan apoyo del Fondo Multilateral.

36. En el Apéndice III del Anexo I se presenta información sobre aquellos países donde se registra consumo de CTC. Indica que los países en los que se registra consumo tenían exenciones para usos en procesos o de laboratorio y análisis.

### 1,1,1-tricloroetano (TCA)

37. En el cuadro 7 se presenta un resumen de la situación de los países con respecto al cumplimiento de las medidas de control del TCA. Entre los 146 países que suministraron datos de nivel básico de referencia, 103 notificaron un consumo nulo tanto para el nivel básico de referencia como para el consumo más reciente.

Cuadro 7

**MEDIDAS DE CONTROL DEL TCA:  
RESUMEN DE LOS PAÍSES CUYOS DATOS MÁS RECIENTES DE CONSUMO  
EXCEDEN LO PERMITIDO POR LAS MEDIDAS DE CONTROL SIGUIENTES**

Datos	Países cuyo consumo más reciente excede el objetivo de reducción de TCA del 70% para 2010	Países cuyo consumo más reciente excede el objetivo de reducción de TCA del 100% para 2015
Datos de 2012 (Art. 7 o programa de país)	Ningún país	Ningún país
Consumo más reciente	Ningún país	República de Corea

38. La República de Corea, el único país cuyos datos de consumo más reciente exceden las medidas de control siguientes, ha convenido en no recibir financiación del Fondo Multilateral.

39. En el Apéndice IV del Anexo I se presenta información sobre aquellos países donde se registra consumo de TCA.

### Consumo de HCFC

40. En el Apéndice V del Anexo I se incluye un análisis de los datos de consumo más reciente para los HCFC y las aprobaciones por país. Se ha proporcionado información adicional para indicar los planes de gestión de la eliminación de los HCFC aprobados hasta la fecha, aquellos presentados a la 69ª reunión y la duración cubierta por el plan (como, por ejemplo, los planes de gestión de la eliminación de los HCFC aprobados para alcanzar la reducción del 10% en 2015 o para alcanzar la reducción del 35% en 2020).

41. Todos los países han recibido fondos de preparación de proyecto para planes de gestión de la eliminación de los HCFC, excepto los Emiratos Árabes Unidos, la República de Corea, Singapur y Sudán del Sur. Los fondos de preparación de plan de gestión de la eliminación de los HCFC incluyen financiación para un sistema de concesión de licencias para abordar las medidas de control de los HCFC. Los Emiratos Árabes Unidos, la República de Corea y Singapur habían convenido en no solicitar financiación del Fondo Multilateral.

42. Todos los países han ratificado la Enmienda de Copenhague. La ratificación de dicha enmienda es condición necesaria para la financiación de los planes de gestión de la eliminación de los HCFC conforme a la decisión 53/37. El Comité Ejecutivo ha aprobado hasta la fecha planes de gestión de la eliminación de los HCFC para 137 países, por un valor de 556,3 millones de \$EUA (de los cuales se han liberado 308,1 millones de \$EUA).

43. La duración de la ejecución de la etapa I de los planes de gestión de la eliminación de los HCFC es, como mínimo, la necesaria para alcanzar la reducción del 10% en 2015 o más prolongada:

- Veintisiete países (7 países de bajo volumen de consumo, 20 países que no son de bajo consumo) abordan el cumplimiento para el período de 2011 a 2015;

- Ciento un países (57 países de bajo volumen de consumo y 32 países que no son de bajo volumen de consumo más los 12 países insulares del Pacífico) abordan el cumplimiento para el período de 2011 a 2020;
- Nueve países de bajo volumen de consumo (Bhután, Camboya, Croacia, las Maldivas, Mauricio, Namibia, Papua Nueva Guinea, San Vicente y las Granadinas y las Seychelles) han recibido financiación para la eliminación completa de los HCFC con gran antelación a la eliminación prevista para 2040; p. ej., Croacia antes de 2014 y los otros países antes de 2020 o 2025.

44. Siete de los ocho países restantes no han recibido financiación para un plan de gestión de la eliminación de los HCFC además de los fondos de preparación de proyecto. El otro país es Sudán del Sur, que ha ratificado todas las enmiendas al Protocolo de Montreal y no ha presentado datos que le permitirían resultar admisible para recibir financiación para un plan de gestión de la eliminación de los HCFC. Sin embargo, Sudán del Sur cuenta con un proyecto aprobado en la 68ª reunión para el establecimiento de su dependencia nacional del ozono. Se presentó a la 69ª reunión un plan de gestión de la eliminación de los HCFC para Barbados.

Cuadro 8

**PAÍSES QUE OPERAN AL AMPARO DEL ARTÍCULO 5 QUE NO TIENEN UN PLAN DE GESTIÓN DE LA ELIMINACIÓN DE LOS HCFC APROBADO (TONELADAS PAO)**

País	Nivel básico de referencia	Punto de partida	Todos los proyectos aprobados	Cantidad restante	% aprobado
Barbados*	3,7			3,7	
Botswana	11,0			11,0	
República Popular Democrática de Corea	78,0			78,0	
Libia	114,7			114,7	
Mauritania	20,5			20,5	
Sudán del Sur	NND			NND	
República Árabe Siria	135,0	135,0	12,9	122,1	9,56%
Túnez	40,7			40,7	
<b>Total</b>	<b>3 865,2</b>	<b>2 452,9</b>	<b>526,0</b>	<b>3 372,0</b>	

\* Países para los que se presentó un plan de gestión de la eliminación de los HCFC a la 69ª reunión.

NND = No notificó datos.

45. Se incluyeron planes de gestión de la eliminación de los HCFC de etapa I en los planes administrativos para 2013-2015 para todos los países que aún no han presentado sus planes de gestión de la eliminación de los HCFC (Libia, Mauritania, la República Árabe Siria, la República Popular Democrática de Corea y Túnez) excepto Botswana. En el documento sobre los planes administrativos de los organismos bilaterales para los años 2013-2015 (UNEP/OzL.Pro/ExCom/69/7) se incluye la recomendación de instar a los organismos bilaterales y de ejecución a incluir un plan de gestión de la eliminación de los HCFC de etapa I en sus planes administrativos para Botswana.

46. Como se indica en el cuadro 9, un país ya tiene proyectos de inversión aprobados para la eliminación de los HCFC que lograrán entre el 10% de reducción de su nivel básico sin una plan de gestión de la eliminación de los HCFC de etapa I aprobado.

Cuadro 9

**PAÍSES QUE LOGRARÁN UNA ELIMINACIÓN IMPORTANTE CON PROYECTOS DE INVERSIÓN PARA HCFC APROBADOS SIN UN PLAN DE GESTIÓN DE LA ELIMINACIÓN DE LOS HCFC DE ETAPA I APROBADO**

País	Fondos aprobados (\$EUA)	Eliminación de PAO en proyectos de inversión aprobados	Nivel básico de referencia	Porcentaje del nivel básico aprobado
República Árabe Siria	1 465 361	12,9	135,0	10%

47. Ciento cuarenta y siete países que operan al amparo del Artículo 5 han notificado tanto el nivel básico como el consumo más reciente al 1 de marzo de 2013. Los datos de consumo para 2011 o 2012 de 79 son inferiores a su nivel básico de referencia.

48. En el cuadro 10 se presenta un resumen de la situación de los países con respecto al cumplimiento de las medidas de control de los HCFC.

Cuadro 10

**MEDIDAS DE CONTROL DE LOS HCFC:  
RESUMEN DE LOS PAÍSES CUYOS DATOS MÁS RECIENTES DE CONSUMO EXCEDEN LO PERMITIDO POR LAS MEDIDAS DE CONTROL SIGUIENTES**

Datos	Países cuyo consumo más reciente excede el objetivo de reducción de congelación para 2013
Datos de 2012 (Art. 7 o programa de país)	Un país
Consumo más reciente	68 países

49. De estos 68 países, 63 han recibido financiación del Fondo Multinacional para cumplir con los acuerdos de eliminación de HCFC.

**PARTE II: SITUACIÓN DE LA EJECUCIÓN EN LOS PAÍSES SUJETOS A LAS DECISIONES DE LAS PARTES**

50. Esta sección se ocupa de los países que operan al amparo del Artículo 5 que están sujetos a decisiones en materia de cumplimiento.

51. Hay tres decisiones de las Partes relacionadas con el cumplimiento que se aplican a tres países. Dos cuestiones relacionadas con el cumplimiento planteadas ya han sido resueltas según los datos notificados con arreglo al Artículo 7; según la información proporcionada por los organismos de ejecución y la Secretaría del Ozono, una de estas cuestiones, relacionada con los sistemas de concesión de licencias, no se ha notificado como resuelta. En el cuadro 11 se indica el grado de progreso alcanzado respecto de las decisiones de la Reunión de las Partes en el Protocolo de Montreal según la información suministrada por la Secretaría del Ozono y los organismos.

Cuadro 11

**CUMPLIMIENTO DE LAS DECISIONES DE LAS PARTES EN MATERIA DE  
CUMPLIMIENTO, SEGÚN LA INFORMACIÓN NOTIFICADA**

<b>Cuestiones relacionadas cumplimiento</b>	<b>Logrado según los datos del Art. 7</b>	<b>Notificado al organismo de ejecución y/o la Secretaría del Ozono como logrado</b>	<b>No logrado o logro no notificado al organismo de ejecución y/o la Secretaría del Ozono</b>	<b>Total</b>
Sistema concesión de licencias			1	1
Notificación de datos	2			2
<b>Total</b>	<b>2</b>		<b>1</b>	<b>3</b>

**Información que figura en el Anexo II**

52. El Anexo II contiene información sobre los países sujetos a decisiones de las Partes acerca del cumplimiento en 2013. Esta información se ha organizado por cuestión relacionada con el cumplimiento y por país. El Anexo II incluye también dos columnas tituladas “Observaciones del organismo de ejecución para la 69ª reunión” y “Evaluación del Fondo Multilateral partiendo de las observaciones preliminares de los organismos, los datos del Artículo 7 e información procedente de la Secretaría del Ozono”.

**PARTE III: DATOS SOBRE LA EJECUCIÓN DE LOS PROGRAMAS DE PAÍS**

53. La parte III contiene datos sobre la ejecución de los programas de país, que se presentan a la Secretaría del Fondo, a más tardar, el 1 de mayo de cada año e incluyen datos de consumo de SAO por sector. Esta sección también presenta información adicional sobre las características de los programas de eliminación de SAO de los países. El formato de notificación de los datos de los programas de país se aprobó en la 35ª reunión del Comité Ejecutivo, en la decisión 35/58 e), la cual se modificó en cumplimiento de las decisiones 46/39 y 60/4 b) iv).

**DATOS DE CONSUMO DE SAO POR SECTOR, EXCEPTO LOS HCFC**

54. Al 1 de marzo 2013, se requerían informes sobre la ejecución de los programas de país de 1434 países que operan al amparo del Artículo 5. La Secretaría del Fondo recibió los informes más recientes para 2 países para 2012, para 136 países para 2011, para 2 países para 2010 y para 3 países para 2009. Cabe señalar que la renovación de los proyectos de fortalecimiento institucional está sujeta a la recepción de los datos del programa de país. Además, los datos relativos a la ejecución de los programas de país deben presentarse antes de la última reunión del año y las reuniones posteriores como condición previa a la aprobación y liberación de fondos para los proyectos. Todos los países que presentaron solicitudes de financiación a la 69ª reunión presentaron también los datos de su programa de país para 2011.

55. Si bien los niveles de consumo registrados son de años diferentes y pueden no necesariamente corresponderse con los datos notificados con arreglo al Artículo 7, los datos del programa de país presentan la evaluación sectorial más reciente por país y a nivel mundial. Estos datos deberían servir de ayuda a los países que operan al amparo del Artículo 5 interesados y al Comité Ejecutivo para determinar el consumo que resta eliminar en cada sector.

<sup>4</sup> No se incluye a Sudáfrica, pero dicho país comenzará a proporcionar datos sobre los HCFC a partir del año próximo, conforme a la decisión 67/5 d) ii).

56. En el cuadro 12 se presenta el consumo total de SAO (excluidos los HCFC) que resta eliminar en cada sector, después de tener en cuenta los proyectos aprobados pero que aún no se han ejecutado. También incluye la eliminación total del consumo correspondiente a proyectos aprobados que no han sido completados.

Cuadro 12

**CONSUMO TOTAL REMANENTE DE SAO (EXCLUIDOS LOS HCFC) POR SECTOR**

Sector	Consumo total más reciente	Porcentaje del consumo total más reciente	Eliminación total aprobada aún pendiente	Saldo por eliminar
Aerosoles	0,0	0,0%	240,4	*
Espumas	0,0	0,0%	20,0	*
Fumigantes	1 874,3	59,7%	1 769,4	104,9
Halones	0,1	0,0%	0,0	0,1
Uso en lab.	259,6	8,3%	0,0	259,6
Inhaladores de dosis medidas	661,4	21,1%	546,0	115,4
Agentes de proceso	199,4	6,4%	0,0	199,4
Refrigeración	141,1	4,5%	1 364,7	*
Solventes	3,7	0,1%	0,0	3,7
Esterilizantes	0,0	0,0%	0,0	0,0
Tabaco	0,0	0,0%	0,0	0,0
<b>Total</b>	<b>3 139,6</b>	<b>100,0%</b>	<b>3 940,5</b>	<b>683,0</b>

\* Se aprobó más eliminación que el consumo más reciente.

57. Las reducciones total de SAO (excluidos los HCFC) aprobadas, pero no ejecutadas (Cuadro 12), no incluyen aquellas aprobadas en principio para acuerdos plurianuales, ni el nivel de eliminación que se espera alcanzar como resultado de las actividades relacionadas con los bancos de halones. Además de las reducciones ya financiadas, el Comité Ejecutivo ha aprobado en principio proyectos sectoriales y nacionales de eliminación para los que se liberan tramos anuales de financiación a condición de que se hayan logrado las reducciones previstas.

58. Las reducciones resultantes de los tramos anuales futuros abordarán gran parte del consumo remanente identificado en el cuadro 12. Asimismo, los planes de gestión de la eliminación definitiva cubren todos los requisitos de nivel básico remanentes para los países de bajo volumen de consumo en relación con el CFC, los halones y el CTC. No obstante, los datos incluidos en los proyectos que se han aprobado, pero que aún no se ejecutaron, no cubren todo este tonelaje. Además, las reducciones de SAO aprobadas pero no ejecutadas indicadas en el cuadro 12 no incluyen una parte del consumo de halones en los países que ya han recibido un proyecto de banco de halones.

59. El volumen total de SAO remanente (excluidos los HCFC) que aún debe ser abordado (tomando en consideración la eliminación que representan los planes de gestión de la eliminación definitiva para los países de bajo volumen de consumo, los bancos de halones, los proyectos de eliminación definitiva y los acuerdos plurianuales aprobados en principio), asciende a 830,3 toneladas PAO (Cuadro 13). Esta es la misma cifra de 830,3 toneladas PAO que se había notificado a la 66ª reunión.



Cuadro 13

**CONSUMO TOTAL REMANENTE DE SAO (EXCLUIDOS LOS HCFC) POR SUSTANCIA,  
SEGÚN LOS DATOS DE LOS PROGRAMAS DE PAÍS Y DEL ARTÍCULO 7  
(TRAS TENER EN CUENTA LA ELIMINACIÓN QUE REPRESENTAN LOS PLANES DE  
GESTIÓN DE LA ELIMINACIÓN DEFINITIVA Y LOS PLANES DE GESTIÓN DE  
REFRIGERANTES PARA PAÍSES DE BAJO VOLUMEN DE CONSUMO, LOS BANCOS DE  
HALONES, LOS PROYECTOS DE ELIMINACIÓN DEFINITIVA Y LOS ACUERDOS  
PLURIANUALES APROBADOS EN PRINCIPIO)**

Sustancia química	Consumo de SAO remanente (toneladas PAO)
CFC	0,0*
CTC	0,0
Halones	0,0
MB	830,3
TCA	0,0
<b>Total</b>	<b>830,3</b>

\* Conforme a la decisión 60/5 d).

#### DATOS DE CONSUMO DE HCFC

60. En el cuadro 14 se presentan los niveles de consumo de HCFC según los datos más recientes disponibles. Estos indican que el consumo de HCFC asciende a 530 062 tm (35 502 toneladas PAO), principalmente de HCFC-22 (59,3% del total) y HCFC-141b (33,8% del total). Las 530 062 tm de HCFC representan un incremento de 23 452 tm respecto de la cantidad notificada a la 66ª reunión (506 610 tm). El nivel indicado en este informe se basa en datos de 2012 para 2 países, de 2011 para 136 países, de 2010 para 2 países y de 2009 para 3 países. Para aquellos países que notificaron datos tanto de 2010 como de 2011, el consumo de HCFC aumentó un 0,05%.

Cuadro 14

#### NIVELES DE DATOS DE CONSUMO MÁS RECIENTE DE HCFC POR SUSTANCIA

Sustancia química	Toneladas métricas	Toneladas PAO	Porcentaje del total
HCFC-123	3 012,3	60,2	0,2%
HCFC-124	2 161,3	47,5	0,1%
HCFC-141b	109 132,4	12 004,6	33,8%
HCFC-141b en polioles premezclados importados	4 647,9	511,3	1,4%
HCFC-142b	28 149,0	1 829,7	5,2%
HCFC-21	3,1	0,1	0,0%
HCFC-22	382 544,4	21 039,9	59,3%
HCFC-225	53,5	3,7	0,0%
HCFC-225ca	73,3	1,8	0,0%
HCFC-225cb	16,7	0,6	0,0%
HCFC-415b	268,0	2,7	0,0%
<b>Total</b>	<b>530 062,0</b>	<b>35 502,2</b>	<b>100,0%</b>

61. En comparación, el Fondo ha eliminado 239 282 tm (255 642 toneladas PAO) de consumo de SAO al 31 de diciembre de 2011.

62. La cantidad de consumo remanente de HCFC que se debe abordar depende del nivel básico del plan de gestión de la eliminación de los HCFC y de la cantidad de polioles premezclados abordados en el plan de gestión de la eliminación de los HCFC. La información sobre la cantidad de polioles premezclados solamente está disponible para los planes de gestión de la eliminación de los HCFC aprobados, dado que los datos sobre los polioles no se incluyen en los datos de programa de país o en los datos notificados con arreglo al Artículo 7. El Cuadro 15 muestra la cantidad de HCFC que se debe abordar para aquellos países que tienen planes de gestión de la eliminación de los HCFC aprobados.

Cuadro 15

**CONSUMO TOTAL REMANENTE DE HCFC POR SUSTANCIA (toneladas PAO)**

HCFC	Nivel básico de referencia	Punto de partida	Aprobado	Cantidad restante	% aprobado
HCFC-123	33,1	30,3	0,4	29,9	1,45%
HCFC-124	26,6	26,1	1,0	25,1	3,75%
HCFC-141	1,9	0,9	0,0	0,9	0,00%
HCFC-141b	10 705,5	10 761,5	4 289,0	6 472,5	39,86%
HCFC-142b	1 997,3	2 001,2	606,1	1 395,1	30,29%
HCFC-21	1,5	0,7	0,0	0,7	0,00%
HCFC-22	20 358,1	19 968,5	2 941,1	17 027,4	14,73%
HCFC-225	3,1	1,6	0,0	1,6	0,00%
HCFC-225ca	1,8	1,6	0,0	1,6	0,00%
HCFC-225cb	0,7	0,7	0,0	0,7	0,00%
HCFC-141b en polioles premezclados importados	-	562,0	289,7	272,3	51,55%
<b>Total</b>	<b>33 129,5</b>	<b>33 355,2</b>	<b>8 127,3</b>	<b>25 227,9</b>	<b>24,37%</b>

**CARACTERÍSTICAS DE LOS PROGRAMAS DE PAÍS**

63. El formato para la notificación de datos de programas de país aprobado en la decisión 46/39 y revisado en la 60ª reunión (decisión 60/4 b) iv)) permite a las dependencias nacionales del ozono determinar las perspectivas de cumplimiento desde una perspectiva tanto cuantitativa como cualitativa.

**Notificación de datos**

64. La Secretaría ha publicado el formato de informe de programa de país recientemente revisado (versión de Excel) en Internet y ha actualizado el portal de web de programas de país conforme a la decisión 63/4 b) ii), que requería que se retirasen el CFC, el CTC y los halones del formato de informe de los programas de país a partir del informe de los datos de 2012 que debía presentarse el 1 de mayo de 2013. En consecuencia, los CFC, el CTC y los halones ya no formarán parte del informe de situación y cumplimiento a partir de la 70ª reunión.

**Integridad de los datos**

65. Este es el sexto año que se usa el nuevo formato para notificar los datos de país. Diez países proporcionaron los datos para 2011 utilizando el formato que se aprobó en la 46ª reunión, siendo 128 los países que utilizaron el formato revisado que se aprobó en la 60ª reunión. Sin embargo, la mayor parte de los datos suministrados en el nuevo formato estaban incompletos en las tres secciones principales sobre aspectos cualitativos, cuantitativos y normativos. Solamente 16 países, las Bahamas, Belice, Bolivia (Estado Plurinacional de), Botswana, Cote d'Ivoire, El Salvador, Lesotho, Malasia, el Níger, Paraguay, la

República Centroafricana, Serbia, Togo, Venezuela (República Bolivariana de), Zambia y Zimbabwe, proporcionaron toda la información para las tres secciones (sin datos en blanco).

66. De conformidad con la decisión 59/4 b) iv), la Secretaría examinó los datos de ejecución de programas de país presentados por la Web. La Secretaría observó que 81 países (de los 138 que presentaron datos) presentaron datos de 2011 usando el sistema basado en la Web que se había iniciado el 25 de abril de 2007. Solo 2 de los 143 países que debían presentar datos proporcionaron datos de programa de país para 2012, mientras que 136 países presentaron datos para 2011, 2 países para 2010 y 3 países para 2009, a tiempo para poder realizar el análisis en el presente documento.

## **Resumen de datos**

### Todas las SAO excepto los HCFC

67. Ciento veinte de los 138 países que presentaron informes y que tienen planes de gestión de refrigerantes/planes nacionales de eliminación/planes de gestión de la eliminación definitiva indicaron progresos o que habían completado la ejecución de sus planes de gestión de refrigerantes/planes nacionales de eliminación/planes de gestión de la eliminación definitiva. Con inclusión de los países que notificaron datos anteriores a 2011, 124 de 143 países mostraron progresos en la ejecución de sus planes de gestión de refrigerantes/planes nacionales de eliminación/planes de gestión de la eliminación definitiva o bien la completaron.

68. Incluidos aquellos países que notificaron datos anteriores a 2011, se encuentran en funcionamiento 13 550 máquinas de recuperación y 4 984 máquinas de reciclaje en total. Entre los países que emplean máquinas de recuperación y reciclaje, el 74% informó de que las máquinas funcionaban “satisfactoriamente” o “muy bien”. Se han recuperado en total 227,9 toneladas PAO de CFC-11, de las que se han reutilizado 153,2 toneladas PAO, y se han recuperado en total 18 097,4 toneladas PAO de CFC-12, de las cuales se han reutilizado 1 991,8 toneladas PAO. No se recopilaron datos para las restantes SAO. Los datos más recientes notificados para 2006-2011, considerados junto con los datos de los informes de años anteriores, indican que se ha impartido capacitación a 63 410 técnicos de servicio y mantenimiento de equipos de refrigeración, se han extendido certificados a 55 235 técnicos y se ha impartido capacitación en servicio y mantenimiento de equipos de refrigeración a 1 965 instructores de técnicos.

69. Ciento ocho de los 143 países que notificaron datos (incluidos datos de informes de años anteriores) indicaron que tienen vigentes sistemas de cuotas. Además, 124 países notificaron que requerían el registro de los importadores. Se ha informado de que se ha impartido capacitación a un total de 15 092 oficiales de aduanas. No resulta claro si se trata de datos anuales o acumulativos.

70. Ciento treinta y cinco de los 144 países sujetos a requisitos de presentación de informes han notificado que tienen en vigor un sistema de concesión de licencias (130 de los 138 países que notificaron datos de 2011 disponían de sistemas de concesión de licencias en vigor; 5 indicaron que sus sistemas de concesión de licencias “no funcionaban muy bien”; a saber, Afganistán, Benin, Botswana, las Islas Cook, Haití y Micronesia (Estados Federados de)). En la 68ª reunión, la Secretaría pidió a los países en cuestión que explicasen por qué sus sistemas de concesión de licencias no funcionaban bien. Conforme a la información recibida por la Secretaría, los motivos para indicar que sus sistemas de concesión de licencias “no funcionaban muy bien” incluyeron: la necesidad de contar con legislación adicional (Afganistán, las Islas Cook y Haití), el hecho de que todavía se estaba divulgando la información sobre el sistema de concesión de licencias (Benin), o que el gabinete aún no había aprobado los reglamentos sobre SAO (Botswana) y la necesidad de que el sistema fuera aprobado por el gobierno (Micronesia (Estados Federados de)). La información sobre la situación de los sistemas de concesión de licencias en 2012 se presentará el 1 de mayo de 2013.

71. Seis de estos 138 países (Guinea-Bissau, Kenya, Mozambique, Panamá, Papua Nueva Guinea y Timor-Leste) no proporcionaron información acerca de si su sistema de concesión de licencias funcionaba “satisfactoriamente”, “muy bien” o “no muy bien”. El Comité Ejecutivo pudiera pedir a los Gobiernos de Guinea-Bissau, Kenya, Mozambique, Panamá, Papua Nueva Guinea y Timor-Leste, por segunda reunión consecutiva excepto para Guinea-Bissau, que informen a la Secretaría, con carácter urgente, acerca de si sus sistemas de concesión de licencias funcionan “satisfactoriamente”, “muy bien” o “no muy bien”.

Datos de precios de los CFC y los HCFC y sus productos de alternativa

72. En el cuadro 16 se presenta un resumen de los costos de algunas SAO y los productos sustitutivos.

Cuadro 16

**PRECIO MEDIO DE LOS CFC Y HCFC Y SUS PRODUCTOS DE ALTERNATIVA**

SAO	Precio medio/kg (\$EUA/kg) (2005 según informe a la 50ª reunión)	Precio medio/kg (\$EUA/kg) (2006 según informe a la 54ª reunión)	Precio medio/kg (\$EUA/kg) (2007 según informe a la 57ª reunión)	Precio medio/kg (\$EUA/kg) (2008 según informe a la 60ª reunión)	Precio medio/kg (\$EUA/kg) (2009, informe a la 63ª reunión)	Precio medio/kg (\$EUA/kg) (2010, informe a la 66ª reunión)	Precio medio/kg (\$EUA/kg) (Informe de 2011)	Núm. de países con incremento de precios	Núm. de países con disminución de precios	Intervalo (\$EUA/kg) (Informe de 2011)	Núm. de países que notificaron datos diferentes de cero para 2011	Datos excluidos* al calcular el promedio (\$EUA/kg) (Informe de 2011)
CFC-11	\$7,09	\$9,67	\$10,65	\$11,42	\$12,30	\$13,55	\$10,80	4	1	\$4,36 (China) a \$25,00 (México)	9	\$40,40 (Brasil)
CFC-12	\$8,98	\$10,95	\$12,81	\$11,52	\$10,84	\$12,08	\$15,82	11	3	\$4,50 (Camboya) a \$46,70 (Brasil)	23	\$4,04 (Madagascar), \$165,00 (Timor-Leste)
CFC-113	\$9,02	\$19,41	\$19,00	\$16,52	\$9,91	\$5,94	\$8,26	n.c.	1	\$4,47 (China) a \$13,00 (Malasia)	4	\$347,80 (Bosnia y Herzegovina)
CFC-114	\$9,98	\$17,37	\$18,92	\$16,31	\$6,35	\$15,25	\$10,79	n.c.	1	\$8,57 (China) a \$13,00 (Malasia)	2	Ninguno
CFC-115	\$10,94	\$12,41	\$11,97	\$8,82	\$11,62	\$11,51	\$10,29	n.c.	1	\$7,58 (China) a \$13,00 (Malasia)	2	Ninguno
Ciclopentano	n.c.	n.c.	\$4,03	\$1,91	\$3,74	\$4,68	\$4,66	2	n.c.	\$2,14 (China) a \$7,50 (Camerún)	5	Ninguno
HCFC-123	n.c.	n.c.	n.c.	n.c.	\$9,09	\$15,23	\$11,13	5	1	\$5,71 (China) a \$20,24 (Paraguay)	13	\$1,50 Bolivia (Estado Plurinacional de), \$32,00 (Venezuela [República Bolivariana de])
HCFC-124	n.c.	n.c.	n.c.	n.c.	\$12,73	\$9,14	\$9,83	2	n.c.	\$7,65 (China) a \$12,85 (Indonesia)	3	Ninguno
HCFC-133	n.c.	n.c.	n.c.	n.c.	\$19,25	n.c.	\$4,85	n.c.	n.c.	\$4,85 (China)	1	Ninguno
HCFC-141b	n.c.	n.c.	\$3,87	\$6,66	\$5,00	\$6,02	\$6,73	16	8	\$2,40 (Irán [República Islámica del]) a \$19,00 (Venezuela [República Bolivariana de])	40	\$2,12 (China), \$25,00 (Zimbabue)
HCFC-141b en polioles premezclados importados	n.c.	n.c.	n.c.	n.c.	\$3,99	\$3,81	\$4,77	4	3	\$2,40 (Bosnia y Herzegovina) a \$16,67 (Gambia)	15	\$0,70 (Swazilandia), \$32,00 (Zimbabue)
HCFC-142b	n.c.	n.c.	\$5,46	\$6,59	\$7,75	\$7,09	\$6,00	1	n.c.	\$3,10 (Chile) a \$9,30 (Kirguistán)	8	\$30,00 (Georgia)
HCFC-22	\$5,41	\$6,52	\$7,21	\$7,75	\$7,35	\$8,61	\$9,28	55	32	\$2,40 (Arabia Saudita) a \$41,30 (Botswana)	121	\$69,00 (Jamaica), \$85,00 (Timor-Leste), \$130,45 (Islas Marshall),

SAO	Precio medio/kg (\$EUA/kg) (2005 según informe a la 50ª reunión)	Precio medio/kg (\$EUA/kg) (2006 según informe a la 54ª reunión)	Precio medio/kg (\$EUA/kg) (2007 según informe a la 57ª reunión)	Precio medio/kg (\$EUA/kg) (2008 según informe a la 60ª reunión)	Precio medio/kg (\$EUA/kg) (2009, informe a la 63ª reunión)	Precio medio/kg (\$EUA/kg) (2010, informe a la 66ª reunión)	Precio medio/kg (\$EUA/kg) (Informe de 2011)	Núm. de países con incremento de precios	Núm. de países con disminución de precios	Intervalo (\$EUA/kg) (Informe de 2011)	Núm. de países que notificaron datos diferentes de cero para 2011	Datos excluidos* al calcular el promedio (\$EUA/kg) (Informe de 2011)
												\$146,29 (San Vicente y las Granadinas), \$160,92 (Nauru), \$180,00 (Turkmenistán), \$215,00 (Angola)
HCFC-225	n.c.	n.c.	n.c.	n.c.	\$9,00	\$10,00	\$10,00	n.c.	n.c.	\$10,00 (Malasia)	1	Ninguno
HCFC-225ca	n.c.	n.c.	n.c.	n.c.	\$32,22	\$37,10	\$42,86	1	n.c.	\$42,86 (Filipinas)	1	Ninguno
HCFC-225cb	n.c.	n.c.	n.c.	n.c.	\$19,11	\$37,10	\$42,86	1	n.c.	\$42,86 (Filipinas)	1	Ninguno
HFC-134a	\$12,21	\$13,16	\$12,44	\$11,37	\$12,52	\$15,14	\$16,64	49	29	\$0,93 (Zambia) a \$48,00 (República Centroafricana)	116	\$110,00 (Angola), \$135,00 (Timor-Leste), \$208,90 (Nauru), \$245,00 (Turkmenistán), \$355,55 (San Vicente y las Granadinas)
HCFC-227ea	n.c.	n.c.	\$9,32	\$12,97	\$18,03	\$28,30	\$16,40	1	3	\$2,20 (Seychelles) a \$35,00 (Indonesia)	7	\$95,24 (Filipinas)
HCFC-245fa	n.c.	n.c.	\$7,44	\$10,38	\$10,11	\$12,26	\$10,83	n.c.	2	\$7,82 (China) a \$14,67 (Indonesia)	3	Ninguno
HFC-356mfc	n.c.	n.c.	\$15,52	\$10,38	\$9,63	\$11,00	\$14,00	n.c.	n.c.	\$10,00 (Malasia) a \$18,00 (Indonesia)	2	Ninguno
Isobutano (HC-600a)	n.c.	n.c.	\$14,24	\$22,53	\$24,36	\$21,08	\$20,97	11	10	\$2,45 (China) a \$66,66 (Filipinas)	38	\$0,30 (Chile), \$85,00 (Turkmenistán), \$105,00 (Angola), \$120,21 (Lesotho)
Inhaladores de dosis medidas (producción de espumas)	n.c.	n.c.	\$3,83	\$3,34	\$2,91	\$3,15	\$3,09	2	1	\$2,54 (China) a \$4,00 (Camerún)	6	Ninguno
Formiato de metilo	n.c.	n.c.	n.c.	n.c.	\$5,02	\$3,62	n.c.	n.c.	n.c.	Ninguno	0	Ninguno
Pentano	n.c.	n.c.	\$1,40	\$6,00	\$2,20	\$3,30	\$4,00	n.c.	n.c.	\$4,00 (Armenia)	1	Ninguno
Propano (HC-290)	n.c.	n.c.	\$6,49	\$7,88	\$20,53	\$21,79	\$22,23	7	2	\$6,50 (Indonesia) a \$52,38 (Filipinas)	13	\$3,00 (Argentina) \$175,00 (Senegal)
R-404A	n.c.	n.c.	\$12,44	\$16,46	\$16,13	\$18,67	\$20,68	34	32	\$1,42 (Zambia) a \$90,00 (Turkmenistán)	104	\$0,02 (Dominica), \$140,00 (Angola), \$175,00 (Timor-Leste), \$250,00 (Haití), \$259,89 (Nauru) \$370,37 (San Vicente y las Granadinas)
R-407C	n.c.	n.c.	\$14,21	\$17,42	\$16,95	\$20,80	\$21,36	27	22	\$2,50 (Irán [República Islámica del]) a \$86,05 (Islas Salomón)	80	\$1,42 (Zambia), \$140,00 (Angola), \$300,00 (Turkmenistán)

SAO	Precio medio/kg (\$EUA/kg) (2005 según informe a la 50ª reunión)	Precio medio/kg (\$EUA/kg) (2006 según informe a la 54ª reunión)	Precio medio/kg (\$EUA/kg) (2007 según informe a la 57ª reunión)	Precio medio/kg (\$EUA/kg) (2008 según informe a la 60ª reunión)	Precio medio/kg (\$EUA/kg) (2009, informe a la 63ª reunión)	Precio medio/kg (\$EUA/kg) (2010, informe a la 66ª reunión)	Precio medio/kg (\$EUA/kg) (Informe de 2011)	Núm. de países con incremento de precios	Núm. de países con disminución de precios	Intervalo (\$EUA/kg) (Informe de 2011)	Núm. de países que notificaron datos diferentes de cero para 2011	Datos excluidos* al calcular el promedio (\$EUA/kg) (Informe de 2011)
R-410A	n.c.	n.c.	\$14,21	\$15,43	\$16,44	\$20,26	\$21,70	29	28	\$2,50 (Irán [República Islámica del]) a \$95,00 (Turkmenistán)	91	\$140,00 (Angola), \$213,99 (Nauru), \$250,00 (Haití), \$300,00 (Timor-Leste), \$399,00 (Antigua y Barbuda), \$442,59 (San Vicente y las Granadinas)
R-502	\$14,20	\$16,74	\$21,44	\$16,97	\$16,20	\$13,50	\$18,15	10	1	\$6,00 (Irán [República Islámica del]) a \$30,10 (Croacia)	19	\$105,00 (Turkmenistán), \$250,00 (Haití)
R-507A	n.c.	n.c.	\$12,47	\$17,69	\$17,48	\$17,55	\$20,78	17	6	\$7,54 (Indonesia) a \$72,95 (Islas Salomón)	46	\$130,00 (Angola), \$227,50 (Turkmenistán), \$250,67 (Nauru)

\* Se excluyeron todas las entradas con cero \$EUA.

73. No se han proporcionado dichos datos para los halones, el metilbromuro o el CTC.

74. Solo 9 países suministraron los datos del precio de CFC-11 y 23 países proporcionaron datos de precios del CFC-12, no quedando claro si en la mayoría de los países hay algún CFC a la venta dado que estos procederían de existencias. Los precios del HCFC-22 y el HCFC-142b son más bajos que los precios de los productos de alternativa incluidos en los datos de programa de país. Los precios del HCFC-141b son más bajos que los productos de alternativa HCFC-245fa y HFC-356mfc, pero son más altos que los precios del ciclopentano y el pentano en relación con los precios de 2011.

### HCFC

75. Este es el cuarto año que se utiliza el formato revisado para incluir información pertinente sobre la eliminación de los HCFC aprobado en la 60ª reunión (decisión 60/4 b iv)). Ciento veintiocho de los 138 países proporcionaron datos de 2011 usando el nuevo formato con información sobre los HCFC.

76. Sesenta y uno de los 143 países que notificaron datos informaron de que tenían sistemas de cuotas vigentes y 108 países notificaron que se requería el registro de los importadores. Se han recuperado 395,3 toneladas PAO de HCFC-22 en total, de las cuales se reutilizaron 249,3 toneladas PAO. Se ha informado que se ha impartido capacitación a un total de 5 507 oficiales de aduanas. Hay en funcionamiento un total de 1 451 máquinas de recuperación y 508 máquinas de reciclaje, se han expedido certificados a 11 343 técnicos y se ha capacitado a 14 252 técnicos, habiéndose capacitado también a 1,640 instructores de técnicos para la recuperación y reciclaje de HCFC.

### PARTE IV: PROYECTOS CON DEMORAS EN LA EJECUCIÓN Y PARA LOS QUE SE HAN SOLICITADO INFORMES SITUACIÓN ESPECIALES

77. Hay 25 proyectos en curso que se han clasificado como proyectos con demoras en la ejecución y están sujetos a los procedimientos del Comité para la cancelación de proyectos. Los proyectos con demoras en la ejecución son aquellos: i) que se prevé completar con una demora de más de 12 meses, y/o ii) en los que no se ha efectuado ningún desembolso en un plazo de 18 meses después de la aprobación

del proyecto. El desglose de los proyectos con demoras en la ejecución por organismo de ejecución y bilateral se presenta en el cuadro 17, como sigue: ONUDI (ocho), PNUD (cinco), PNUMA (cuatro), Banco Mundial (dos), la República Checa (dos), Italia (uno), Japón (uno) y España (uno). No se han recibido informes de Francia (uno) e Israel (uno). Las demoras fueron causadas más comúnmente por factores externos, seguidos por motivos técnicos y relacionados con las empresas.

Cuadro 17

**RESUMEN DEL PROGRESO DE LOS PROYECTOS CON DEMORAS EN LA EJECUCIÓN**

	República Checa (la)	BIRF	Italia	Japón	España	PNUD	PNUMA	ONUDI	Total
Número de proyectos notificados	2	1	1	1	1	5	4	8	23
Número de proyectos completados	2		1	1		3	3	1	11
Número de proyectos con progresos							1		1
Número de proyectos con algún progreso		1			1	2		7	11

*Progreso en la solución de las causas de las demoras*

78. En sus informes, los organismos de ejecución y bilaterales informaron de que el progreso en la superación de las demoras había sido variable. Once de los proyectos de la lista con demoras en la 68ª reunión ya se han terminado (Anexo III). Un proyecto, para el que ha habido progresos de un hito a otro o una resolución de la demora en la ejecución, puede ser retirado de los futuros informes sobre proyectos con demoras en la ejecución (Anexo IV).

*Proyectos con algún progreso*

79. Once proyectos han sido clasificados en la categoría “con algún progreso”, y los organismos de ejecución y bilaterales indicaron que se seguirían supervisando dichos proyectos (Anexo V). Pese al progreso observado, cabe señalar que los proyectos ya aprobados por más de tres años deben continuar siendo supervisados en virtud de la decisión 32/4. Por consiguiente, estos proyectos no pueden ser retirados de la lista correspondiente a la supervisión antes de su terminación definitiva, independientemente de los progresos que puedan haberse logrado. Por lo tanto, se recomienda continuar con la supervisión de estos.

*Proyectos para los que se pidieron informes de situación adicionales*

80. Los proyectos de fortalecimiento institucional, bancos de halones, capacitación aduanera, recuperación y reciclaje y de demostración no están sujetos a los procedimientos de la cancelación de proyectos. Sin embargo, el Comité Ejecutivo ha decidido continuar supervisándolos según corresponda (decisión 36/14 b)). En su 68ª reunión, el Comité Ejecutivo pidió 70 informes de situación adicionales. Dichos informes son necesarios cuando se carece de indicación alguna acerca de los progresos logrados desde el último informe y/o cuando se ha informado acerca de la existencia de impedimentos adicionales a la ejecución. Ha habido progresos en 23 proyectos. Se solicitan informes de situación adicionales respecto de 47 proyectos, que deberán presentarse a la 70ª reunión (Anexo VI), indicándose las razones específicas por las que se piden tales informes.

*Firma de documento para proyecto/desarrollo de plan de gestión de la eliminación de los HCFC*

81. Hasta la fecha, el Comité Ejecutivo ha aprobado 295 planes de gestión de la eliminación de los HCFC y actividades de preparación de proyecto en 144 países, que dan origen a actividades de plan de gestión de la eliminación de los HCFC en 137 países. Según el número de planes de gestión de la eliminación de los HCFC ya aprobados, siete planes de gestión de la eliminación de los HCFC se presentarán después de la 69ª reunión.

82. En su 68ª reunión, el Comité Ejecutivo pidió que se presentaran dos informes adicionales sobre la situación de los planes de gestión de la eliminación de los HCFC. Dichos informes son necesarios cuando se carece de indicación alguna acerca de los progresos logrados desde el último informe y/o cuando se ha informado de la existencia de impedimentos adicionales a la ejecución. Las actividades de preparación de plan de gestión de la eliminación de los HCFC respectivas se encuentran en diferentes etapas de ejecución; no han comenzado en un país (Mauritania) y se presentará el plan de gestión de la eliminación de los HCFC para un país (Barbados) a la 69ª reunión. Se solicita la presentación de un informe de situación adicional a la 70ª reunión para Mauritania (Anexo VII).

*Proyectos con requisitos específicos de presentación de informes*

83. Hay 41 proyectos/actividades para los que se debían presentar informes específicos a la 69ª reunión, entre los que se incluyen los siguientes informes específicos detallados sobre: un proyecto relacionado con el CO<sub>2</sub> supercrítico en espumas pulverizadas en Colombia (COL/FOA/60/DEM/75) ejecutado por el Japón; cuatro proyectos relacionados con el plan nacional de eliminación de los CFC en el Brasil (BRA/PHA/50/INV/278 - BRA/PHA/53/INV/280 - BRA/PHA/56/INV/284 - BRA/PHA/59/INV/293), ejecutados por el PNUD; medidas tomadas por el PNUMA respecto de los proyectos en Haití, a fin de mejorar sus componentes de capacitación y la transferencia de fondos, y proporcionar asesoría técnica suficiente para la toma de decisiones sobre tecnología; informe de la ONUDI sobre la República Popular Democrática de Corea en el que se demuestre que los equipos importados al país en el marco del plan de eliminación de CTC guardaban conformidad con todas las resoluciones del Consejo de Seguridad de las Naciones Unidas aprobadas a partir de 2006; informes sobre actividades de movilización de recursos. No se requieren informes adicionales para dos proyectos ejecutados por el PNUD, tres proyectos ejecutados por el PNUMA y cinco ejecutados por la ONUDI. Para un proyecto de CTC en la República Popular Democrática de Corea y una actividad de movilización de recursos, la necesidad de que se presenten informes específicos adicionales está sujeta a una decisión del Comité Ejecutivo al respecto en la 69ª reunión. Los motivos para solicitar estos informes se relacionan principalmente con las siguientes decisiones:

- La decisión 55/43 b), que requiere que se informe sobre los proyectos individuales de demostración para HCFC, y la cláusula de aprobación de los proyectos de inversión, por la que se debe informar sobre el costo adicional de capital, el costo adicional de explotación y la aplicación de tecnología;
- Las decisiones de la 67ª reunión respecto a los informes sobre la marcha de las actividades para los planes de gestión de la eliminación definitiva/planes nacionales de eliminación si no se presentan informes de terminación de proyecto;

84. El Comité Ejecutivo pudiera pedir que se presenten informes específicos adicionales a la 70ª reunión sobre los 29 proyectos con cuestiones pendientes que se enumeran en el Anexo VIII.

85. En el caso específico del plan de gestión de la eliminación definitiva para Zambia, el PNUMA, en su calidad de organismo de ejecución principal, ha presentado a la 69ª reunión del Comité Ejecutivo el informe de verificación del consumo para los años 2007 a 2009. El plan de gestión de la eliminación definitiva había sido aprobado en la 53ª reunión, con el PNUMA como organismo principal y el PNUD como organismo cooperante. Cuando se aprobó el segundo tramo en la 57ª reunión, el Comité Ejecutivo



también aprobó financiación adicional por valor de 20 000 \$EUA más gastos de apoyo de organismo para que se verificase que el consumo de Zambia cumplía los límites de consumo especificados en el acuerdo del plan de gestión de la eliminación definitiva. El informe de verificación original se presentó originalmente a la 68ª reunión, luego se retiró y posteriormente se volvió a presentar a la 69ª reunión. Las observaciones siguientes se refieren a una revisión de la ponencia presentada a la 69ª reunión.

86. El acuerdo del plan de gestión de la eliminación definitiva especificaba un consumo máximo de 4,11 toneladas PAO para los años 2007 a 2009. El Gobierno de Zambia notificó, con arreglo al Artículo 7, un consumo de 4,1 toneladas PAO en 2007, 2,0 toneladas PAO en 2008 y cero toneladas PAO en 2009 y posteriormente. En el informe de verificación se estableció que dicha cifra guardaba conformidad con la información de aduanas, de la oficina de estadísticas central y de la dependencia nacional del ozono. No obstante, los datos proporcionados por los importadores como parte del informe notifican un consumo más elevado que aquel notificado para 2008 y 2009, si bien dentro de los límites del consumo máximo permitido conforme al acuerdo del plan de gestión de la eliminación definitiva. Al respecto, en el informe de verificación revisado se informó de que las cifras obtenidas de los importadores reflejan sus ventas, para las que algunos usaron CFC de reservas importados en años anteriores.

87. La Secretaría se comunicó con el PNUMA, que a su vez aclaró varios puntos con los verificadores. Las aclaraciones proporcionadas no respondieron por completo todas las cuestiones planteadas por la Secretaría respecto de la coherencia entre el consumo real y los datos presentados con arreglo al Artículo 7. Sin embargo, las conclusiones resultan suficientes para demostrar con claridad que el consumo real en los años 2007 a 2009 se mantuvo por debajo de los límites de consumo establecidos en el acuerdo y, por lo tanto, cumplía la condición estipulada en el acuerdo.

88. El Comité Ejecutivo pudiera tomar nota del informe de verificación del consumo de 2007 a 2009 del plan de gestión de la eliminación definitiva de Zambia, que demuestra que el consumo se mantuvo por debajo del consumo máximo permitido especificado para 2007 a 2009, conforme a lo aprobado en el acuerdo del plan de gestión de la eliminación definitiva.

**Medidas adoptadas respecto de los proyectos en Haití, a fin de mejorar sus componentes de capacitación y la transferencia de fondos, y proporcionar asesoría técnica suficiente para la toma de decisiones sobre tecnología (decisión 68/3 b) i))**

89. La ejecución de los proyectos en Haití (es decir, el proyecto de fortalecimiento institucional, el plan de gestión de refrigerantes y el plan de gestión de la eliminación definitiva) enfrentó dificultades debido a la inestabilidad política, cambios frecuentes en el Gobierno de Haití y desastres naturales. Conforme a la decisión 68/3 b) i), el PNUMA ha presentado a la 69ª reunión un informe sobre las medidas tomadas respecto de los proyectos en Haití a fin de mejorar sus componentes de capacitación y la transferencia de fondos y proporcionar asesoría técnica suficiente para la toma de decisiones sobre tecnología.

90. Con respecto a las medidas tomadas por el PNUMA para facilitar la transferencia de fondos, el organismo informó de que se habían realizado tres visitas en misión a Haití, entre agosto de 2011 y octubre de 2012, para reunirse con autoridades de alto nivel, incluido el nuevo Ministro de Medio Ambiente, y para proporcionar información actualizada a los nuevos oficiales nacionales del ozono designados. El PNUMA notificó a los oficiales haitianos que el acuerdo para ejecutar el proyecto de fortalecimiento institucional había caducado. En consecuencia, se debería firmar un nuevo acuerdo una vez que se recibiese el informe financiero y de actividades para el acuerdo vencido, a fin de que el país pudiese acceder al saldo de fondos. Dado que el informe financiero y de actividades no se había recibido al 21 de febrero de 2013, el Director Regional del PNUMA enviará una nota oficial al nuevo Ministro de Medio Ambiente designado sobre esta cuestión.

91. El PNUMA informó de que técnicos haitianos participaron en el taller para técnicos de aire acondicionado y refrigeración de la región del Caribe, y de que otros técnicos asistieron a un taller de capacitación en Cuba sobre alternativas a largo plazo para el aire acondicionado y la refrigeración. El PNUMA también informó de que se impartirá capacitación sobre tecnologías de alternativa, pero reconoció que vincularse con otras escuelas técnicas fuera de Puerto Príncipe, que se podrían utilizar para capacitar formalmente a otros técnicos en refrigeración, y cooperar con estas, resultaba un verdadero desafío. El PNUMA explicó que, a fin de hacer avanzar los componentes de capacitación, se había mantenido la relación ya establecida con la Mission des Nations Unies pour la stabilisation en Haiti (MINUSTAH) dado que continuaban los esfuerzos de rehabilitación para responder a las necesidades del país y a los requisitos del Protocolo de Montreal. Se prevé que los oficiales del ozono, a través del plan de gestión de la eliminación de los HCFC, continuarán trabajando con la MINUSTAH para asegurar que sus técnicos reciban la capacitación necesaria para apoyar la eliminación de los HCFC.

92. Entre las medidas adoptadas por el PNUMA para proporcionar asesoría técnica suficiente para la toma de decisiones sobre tecnología se incluyeron el intercambio de información sobre medios de los mecanismos especiales para tal fin, fuentes de documentación y experiencias durante las reuniones de redes regionales, orientación directa a los oficiales del ozono por medio de debates durante las visitas, etc. Además, la relación establecida con la asociación de refrigeración también resultó útil para brindar orientación a los técnicos acerca de las tecnologías disponibles y señalar aquellas que son más beneficiosas para la protección de la capa de ozono, el clima y la energía.

93. Lamentablemente, ninguno de los esfuerzos previstos para permitir una integración más rápida de los nuevos oficiales del ozono ha surtido efecto debido a la frecuente rotación de oficiales del gobierno sin un procedimiento adecuado para transferir información de antecedentes a los nuevos oficiales. Sin embargo, el proceso de preparación del plan de gestión de la eliminación de los HCFC en sí mismo se utilizó para mantener un debate a nivel nacional sobre tecnologías de alternativa y concienciación para conducir la asistencia internacional que se recibía. El principal mensaje que se transmitió fue evitar la instalación de tecnología obsoleta en equipos de refrigeración y aire acondicionado y promover los equipos que usan la energía eficientemente como una combinación de costo y beneficios conveniente tanto para el desarrollo del país como para el cumplimiento del Protocolo de Montreal.

94. El Comité Ejecutivo pudiera considerar:

- a) Tomar nota con aprecio del informe del PNUMA sobre las medidas tomadas respecto de los proyectos en Haití a fin de mejorar sus componentes de capacitación y la transferencia de fondos y proporcionar asesoría técnica suficiente para la toma de decisiones sobre tecnología; y
- b) Pedir al PNUMA que proporcione una actualización sobre la producción y la presentación del informe financiero y de actividades y sobre la firma del nuevo acuerdo de fortalecimiento institucional para Haití que permitirá liberar el saldo de fondos.

**Brasil: plan nacional de eliminación de CFC (informe de auditoría independiente de 2011/2012 e informe sobre la marcha de las actividades de 2012) (PNUD)**

95. En nombre del Gobierno del Brasil, el PNUD, en calidad de organismo de ejecución designado, ha presentado a la 69ª reunión del Comité Ejecutivo un informe de verificación del consumo para los años 2011 y 2012 y un informe sobre la ejecución del plan nacional de eliminación de los CFC. El plan nacional de eliminación de los CFC para el Brasil fue aprobado por el Comité Ejecutivo en su 37ª reunión con miras a eliminar el consumo de CFC en el país antes del 31 de diciembre de 2009. Se han aprobado fondos por valor de 26,7 millones de \$EUA más gastos de apoyo de organismo en ocho tramos, habiéndose aprobado el último tramo en la 59ª reunión, en 2009.

96. El informe de verificación confirma los datos presentados por el Brasil con arreglo al Artículo 7 para 2011, que muestran un consumo de cero tonelada PAO. Para 2012, el informe de verificación confirma el cumplimiento del Protocolo de Montreal, dado que se pudo verificar un consumo de cero tonelada PAO. Aún no se han presentado a la Secretaría del Ozono los datos con arreglo al Artículo 7 para 2012; por lo tanto, la verificación no se pudo referir a dicho informe de datos.

97. El informe sobre la marcha de las actividades cubre las actividades ejecutadas conforme al plan aprobado en la 66ª reunión del Comité Ejecutivo, así como su estado de terminación, y aquellas actividades que aún deben ejecutarse para la terminación completa:

- a) Las actividades que se han completado desde la 66ª reunión son: la distribución de juegos de herramientas de recuperación y supervisión de actividades relacionadas en el nivel de los usuarios finales; la creación de centros de reciclaje y el suministro de juegos de prueba para laboratorio, así como la puesta en marcha relacionada, capacitación y preparación de guías; un proyecto de demostración en el sector de refrigeración comercial, con 18 conversiones de equipos de refrigeración comercial de usuarios finales, incluida la puesta en marcha y la documentación de ahorros de energía; y la publicación de normas técnicas para la reducción de las emisiones de los refrigerantes como paso final en la participación y las deliberaciones sobre propuestas de normas técnicas; y
- b) Actualmente hay otras actividades en curso, tales como: la recuperación y el reciclaje de enfriadores, habiéndose adquirido y entregado dos enfriadores que no utilizan CFC, cuya instalación se prevé para marzo del año en curso. Hasta mediados de 2013 se recopilará información de rendimiento de los enfriadores entregados en el marco de proyecto, con lo que se completará la actividad. Otra actividad es la introducción de un sistema de software para reducir el uso y el comercio ilícitos de SAO, especialmente CFC. El sistema, diseñado para supervisar las importaciones, las exportaciones, la recuperación, la regeneración y el reciclaje de SAO, ya ha sido programado; actualmente se está probando y optimizando la versión beta, y se espera que el sistema esté completamente en funcionamiento antes de junio de 2013. Finalmente, la Unidad de gestión de proyecto continúa proporcionando apoyo técnico y operacional a diferentes subproyectos, y completará las actividades restantes así como cerrará el proyecto.

98. El PNUD espera que todas las actividades se hayan concluido para mediados de 2013, y prevé que se presentará un informe de terminación de proyecto durante el segundo semestre de 2013. El saldo remanente a marzo de 2013 asciende a 400 000 \$EUA, de los cuales ya se han comprometido 390 000 \$EUA.

99. El Comité Ejecutivo pudiera considerar:

- a) Tomar nota del informe de verificación del consumo de 2011 y 2012 y del plan de ejecución anual de 2011 y 2012 del plan nacional de eliminación de CFC en el Brasil; y
- b) Pedir al PNUD:
  - i) Que complete las actividades restantes conforme a lo descrito en el informe sobre la ejecución del plan nacional de eliminación de CFC;
  - ii) Que, al completar el plan nacional de eliminación de CFC, presente, durante 2013, un informe de terminación de proyecto, con arreglo al formato señalado en la 65ª reunión y según lo propuesto por el PNUD; y

- iii) Que devuelva cualquier saldo restante al Fondo Multilateral tras completar las actividades restantes.

**Colombia: Proyecto de demostración para validar la utilización de CO<sub>2</sub> supercrítico en la fabricación de espumas rígidas de poliuretano pulverizadas**

*Antecedentes*

100. El Gobierno del Japón ha presentado a la 69ª reunión un informe provisional sobre el proyecto de demostración para validar el uso de CO<sub>2</sub> supercrítico en la fabricación de espumas rígidas de poliuretano pulverizadas. En la 60ª reunión, el Comité Ejecutivo aprobó el proyecto en forma excepcional y en la inteligencia de que el proyecto sería el último y único proyecto de validación en lo que concierne a la tecnología de CO<sub>2</sub> para la fabricación de espumas rígidas de poliuretano pulverizadas.

101. Los equipos de inyección de espumas modificados para utilizar tecnología de CO<sub>2</sub> supercrítico y fórmulas de poliuretanos fueron comprados y entregados a Colombia en septiembre de 2012, y las pruebas de las muestras de espumas para evaluar sus propiedades físicas se realizaron entre octubre de 2012 y marzo de 2013. Los resultados y conclusiones finales del proyecto de demostración se presentará en un seminario internacional durante la Reunión de red del ozono de América Latina, programada para mayo/junio de 2013. La presentación del informe final del proyecto de demostración se propone para la 70ª reunión.

Observaciones de la Secretaría

102. La Secretaría observó el exhaustivo análisis que se llevó a cabo para demostrar la viabilidad técnica de esta tecnología en diferentes espumas y en diferentes situaciones climáticas (es decir, a gran altitud, con temperatura y humedad relativa moderadas y a baja altitud, con temperatura y humedad relativa altas).

103. Al examinar el informe provisional, la Secretaría pidió al Gobierno del Japón que incluyese la siguiente información adicional en el informe final:

- a) La evaluación económica del uso de la tecnología de CO<sub>2</sub> supercrítico patentada y utilizada por Achilles para la aplicación de espumas pulverizadas;
- b) Una descripción del material de poliuretano requerido para la tecnología de CO<sub>2</sub> supercrítico y si este es suministrado únicamente por Achilles (la compañía que tiene la patente de la tecnología) y las regalías para las empresas de espumas que seleccionen la tecnología de CO<sub>2</sub> supercrítico;
- c) Una descripción de las posibles modificaciones que sería necesario hacer en los equipos de pulverización de base (es decir, que usan HCFC-141b) para usar la tecnología de CO<sub>2</sub> supercrítico, así como una indicación de los requisitos mínimos, el nivel de capacitación y las habilidades requeridas para que los operadores de espumas pulverizadas de los países que operan al amparo del Artículo 5 puedan utilizar la tecnología satisfactoriamente; y
- d) Los principales retos enfrentados hasta ahora en el uso de la tecnología en las condiciones específicas en el país y cómo se abordaron.

104. El Gobierno del Japón confirmó que la información solicitada por la Secretaría se incluirá en el informe final del proyecto de demostración.

105. El Comité Ejecutivo pudiera:

- a) Tomar nota con aprecio del informe provisional sobre el proyecto de demostración para validar el uso de CO<sub>2</sub> supercrítico en la fabricación de espumas rígidas de poliuretano pulverizadas presentado por el Gobierno del Japón; y
- b) Pedir al Gobierno del Japón que presente el informe final del proyecto de demostración tomando en cuenta la información adicional solicitada en el documento UNEP/OzL.Pro/ExCom/69/5 a la 70ª reunión.

## **PARTE VI: INFORMES SOBRE ACTIVIDADES DE MOVILIZACIÓN DE RECURSOS**

106. En la 63ª reunión, el Comité Ejecutivo aprobó fondos por valor de 680 000 \$EUA para cuatro proyectos mundiales de movilización de recursos individuales que serían ejecutados por el PNUD (200 000 \$EUA), el PNUMA (100 000 \$EUA), la ONUDI (200 000 \$EUA) y el Banco Mundial (180 000 \$EUA). El objetivo de estos proyectos es movilizar recursos para lograr beneficios climáticos por encima de los que se podrían conseguir con la eliminación de los HCFC únicamente. El PNUD, el PNUMA, la ONUDI y el Banco Mundial presentaron informes provisionales a la 66ª reunión. En la 67ª reunión, el PNUD y la ONUDI prepararon otros informes de progresos, mientras que el Banco Mundial presentó su informe sobre la marcha de las actividades a la 68ª reunión, conforme a la decisión 66/15 l), m), n) y o). El PNUMA, no obstante, no proporcionó el informe que debía presentarse a la 68ª reunión.

107. Al examinar los informes presentados a la 68ª reunión y considerando aquellos presentados anteriormente por los organismos de ejecución, el Comité Ejecutivo, en la decisión 68/4, decidió, entre otras cosas:

- c) En cuanto a la movilización de recursos para lograr beneficios colaterales climáticos:
  - i) Tomar nota de la importante información sobre movilización de recursos proporcionada en el estudio teórico sobre la evaluación de los proyectos de enfriadores presentada en el documento UNEP/OzL.Pro/ExCom/68/10 del que se tomó nota en los párrafos 48 a 54 del presente informe;
  - ii) Pedir que el PNUD, el PNUMA, la ONUDI y el Banco Mundial tomen en cuenta la información proporcionada en el estudio teórico, donde proceda, y que incorporen dicha información en los informes finales sobre movilización de recursos para lograr beneficios colaterales climáticos que se han de presentar a la 69ª reunión en el contexto del mandato establecido en las decisiones 63/20, 63/22, 63/23 y 63/24;
  - iii) Pedir a la Secretaría que, en su examen y resumen de los informes finales, incluya una explicación de los elementos requeridos en las decisiones de la 63ª reunión del Comité Ejecutivo, en consulta con el organismo de ejecución respectivo, y que proporcione sus recomendaciones a la 69ª reunión acerca de los criterios identificados en dichos informes finales que podrían facilitar la consideración de si se debería iniciar o no un plan experimental a corto plazo para movilización de financiación para los proyectos no admisibles.

108. De conformidad con las decisiones 63/20, 63/22, 63/23 y 63/24, los informes finales para estos proyectos de movilización de recursos se presentarán a la 69ª reunión. La Secretaría recibió los informes

finales del PNUD y la ONUDI y un informe provisional del PNUMA, así como un información del Banco Mundial que indicaba que su informe estará disponible para la 70ª reunión.

### **Mundial: movilización de recursos para lograr beneficios colaterales climáticos (PNUMA)**

#### Informe sobre la marcha de las actividades

109. El PNUMA ha proporcionado un breve informe provisional acerca de su proyecto de movilización de recursos, poniendo de relieve que los fondos aprobados estaban destinados a que el PNUMA llevase a cabo un estudio sobre opciones de financiación, talleres regionales sobre cofinanciación y/o una o más aplicaciones experimentales de cofinanciación para uno o más países de bajo volumen de consumo con un plan de gestión de la eliminación de los HCFC, que serían financiadas como actividades de movilización de recursos. El informe indicaba que se habían logrado algunos progresos en la realización del estudio sobre opciones de financiación y proporcionaba la siguiente información de actualización:

- a) Se programaron 20 000 \$EUA de los fondos del proyecto para el componente de estudio;
- b) Se ha preparado el mandato para el estudio;
- c) Se ha identificado a un consultor con experiencia internacional apropiada en relación con los acuerdos multilaterales sobre el medio ambiente, países de bajo volumen de consumo y movilización de recursos y se están finalizando los procedimientos administrativos para contratar a dicho consultor;
- d) El PNUMA está actualmente seleccionando a los miembros del equipo de control de calidad; y
- e) El personal del Programa de asistencia al cumplimiento ha realizado investigaciones de antecedentes iniciales sobre cuestiones de cofinanciación, incluida la documentación existente sobre las experiencias en actividades de movilización de recursos de otros organismos. El proceso de aprendizaje interno del Programa de asistencia al cumplimiento en esta esfera es continuo.

110. Respecto del componente de talleres regionales, el PNUMA ha informado lo siguiente:

- a) Se han asignado fondos de proyecto para el componente de talleres; estos se han suministrado a los equipos regionales del Programa de asistencia al cumplimiento;
- b) Dentro del Programa de asistencia al cumplimiento, se está deliberando para determinar elementos comunes de los programas, la metodología de los talleres y los participantes clave a los que se invitará a fin de garantizar un determinado nivel de normalización y similitud entre las regiones;
- c) Los equipos del Programa de asistencia al cumplimiento están programando los talleres sobre cofinanciación en el contexto de las reuniones de redes regionales previstas para 2013; y
- d) Se ha preparado una lista inicial de posibles invitados/asociados para los talleres; en esta se han tenido en cuenta mecanismos de financiación multilaterales y regionales, expertos en finanzas del carbono del sector privado y otras organizaciones del sector privado. El PNUMA está ampliando actualmente esta lista.

111. El informe del PNUMA se adjunta como Anexo IX.

#### Observaciones de la Secretaría

112. La Secretaría observó que el informe proporcionado por el PNUMA era de índole provisional y no abordaba ninguna de las actividades importantes completadas durante este período. El PNUMA reconoció que había habido algunas demoras en la ejecución del proyecto, pero aseguró que la labor sobre el estudio se encuentra ahora bien encaminada. También observó que el Comité Ejecutivo, en la decisión en la que había aprobado los fondos, había pedido al PNUMA que celebrase los talleres regionales en el marco de las reuniones de redes del Programa de asistencia al cumplimiento a fin de garantizar una buena relación de costo a eficacia, y que los talleres deberían realizarse en fechas que permitieran incorporar las experiencias en actividades de movilización de recursos de otros organismos. En vista del hecho de que las actividades de movilización de recursos de los otros organismos se han completado solo recientemente, el PNUMA consideraba que podría organizar los talleres con una mejor relación de costo a eficacia y de manera más oportuna solo en 2013.

#### Recomendación de la Secretaría

113. El Comité Ejecutivo pudiera:

- a) Tomar nota del informe sobre movilización de recursos presentado por el PNUMA;
- b) Instar al PNUMA:
  - i) A presentar un informe final sobre el estudio para las opciones de financiación para los países de bajo volumen de consumo antes de la 70ª reunión, teniendo en cuenta las decisiones adoptadas por el Comité Ejecutivo acerca de la información específica que debería contener el informe final; y
  - ii) A completar los talleres regionales sobre cofinanciación antes de diciembre de 2013, con miras a suministrar un informe acerca de las conclusiones de estos talleres a la primera reunión de 2014.

### **Mundial: movilización de recursos para lograr beneficios colaterales climáticos (PNUD)**

#### Informe final

114. El PNUD ha presentado su informe final sobre el proyecto de movilización de recursos para lograr beneficios colaterales climáticos de conformidad con las decisiones del Comité Ejecutivo. El informe del PNUD reiteró lo que se había notificado hasta el momento:

- a) Que se habían transferido 1,7 millones de \$EUA de los Estados Unidos de América al PNUD para la demostración y aplicación de tecnologías de bajo potencial de calentamiento atmosférico (PCA) y que utilizan eficientemente la energía en la India, Indonesia y Malasia en los sectores de espumas de poliuretano y aire acondicionado y refrigeración comercial. Además de las demostraciones de tecnología, se espera que estos proyectos proporcionen opciones para políticas y reglamentos para sostener las intervenciones técnicas, recomienden enfoques para contabilizar los beneficios para el clima y establezcan modelos de referencia para costos y plazos de ejecución.
- b) Que en colaboración con el equipo del FMAM-Mitigación del cambio climático del PNUD se estaba desarrollando una propuesta de financiación del Fondo para el Medio

Ambiente Mundial (FMAM) para Indonesia centrada en la financiación de mejoras de eficiencia energética en los sectores de aire acondicionado y refrigeración.

115. El PNUD también ha proporcionado información sobre adicionalidad de los proyectos propuestos; transparencia y gobernanza; las garantías de que estos proyectos no se convertirían en incentivos perversos para los países; el examen de las posibilidades de compartir los beneficios, incluida la devolución de fondos al Fondo Multilateral; adopción de las medidas necesarias para asegurar la sostenibilidad de los proyectos propuestos; eliminación de duplicaciones con proyectos similares; información sobre los costos de las transacciones, conforme a lo requerido por la decisión 63/20 a) ii). Esto se resume en el cuadro 18.

116. En respuesta a la decisión 68/4 c) ii), el PNUD notificó las dos principales lecciones aprendidas del estudio teórico, que podrían ser pertinentes para sus esfuerzos de movilización de recursos, a saber:

- a) La capacidad para movilizar recursos externos: según el PNUD, el enfoque de movilización de recursos de este proyecto fue similar a aquel aplicado para los proyectos de demostración de enfriadores, en los que podían solicitarse fondos de contraparte y de Asistencia oficial para el desarrollo (AOD). Esto permitía al PNUD establecer una relación con el sector privado, el FMAM y las fuentes bilaterales como asociados para las cuatro actividades piloto comprendidas en el marco de este proyecto.
- b) Las posibilidades de repetir el modelo usado para otros países: al examinar en qué medida los proyectos actuales podrían repetirse ante la falta de recursos adicionales del Fondo Multilateral, el PNUD indicó que, si bien había algunos denominadores comunes, las intervenciones requeridas deberían ajustarse según los asociados que participarían en el proceso. Por ejemplo, si se observa la eliminación de los HCFC en los planes sectoriales, los sectores de fabricación son bastante diferentes de las compañías y propietarios de edificios de los proyectos de demostración relacionados con enfriadores. El PNUD también consideraba que la asistencia bilateral había resultado ser más rápida y confiable, con menos intervenciones de órganos externos. También indicó que la opción de cofinanciación a través de arreglos de financiación innovadores tenía más posibilidades de generar una financiación adicional significativa. Si bien este enfoque ofrecía mejores posibilidades de repetición, la complejidad de los arreglos institucionales podría causar demoras dentro de los plazos límite para el cumplimiento de parte de los países.

117. El informe proporcionado por el PNUD se adjunta como Anexo X.

#### Observaciones de la Secretaría

118. Al examinar el informe, la Secretaría observó que este era similar a aquel presentado a la 67ª reunión, y que la nueva información que contenía se relacionaba únicamente con la información adicional requerida para cumplir con la decisión 68/4 c) ii). Observó que se incluía un análisis muy somero del enfoque que había adoptado y que, al considerar los proyectos que ya se habían financiado, no se había proporcionado información acerca de los progresos en la ejecución.

119. La Secretaría formuló comentarios y observaciones de fondo al PNUD, centrándose en las esferas específicas que se esperaba que se incluyesen en el informe final, además de aquellas ya incluidas. Específicamente, la Secretaría pidió aclaraciones sobre lo siguiente:

- a) De qué manera los fondos suministrados en este proyecto permitían al PNUD movilizar los recursos adicionales y cómo se utilizaban dichos fondos; y



- b) Qué nuevos enfoques se aplicaron para obtener los recursos actuales indicados por el PNUD, así como el proceso de toma de decisiones/criterios adoptados para decidir acerca de los posibles asociados y los países objetivo.

120. Al examinar el material proporcionado por el PNUD acerca de los elementos requeridos conforme a la decisión 63/20, la Secretaría señaló que se brindaba solamente información muy general. La Secretaría pidió al PNUD que aclarase más detalladamente sus puntos de vista sobre algunos aspectos de estos elementos, como sigue:

- a) Si el PNUD consideraba la adicionalidad de los proyectos propuestos, tomando en cuenta los mandatos específicos de los órganos de financiación específicos (es decir, el FMAM y el Fondo Multilateral), y si los fondos proporcionados por el FMAM se podrían considerar adicionales a los recursos existentes a pesar del hecho de que estos no llegaban al Fondo directamente;
- b) Si el PNUD consideraba el concepto de los incentivos perversos, no solo en el contexto de la tecnología, sino también el aspecto de la financiación de proyectos similares en el futuro;
- c) De qué manera el PNUD consideraba la sostenibilidad no solo de los proyectos específicos para los que se habían movilizado recursos sino del enfoque de movilización de recursos en general; y
- d) Al considerar los costos de transacción, de qué manera este enfoque (con financiación específica para movilización de recursos) difería del ejercicio de preparación de proyecto usual que llevaba a cabo el PNUD, en el que se proporcionaban fondos a través del Fondo Multilateral, y si los fondos proporcionados para este fin contribuirían a movilizar más recursos en el futuro.

121. La Secretaría también pidió al PNUD que proporcionase conclusiones en la parte final del informe, teniendo en cuenta que el Comité Ejecutivo había pedido que se presentase un informe final y no solamente una actualización.

122. En su respuesta, el PNUD proporcionó la siguiente información:

- a) Los fondos se utilizaban de la misma manera que los fondos de preparación de proyecto; sin embargo, con una finalidad específica (es decir, mejoras de eficiencia energética que no son admisibles en el contexto del Fondo Multilateral), y cubrían costos adicionales para expertos técnicos, tiempo de personal, viajes, talleres y reuniones necesarios para que el PNUD pudiese llevar a cabo este ejercicio.
- b) Con respecto a nuevos enfoques, el PNUD agregó además que el denominador común clave entre los enfoques pasado y actual sería asegurar que los beneficiarios del proyecto sean estables y sostenibles desde el punto de vista financiero, como para cualquier proyecto con financiación subsidiada.
- c) En relación con los criterios para la toma de decisiones, el PNUD indicó que en el caso de los fondos del Gobierno de los Estados Unidos, el PNUD había sido seleccionado a través de un proceso de adquisiciones gubernamentales. Respecto del FMAM, en su calidad de organismo director para el plan de gestión de la eliminación de los HCFC para Indonesia, había sido la opción para considerar áreas de eficiencia energética vinculadas con la ejecución de su plan de gestión de la eliminación de los HCFC.

- d) El PNUD también indicó que el ejercicio de movilización de recursos no habría sido posible sin la financiación proporcionada por el Comité Ejecutivo, y que se requeriría más financiación institucional para continuar con este enfoque. Desde su punto de vista, este ejercicio debería considerarse siempre como fuera del mandato actual del organismo y, por lo tanto, debía estudiarse como tal.

123. La Secretaría examinó las respuestas proporcionadas por el PNUD y es de la opinión de que el informe final actual, si bien proporciona información sobre los progresos del ejercicio de movilización de recursos, no proporcionaba un análisis de fondo sobre el proyecto general o bien conclusiones que se pudiesen usar en el futuro. La opinión del PNUD era que se podría llegar a dichas conclusiones solamente después de que el Comité Ejecutivo hubiera examinado los resultados descritos.

#### Recomendación de la Secretaría

124. El Comité Ejecutivo pudiera tomar nota del informe final sobre movilización de recursos para lograr beneficios colaterales climáticos presentado por el PNUD y pedir al PNUD que prepare un análisis final exhaustivo de los resultados que figuraban en el informe, a efectos de presentarlo al Comité Ejecutivo en la 71ª reunión a más tardar.

### **Mundial: movilización de recursos para la eliminación de los HCFC y para lograr beneficios colaterales climáticos (ONUDI)**

#### Informe final

125. La ONUDI ha presentado su informe final sobre el proyecto de movilización de recursos para lograr beneficios climáticos de conformidad con las decisiones del Comité Ejecutivo. Se centró en el FMAM como posible fuente de financiación y asociado para estas actividades, y seleccionó a Gambia, Marruecos y Viet Nam para proyectos en los sectores de pesca y procesamiento de alimentos. En su informe final, la ONUDI explicó la situación de los tres proyectos que se habían identificado en su informe provisional anterior. Para Gambia y Viet Nam, el concepto de proyecto incluía tres componentes principales requeridos para promover el desarrollo de un mercado para refrigerantes de bajo PCA en la refrigeración industrial (Gambia) y el sector de almacenamiento en frío (Viet Nam), que se describen a continuación:

- a) Apoyo normativo y regulatorio
- b) Transferencia de tecnología; y
- c) Creación de capacidad y concienciación.

126. El proyecto para Marruecos preveía la demostración de un sistema de cascada para CO<sub>2</sub> y HFO-1234ze a fin de eliminar el uso de SAO, reducir las emisiones de gases de efecto invernadero y mejorar la eficiencia energética de los buques de pesca de altura.

127. La ONUDI indicó que, para los proyectos tanto para Gambia como para Viet Nam, las propuestas de tamaño mediano habían sido avaladas por las dependencias nacionales del ozono de ambos países y se esperaba que pronto fuesen presentadas a la Secretaría del FMAM para su aprobación. La presentación y aprobación del proyecto de tamaño completo para Marruecos, por otro lado, se planificaba para el sexto período de reposición del FMAM, que comenzaba en 2014.

128. La ONUDI también proporcionó información detallada sobre adicionalidad de los proyectos propuestos; transparencia y gobernanza; las garantías de que estos proyectos no se convertirían en incentivos perversos para los países; el examen de las posibilidades de compartir los beneficios, incluida

la devolución de fondos al Fondo Multilateral; adopción de las medidas necesarias para asegurar la sostenibilidad de los proyectos propuestos; eliminación de duplicaciones con proyectos similares; información sobre los costos de las transacciones, conforme a lo requerido por la decisión 63/23 a) ii). Esto se resume en el cuadro 18.

129. La ONUDI también tomó en cuenta la decisión 68/4 c) ii) y proporcionó las lecciones aprendidas con el proyecto de enfriadores, centrándose en particular en el proyecto regional de enfriadores para África, que presentaba similitudes con los países que actualmente se consideraban como objetivos para los esfuerzos de movilización de recursos. La ONUDI informó de que con el proyecto de enfriadores para África se habían establecido diferentes mecanismos financieros para los diversos países participantes, principalmente porque varios de los países beneficiarios no contaban con medios financieros para los pagos iniciales requeridos para los enfriadores nuevos. La ONUDI mencionó que se podría aplicar un enfoque similar para los proyectos en que se sustituyen sistemas que utilizan HCFC. Actualmente, el proyecto en Gambia explorará el uso de un fondo renovable, mientras que el proyecto para Viet Nam considerará el uso de préstamos en condiciones favorables.

130. El informe también indicaba que el proyecto de enfriadores para África había proporcionado una valiosa experiencia en la creación de confianza entre los diferentes interesados y asociados, un resultado positivo que beneficia a proyectos futuros similares. La ONUDI mencionó que considerará el enfoque para los proyectos de enfriadores cuando desarrolle proyectos similares para la sustitución de sistemas que utilizan HCFC.

131. El informe proporcionado por la ONUDI se adjunta como Anexo XI.

#### Observaciones de la Secretaría

132. La Secretaría formuló comentarios y observaciones de fondo a la ONUDI, y pidió al organismo que presentase información más detallada sobre los mismos elementos solicitados al PNUD (párrafos 118 y 119.b) anteriores). La Secretaría también pidió a la ONUDI que incluyera conclusiones en la parte final del informe.

133. En vista de lo anterior, la ONUDI había proporcionado un informe revisado y actualizado, en el que se tomaban en cuenta los comentarios y las observaciones formulados por la Secretaría. Todos los elementos que se habían solicitado se integraron por completo en la ponencia revisada suministrada por la ONUDI.

134. En el informe, se llegaba a la conclusión de que, considerando su índole pionera, este proyecto de movilización de recursos habían sido un verdadero reto para la ONUDI a pesar de que, desde una perspectiva institucional, la organización siempre había tenido en cuenta elementos de eficiencia energética en la selección de alternativas que no utilizan SAO. El proceso de explorar fuentes de financiación, diseñar nuevas ideas, selección de países objetivos y asegurar que existan sinergias con los proyectos ya aprobados en el marco del Fondo Multilateral ayudó a la ONUDI a comprender mejor las complejas cuestiones que conlleva generar beneficios colaterales climáticos para los proyectos de eliminación de los HCFC. También ha permitido a la ONUDI lograr progresos en el desarrollo de mecanismos para fortalecer las sinergias dentro y fuera de la organización, una experiencia que brinda mejores oportunidades para la movilización de recursos en el futuro.

#### Recomendación de la Secretaría

135. El Comité Ejecutivo pudiera tomar nota del informe final del estudio de movilización de recursos para lograr beneficios colaterales climáticos presentado por la ONUDI.

**Mundial: movilización de recursos para estudiar los beneficios colaterales de la eliminación de los HCFC (Banco Mundial)**

Progresos

136. El Banco Mundial informó a la Secretaría, en una comunicación de fecha 20 de febrero de 2013, de que no podría presentar un informe final a esta reunión. El Banco Mundial mencionó que el informe requiere otros aportes y un proceso de examen entre pares interno antes de poder finalizar su redacción. También indicó que proporcionaría por adelantado la sección sobre su experiencia con los proyectos de inversión para enfriadores conforme a la decisión 68/4 c) ii).

137. El Banco Mundial informó de que el informe final se presentaría para la consideración del Comité Ejecutivo en la 70ª reunión.

Observaciones de la Secretaría

138. En las deliberaciones con el Banco Mundial, se informó a la Secretaría de que la labor sobre el estudio estaba en curso; no obstante, se esperaba que concluyese en breve. Si bien el Banco Mundial había proporcionado un borrador de la sección del estudio que trataba el proyecto de enfriadores, la Secretaría no había incluido un examen de esta sección dado que no se trataba aún de una versión final. Este examen se realizaría una vez que se recibiese el informe final.

Recomendación de la Secretaría

139. El Comité Ejecutivo pudiera instar al Banco Mundial a presentar un informe final sobre el estudio para lograr beneficios colaterales climáticos antes de la 70ª reunión.

## Cuadro 18

Resumen de los elementos de las decisiones 63/20 a) y 63/23 a)  
presentados por el PNUD y la ONUDI

	<b>PNUD</b>	<b>ONUDI</b>
Adicionalidad de los proyectos propuestos	Los proyectos propuestos se dirigen específicamente a resultados que son adicionales a los objetivos de eliminación de HCFC, ya sea a través del uso de otras alternativas o alternativas emergentes de bajo PCA o logrando mejoras de eficiencia energética o ambos, que normalmente no son admisibles para el Fondo Multilateral o financiados por este.	Los proyectos propuestos para Gambia, Marruecos y Viet Nam podrían cumplir con la definición de adicionalidad, dado que no solo eliminarían SAO sino que identificarían y proporcionarían además soluciones para los obstáculos a la eficiencia energética en estas conversiones.
Transparencia y gobernanza, además de tratar de la liquidez;	Los fondos movilizados se gestionarían y utilizarían conforme a las normas procedimientos del PNUD y de conformidad con los arreglos con los donantes respectivos. Estos fondos serían contabilizados y notificados en forma separada de los fondos del Fondo Multilateral. No se espera que la financiación movilizada sea adecuada para cubrir todos los costos y, por lo tanto, se obtendrían compromisos de cofinanciación de las empresas participantes en la medida que fuese necesario.	La ONUDI ha desarrollado un Sistema de Planificación de los Recursos Institucionales (ERP) para mejorar la transparencia, el flujo de información, la eficiencia y la eficacia. El sistema facilita el flujo de información entre todas las funciones empresariales dentro de una organización y gestiona las conexiones con los interesados externos. La ONUDI también ha preparado una carpeta que proporciona información sobre buenas prácticas de organización, gestión y gobernanza. Ambos se utilizarán como principios rectores en la ejecución de los proyectos de parte de la ONUDI.
Garantías de que estos proyectos no se convertirán en incentivos perversos para los países;	Los resultados técnicos y otros para los subproyectos están claramente definidos. Los fondos movilizados se desembolsarían a los empresas participantes u otros beneficiarios por medio de acuerdo basados en el desempeño, con hitos, indicadores y objetivos claros. Se aplicará la diligencia requerida en los acuerdos con los donantes.	Existen preocupaciones en cuanto a que los pagos de carbono por la destrucción de SAO pueden ocasionar que las SAO se contaminen en forma deliberada para la destrucción, lo que generaría incentivos perversos. Sin embargo, ninguna de las propuestas actuales de movilización de recursos está dirigida a la destrucción de SAO, por lo que es poco probable que esto suceda. La ONUDI también considera que existen políticas del Fondo que protegen contra los incentivos perversos (es decir, examen técnico de los proyectos, acuerdos de planes de gestión de la eliminación de los HCFC, fechas límite, etc.).
Examen de las posibilidades de compartir los beneficios, incluida la devolución de fondos al Fondo Multilateral;	La finalidad de estos esfuerzos de movilización de recursos es proporcionar una guía/plantilla acerca de cómo se pueden desarrollar e implementar tales proyectos con diversos objetivos y fuentes de financiación. Ninguno de estos	El intercambio de ideas, el proceso de exploración de las posibles fuentes de cofinanciación, el intercambio de información y conocimientos con otras ramas técnicas de la ONUDI ayudaron, todos ellos, a lograr una mejor comprensión de la compleja cuestión de generación de

	<b>PNUD</b>	<b>ONUDI</b>
	<p>proyectos prevé la generación de ingresos o ganancias. Ninguno de los recursos externos movilizados como resultado de este esfuerzo se puede devolver al Fondo Multilateral. En el caso de que hubiese fondos no utilizados de los 200 000 \$EUA originales proporcionados por el Fondo Multilateral, estos se podrían devolver al Fondo conforme a las condiciones habituales del acuerdo entre el PNUD y el Fondo Multilateral.</p>	<p>beneficios colaterales climáticos. Asimismo, la ONUDI ha estado elaborando mecanismos para fortalecer las sinergias y la cooperación con otras ramas internas, abordando el cambio climático y la eficiencia energética; esto promete interesantes oportunidades para el futuro.</p>
<p>Asegurar la sostenibilidad de los proyectos propuestos;</p>	<p>Se ha aplicado y se aplicará la debida diligencia para asegurar que los beneficiarios seleccionados sean sólidos desde el punto de vista financiero y técnico. También se espera que se requerirá cofinanciación de los beneficiarios en la mayoría de las intervenciones previstas. Esto garantizará la sostenibilidad.</p>	<p>Los proyectos están dirigidos a identificar las mejores opciones de tecnología para sustituir las instalaciones de refrigeración industrial a base de HCFC-22 en diferentes sectores, climas y ambientes. Las conversiones piloto permitirán generar experiencias sobre la adopción de tecnologías de bajo impacto ambiental en la conversión de las instalaciones de refrigeración industrial existentes, incluidos los costos de la conversión y la evaluación de los beneficios climáticos. Los proyectos proporcionarán información sobre los mecanismos financieros más adecuados para promover la conversión de las instalaciones de refrigeración industrial similares restantes, incluidos buques de pesca.</p>
<p>Que proyectos similares no se dupliquen;</p>	<p>El PNUD ha velado por asegurar que se seleccionen subproyectos y beneficiarios con los que el PNUD ya tiene un claro mandato de trabajar en los sectores/subsectores específicos en el contexto de la etapa I de los planes de gestión de la eliminación de los HCFC en los países correspondientes. El PNUD también se asegurará que se eviten solapamientos con otras iniciativas similares de otras fuentes de financiación. El PNUD estará listo, no obstante, para la coordinación con otros organismos a fin de evitar toda duplicación de esfuerzos.</p>	<p>El término doble contabilización se puede referir a la doble monetización que se produce cuando una misma reducción o eliminación de emisiones de gases de efecto invernadero (GEI) se monetiza una vez como crédito de GEI y una segunda vez como derechos de emisión de GEI<sup>15</sup>. Se han elaborado normas para evitar ambas posibilidades en todas las normas de protocolos reconocidos que se han desarrollado para hacer un seguimiento de los derechos de emisión de carbono<sup>16</sup>. Se podrían adoptar normas similares en los proyectos de movilización de recursos del Fondo Multilateral a fin de evitar que los participantes en el programa reclamen varias veces apoyo financiero para el mismo proyecto. Los programas sobre GEI pueden abordar este aspecto por medio de procedimientos de vigilancia tales como un registro, que se podría desarrollar para los proyectos de movilización de recursos.</p>

	<b>PNUD</b>	<b>ONUDI</b>
Información sobre los costos de las transacciones.	La información sobre los costos de las transacciones estaría disponible solamente una vez que se hubiesen completado los subproyectos. La fecha de terminación esperada de estos proyectos sería antes de fines de 2014.	La ONUDI no tiene previsto solicitar financiación del carbono para los proyectos de movilización de recursos que logren reducciones de energía como resultado de la actualización de la tecnología. Por lo tanto, la ONUDI no considera que los costos de las transacciones se apliquen en este momento.

## RECOMENDACIONES

140. El Comité Ejecutivo pudiera considerar:

- a) Tomar nota:
  - i) Con aprecio, de los informes de situación y de los informes sobre proyectos con demoras en la ejecución que presentaron a la Secretaría los Gobiernos de España, Italia, el Japón y la República Checa, los cuales se examinan en el documento UNEP/OzL.Pro/ExCom/69/5;
  - ii) De que se presentaron 81 informes de ejecución de programa de país para el año 2011 utilizando del sistema basado en la Web, que se inició el 25 de abril de 2007;
  - iii) De que la Secretaría y los organismos de ejecución podrían adoptar las medidas establecidas de conformidad con las evaluaciones de la Secretaría, e informar y notificar a los gobiernos y organismos de ejecución según procediese;
  - iv) Del informe de verificación del consumo de 2007 a 2009 del plan de gestión de la eliminación definitiva de Zambia, que demuestra que el consumo se mantuvo por debajo del consumo máximo permitido especificado para 2007 a 2009, conforme a lo aprobado en el acuerdo del plan de gestión de la eliminación definitiva;
  - v) Con aprecio, del informe del PNUMA sobre las medidas tomadas respecto de los proyectos en Haití a fin de mejorar sus componentes de capacitación y la transferencia de fondos y proporcionar asesoría técnica suficiente para la toma de decisiones sobre tecnología;
  - vi) Del informe de verificación del consumo de 2011 y 2012 y del plan de ejecución anual de 2011 y 2012 del plan nacional de eliminación de CFC en Brasil;
  - vii) Con aprecio, del informe provisional sobre el proyecto de demostración para validar el uso de CO<sub>2</sub> supercrítico en la fabricación de espumas rígidas de poliuretano pulverizadas presentado por el Gobierno del Japón;
  - viii) Del informe sobre movilización de recursos presentado por el PNUMA;
  - ix) De los informes finales sobre movilización de recursos para lograr beneficios colaterales climáticos presentados por el PNUD y la ONUDI;

- b) Pedir:
- i) Informes de situación adicionales sobre los proyectos indicados en los Anexos VI y VII del presente documento;
  - ii) Que se presenten a la 70ª reunión informes de situación adicionales específicos sobre los 29 proyectos con cuestiones pendientes enumerados en el Anexo VIII;
  - iii) A los Gobiernos de Francia e Israel que presenten sus informes sobre demoras en la ejecución a la 70ª reunión del Comité Ejecutivo;
  - iv) A los organismos de ejecución que consideren si se requieren otros proyectos relacionados con el metilbromuro en los siguientes países que tienen proyectos de eliminación parcial de metilbromuro o que están exentos respecto del cumplimiento conforme a la decisión XV/12: Argelia, Argentina, China, Congo, Nigeria, República Democrática del Congo, Sudán, Swazilandia, Túnez y Turquía;
  - v) A la ONUDI que presente a la 70ª reunión un informe de progresos con la situación actual de la ejecución de los proyectos de metilbromuro en la Argentina, Egipto y Marruecos, incluyendo una explicación detallada acerca de por qué los niveles de consumo notificados con arreglo al Artículo 7 del Protocolo de Montreal en 2001 son superiores a aquellos permitidos en los respectivos acuerdos con el Comité Ejecutivo y los planes de acción propuestos para cumplir los objetivos conforme a lo requerido en dichos acuerdos;
  - vi) A los Gobiernos de Guinea-Bissau, Kenya, Mozambique, Panamá, Papua Nueva Guinea y Timor-Leste, por segunda reunión consecutiva excepto para Guinea-Bissau, que informen a la Secretaría, con carácter urgente, acerca de si sus sistemas de concesión de licencias funcionan “satisfactoriamente”, “muy bien” o “no muy bien”;
  - vii) Al PNUMA que proporcione una actualización sobre la producción y la presentación del informe financiero y de actividades y sobre la firma del nuevo acuerdo de fortalecimiento institucional para Haití que permitirá liberar el saldo de fondos;
  - viii) Al PNUD que complete las actividades restantes descritas en el informe sobre la ejecución del plan nacional de eliminación de CFC en el Brasil, que presente un informe de terminación de proyecto una vez que el plan nacional de eliminación de CFC haya sido terminado en 2013, conforme al formato indicado en la 65ª reunión y según lo propuesto por el PNUD, y que devuelva cualquier saldo restante al Fondo Multilateral después de que se hayan completado las actividades restantes;
  - ix) Al Gobierno del Japón que presente a la 70ª reunión el informe final del proyecto de demostración para validar el uso del CO<sub>2</sub> supercrítico en la fabricación de espumas rígidas de poliuretano pulverizadas en Colombia, tomando en consideración la información adicional solicitada en el documento UNEP/OzL.Pro/ExCom/69/5;
  - x) Al PNUD que prepare un análisis final exhaustivo de los resultados indicados en el informe final sobre movilización de recursos para lograr beneficios colaterales



climáticos presentado por el PNUD, a efectos de presentarlo al Comité Ejecutivo en la 71ª reunión a más tardar;

- c) Instar al PNUMA:
  - i) A que presente un informe final sobre el estudio para las opciones de financiación para los países de bajo volumen de consumo antes de la 70ª reunión, teniendo en cuenta las decisiones adoptadas por el Comité Ejecutivo acerca de la información específica que debería contener el informe final; y
  - ii) A que complete los talleres regionales sobre cofinanciación antes de diciembre de 2013, con miras a suministrar un informe acerca de las conclusiones de estos talleres a la primera reunión de 2014.
- d) Instar al Banco Mundial a que presente antes de la 70ª reunión un informe final sobre el estudio para lograr beneficios colaterales climáticos.

## Annex I

### **DETAILED ANALYSIS OF THE STATUS OF IMPLEMENTATION IN COUNTRIES SUBJECT TO DECISIONS OF THE PARTIES ON COMPLIANCE AND THOSE WHOSE LATEST CONSUMPTION DATA EXCEEDS THE CONTROL MEASURES**

1. Annex I presents the detailed analysis of the status of implementation in countries subject to decisions of the Parties on compliance and those whose latest consumption data exceeds the next control measures. The data tables in Appendices I-V indicate whether a country has received a total phase-out agreement for a specific controlled substance. The analysis of halons indicates whether a halon banking activity has been approved. Halon banking guidelines require that regulations facilitating production and import bans are established within six months of the establishment of a reclamation centre (decision 18/22). The methyl bromide analysis (Appendix II) indicates further whether a country has received funding for a phase-out to meet the 2005 control measures. Appendices III and IV present information on the carbon tetrachloride (CTC) and methyl chloroform (TCA) phase-out, respectively. Appendix V provides information on HCFC consumption only.

#### **ANALYSIS OF COMPLIANCE FOR CFCs (Appendix I)**

2. Countries have been grouped into one category: (a) those whose latest consumption exceeds the 2010 100 per cent phase-out target.

(a) Countries whose latest consumption exceeds the 2010 phase-out target

3. This category consists of 4 countries which have a reported consumption of CFC amounting to 203.7 ODP tonnes.

4. The Executive Committee has approved national CFC phase-out agreements for all of these countries.

5. All of these 4 countries that have latest consumption that exceeded zero consumption either have essential use authorizations for CFC consumption (Argentina, Bangladesh and China,) as per decision XXII/4 or emergency essential use for CFC-113 2010-2011 consumption as per decision XXII/4 para. 7 (Dominican Republic (the)).

#### **ANALYSIS OF COMPLIANCE FOR HALONS**

6. Seventy-five countries have reported no consumption of halons between 1995 and 2011.

7. Sixty-one countries have received support for halon banking activities or phase-out agreements. This includes those countries participating in regional halon banks. Halon banking is presumed to be the last funded activity in the halon consumption sector for most countries but there are some halon phase-out activities that are part of multi-sectoral phase-out agreements.

8. Countries have been grouped into the following one category: (a) those whose latest consumption exceeds the 2010 100 per cent phase-out target.

(a) Countries whose latest consumption exceeds the 2010 phase-out target

9. All countries are in compliance with the 100 per cent halon baseline reduction target.

## **ANALYSIS OF COMPLIANCE FOR METHYL BROMIDE (Appendix II)**

10. This section presents the analysis for compliance with methyl bromide control measures. It should be noted that all data reported and used in this analysis relate to controlled use only, which means that the data exclude quarantine and pre-shipment (QPS). 145 of the 147 Article 5 countries that have ratified the Copenhagen Amendment have reported complete baseline data. Of these 147 countries, 58 reported zero for both the baseline consumption and the latest consumption.

11. One-hundred Article 5 countries have received support from the Multilateral Fund for methyl bromide activities and/or projects. This includes projects that will lead to a complete phase-out of methyl bromide in 62 of these countries, partial phase-out in an additional 9, and other forms of assistance received by 29.

12. Countries have been grouped into the following two categories: (a) those whose latest consumption exceeds the 20 per cent reduction target of 2005 that applies until December 2014; and (b) those whose latest consumption exceeds the 2015 100 per cent phase-out target. Appendix II identifies those countries that have not ratified the Copenhagen Amendment.

(a) Countries whose latest consumption exceeds the 20 per cent MB baseline reduction target

13. All countries are in compliance with the 20 per cent methyl bromide baseline reduction target.

(b) Countries whose latest consumption exceeds the 2015 phase-out target

14. This category consists of 25 countries that may need to meet additional combined reduction amounting to 1,898.5 ODP tonnes by 2015 in order to comply with the 100 per cent reduction targets. Of the 25 countries, 19 countries have approved projects that will lead to complete phase-out of methyl bromide. Five countries may need additional assistance from the Multilateral Fund to achieve the phase-out of methyl bromide by 2015. The remaining country (Singapore) is currently not eligible to receive funding from the Multilateral Fund.

## **CARBON TETRACHLORIDE (CTC) (Appendix III)**

15. This section presents the analysis of compliance with CTC control measures. All data reported and used in this analysis are those related to controlled use only, which excludes feedstock. Reported CTC consumption was not differentiated by specific end use, such as solvents, process agents and laboratory use.

16. Of the 146 countries with reported baseline data, 90 reported zero both for the baseline and the latest consumption.

17. Countries have been grouped into the following one category: (a) those whose latest consumption exceeds the 2010 100 per cent phase-out target. Appendix III specifies that all countries have ratified the London Amendment.

(a) Countries whose latest consumption exceeds the 2010 phase-out target

18. This category consists of 4 countries that may need to phase out additional CTC amounting to 259.8 ODP tonnes to meet the 100 per cent reduction by 2010. Three of the 4 countries have received funding for CTC phase-out agreements or projects from the Multilateral Fund. The Republic of Korea has agreed not to receive CTC funding from the Multilateral Fund.

19. Countries with latest CTC consumption that exceeded zero consumption have process agent use exemptions for CTC consumption as per decision XXII/8 (China) or CTC consumption for laboratory and analytical uses (Croatia, Nepal), except Republic of Korea (the).

#### **METHYL CHLOROFORM (TCA) (Appendix IV)**

20. This section presents the analysis for compliance with TCA control measures. Of the 146 countries that have reported baseline data, 103 reported zero both for the baseline and the latest consumption.

21. Countries have been grouped into two categories: (a) those whose latest consumption exceeds the 70 per cent reduction target of 2010; and (b) those whose latest consumption exceeds the 2015 100 per cent phase-out target. Appendix IV specifies that all countries have ratified the London Amendment.

(a) Countries whose latest consumption exceeds the 70 per cent TCA baseline reduction target

22. All countries are in compliance with the 70 per cent TCA baseline reduction target.

(b) Countries whose latest consumption exceeds the 100 per cent TCA baseline reduction target

23. This category consists of one country (Republic of Korea (the)) that may need to meet additional combined reduction amounting to 10 ODP tonnes by 2015 in order to comply with the 100 per cent reduction target. The Republic of Korea is not eligible to receive TCA funding from the Multilateral Fund.

#### **HCFCs (Appendix V)**

24. Appendix V also includes an analysis of the latest consumption and baseline data on HCFCs and indicates whether the country had received HPMP preparation funding, the number of investment projects approved, the number of demonstration projects approved, total phase-out approved in ODP tonnes and activities planned in the 2013 business plans. All of the 148 countries already reported both the baseline and the latest consumption except South Sudan.

25. All countries have received HPMP project preparation funds except the Republic of Korea, Singapore, South Sudan and the United Arab Emirates. The Republic of Korea and Singapore had agreed not to receive funding from the Multilateral Fund.

(a) Countries whose latest consumption exceeds the freeze reduction target

26. This category consists of 68 countries that may need to phase out additional HCFC amounting to 2,547.3 ODP tonnes to meet the freeze reduction target by 2013.

27. Sixty-three of the 68 countries have received funding for HCFC phase-out agreements from the Multilateral Fund. Of the 5 remaining countries, one country has submitted HCFC phase-out projects to the 69<sup>th</sup> meeting.



## Appendix I

### CFC ANALYSIS

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Compliance Decision	2011 Action Plan Target	2012 Action Plan Target	Percentage Over 85% Reduction	Percentage Over 100% Reduction	Ongoing Phase-Out (As of March 2013)	Phase-Out in 2013 Business Plans	Remarks	Date Approved
Argentina	A7	2011	4,697.2	28.3				0%	*	Yes	No	Non-LVC country with an approved terminal CFC phase-out plan	Apr-04
Bangladesh	A7	2011	581.6	48.0	Decision XXI/17			0%	*	No	No	Non-LVC country with an approved terminal CFC phase-out plan	Apr-04
China	A7	2011	57,818.7	126.9				0%	*	Yes	No	Non-LVC country with an approved terminal CFC phase-out plan	Apr-2005 (Last agreement approved by the ExCom for CFC)
Dominican Republic (the)	A7	2011	539.8	0.5				0%	**	No	No	Non-LVC country with an approved terminal CFC phase-out plan	Apr-05

\*For essential use authorizations for CFC consumption.

\*\* For emergency essential use for CFC-113 2010-2011 consumption per decision XXII/4 para. 7.



Appendix II

METHYL BROMIDE ANALYSIS

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Compliance Decision	2011 Action Plan Target	2012 Action Plan Target	Percentage Over 20% Reduction	Percentage Over 100% Reduction	Ongoing Phase-Out (As of March 2013)	Phase-Out in 2013 Business Plans	Remarks	Date Approved	Ratified Copenhagen Amendment
Algeria	A7	2011	4.7	1.8				0%	Over	No	No	Country with approved projects that would as a minimum enable compliance with the 2005 MB limit	Nov-06	Yes
Angola	A7	2011	NDR	0.0						No	No			Yes
Argentina	A7	2011	411.3	291.3				0%	Over	Yes	No	Country with approved projects that would as a minimum enable compliance with the 2005 MB limit	Mar-02	Yes
Chile	A7	2011	212.5	166.3	Decision XVII/29			0%	Over	No	Yes	Country with approved projects for complete phase-out of MB	Apr-10	Yes
China	A7	2011	1,102.1	174.8				0%	Over	Yes	Yes	Country with approved projects for complete phase-out of MB (Possible additional funding for 100 ODP tonnes of MB used as a soil fumigant in ginseng crop).	Dec-03	Yes
Costa Rica	A7	2011	342.5	106.1				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Dec-01	Yes
Egypt	A7	2011	238.1	133.2				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Nov-08	Yes
Guatemala	A7	2011	400.7	211.1	Decision XVIII/26			0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Nov-09	Yes
Guinea	A7	2011	NDR	0.0						No	No			Yes
Honduras	A7	2011	259.4	86.8	Decision XVII/34			0%	Over	No	No	Country with approved projects for complete phase-out of MB	Nov-06	Yes



Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Compliance Decision	2011 Action Plan Target	2012 Action Plan Target	Percentage Over 20% Reduction	Percentage Over 100% Reduction	Ongoing Phase-Out (As of March 2013)	Phase-Out in 2013 Business Plans	Remarks	Date Approved	Ratified Copenhagen Amendment
Iran (Islamic Republic of)	A7	2011	26.7	0.7				0%	Over	No	No	Country with approved projects for complete phase-out of MB	Nov-05	Yes
Jamaica	A7	2011	4.9	1.2				0%	Over	No	No	Country with approved projects for complete phase-out of MB	Nov-05	Yes
Jordan	A7	2011	176.3	19.2				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Nov-99	Yes
Kenya	A7	2011	217.5	8.5				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Nov-2002 and Nov-2011	Yes
Malaysia	A7	2011	14.6	3.5				0%	Over	No	No	Country with approved projects for complete phase-out of MB	Jul-04	Yes
Mexico	A7	2011	1,130.8	488.2				0%	Over	Yes	Yes	Country with approved projects for complete phase-out of MB	Apr-08	Yes
Morocco	A7	2011	697.2	50.9				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Nov-08	Yes
Saudi Arabia	A7	2011	204.1	29.4				0%	Over	No	No	Country with approved projects for complete phase-out of MB	Nov-07	Yes
Singapore	A7	2011	5.0	0.8				0%	Over	No	No			Yes
Sudan (the)	A7	2011	3.0	1.2				0%	Over	No	No	Country with approved projects that would as a minimum enable compliance with the 2005 MB limit	Nov-02	Yes
Thailand	A7	2011	183.0	20.7				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Dec-04	Yes
Trinidad and Tobago	A7	2011	1.7	0.1				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Nov-11	Yes

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Compliance Decision	2011 Action Plan Target	2012 Action Plan Target	Percentage Over 20% Reduction	Percentage Over 100% Reduction	Ongoing Phase-Out (As of March 2013)	Phase-Out in 2013 Business Plans	Remarks	Date Approved	Ratified Copenhagen Amendment
Tunisia	A7	2011	8.3	6.6				0%	Over	No	No	Country that has not received assistance to achieve the 2005 MB phase-out target (Decision XV/12)		Yes
Uruguay	A7	2011	11.2	6.0	Decision XVII/39	6.00	6.00	0%	Over	No	No	Country with approved projects for complete phase-out of MB	Jul-01	Yes
Viet Nam	A7	2011	136.5	69.6				0%	Over	Yes	Yes	Country with approved projects for complete phase-out of MB	Nov-06	Yes
Yemen	A7	2011	54.5	18.1				0%	Over	Yes	No	Country with approved projects for complete phase-out of MB	Nov-08	Yes
Zimbabwe	A7	2011	557.0	2.4				0%	Over	No	No	Country with approved projects for complete phase-out of MB	Nov-06	Yes



**Appendix III**

**CTC ANALYSIS**

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Compliance Decision	2011 Action Plan Target	2012 Action Plan Target	Percentage Over 85% Reduction	Percentage Over 100% Reduction	Ongoing Phase-Out (As of March 2013)	Phase-Out in 2013 Business Plans	Remarks	Date Approved	Ratified London Amendment
Angola	A7	2011	NDR	0.0						No	No			Yes
China	A7	2011	49,142.1	258.7				0%	*	No	No	Country with an approved CTC phase-out plan/project	Nov-02	Yes
Croatia	A7	2011	3.9	0.6				3%	**	No	No	Country with an approved CTC phase-out plan/project	Apr-05	Yes
Nepal	A7	2011	0.9	0.1				0%	**	No	No	Country with an approved CTC phase-out plan/project	Nov-05	Yes
Republic of Korea (the)	A7	2011	638.0	0.4				0%	Over	No	No			Yes

\* For process use exemptions.

\*\* For laboratory and analytical uses.



**Appendix IV**

**TCA ANALYSIS**

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Compliance Decision	2011 Action Plan Target	2012 Action Plan Target	Percentage Over 30% Reduction	Percentage Over 70% Reduction	Percentage Over 100% Reduction	Ongoing Phase-Out (As of March 2013)	Phase-Out in 2013 Business Plans	Remarks	Date Approved	Ratified London Amendment
Angola	A7	2011	NDR	0.0							No	No			Yes
Republic of Korea (the)	A7	2011	513.3	10.0				0%	0%	Over	No	No			Yes



## Appendix V

## HCFC ANALYSIS

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Percentage Over Freeze	Ongoing Phase-Out (As of March 2013)	HPMP Project Preparation Approved	Number of Individual Investment Projects Approved	Number of Demonstration Projects Approved	Activities in 2013 Business Plan	HPMP/ Individual Projects Approved	Date of Approval	HPMPs or Individual Projects Submitted to the 69th Meeting for Consideration	Control Measures Addressed by HPMPs (Approval/ Submission)	Additional Percent of Starting Point/BP Baseline Addressed by Individual Projects (Approval/ Submission)
Afghanistan	A7	2011	23.8	24.0	1%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Albania	A7	2011	6.0	6.5	8%	0.0	Yes			Yes	HPMP	Jul-11		35% by 2020	
Algeria	A7	2011	62.1	67.3	8%	13.5	Yes			No	HPMP	Dec-10		20% by 2017	
Angola	A7	2011	16.0	11.6	0%	0.0	Yes			Yes	HPMP	Nov-11		10% by 2015	
Antigua and Barbuda	A7	2011	0.3	0.4	27%	0.0	Yes			No	HPMP	Apr-12		10% by 2015	
Argentina	A7	2011	400.7	511.6	28%	79.0	Yes			No	HPMP	Jul-10		17.5% by 2017	
Armenia	A7	2011	7.0	7.5	7%	2.2	Yes			Yes	HPMP	Dec-10		10% by 2015	
Bahamas (the)	A7	2011	4.8	3.1	0%	0.0	Yes			Yes	HPMP	Nov-11		35% by 2020	
Bahrain	A7	2011	51.9	57.3	10%	3.7	Yes			No	HPMP	Dec-12		39% by 2020	
Bangladesh	A7	2011	72.6	88.4	22%	20.8	Yes			Yes	HPMP	Nov-11		30% by 2018	
Barbados	A7	2011	3.7	2.7	0%	0.0	Yes			Yes			HPMP	35% by 2020	
Belize	A7	2011	2.8	1.9	0%	0.0	Yes			No	HPMP	Dec-10		35% by 2020	
Benin	A7	2011	23.8	23.8	0%	0.0	Yes			Yes	HPMP	Apr-11		35% by 2020	
Bhutan	A7	2011	0.3	0.3	0%	0.0	Yes			Yes	HPMP	Apr-11		100% by 2025	
Bolivia (Plurinational State of)	A7	2011	6.1	7.5	23%	0.0	Yes			Yes	HPMP	Jul-11		35% by 2020	
Bosnia and Herzegovina	A7	2011	4.7	3.4	0%	5.3	Yes			No	HPMP	Apr-12		35% by 2020	
Botswana	A7	2011	11.0	2.7	0%	0.0	Yes			No					
Brazil	A7	2011	1,327.3	1,046.4	0%	63.5	Yes		2	Yes	HPMP	Jul-11		10% by 2015	
Brunei Darussalam	A7	2011	6.1	8.1	32%	0.6	Yes			No	HPMP	Apr-12		35% by 2020	
Burkina Faso	A7	2011	28.9	27.9	0%	0.0	Yes			Yes	HPMP	Dec-10		35% by 2020	
Burundi	A7	2011	7.2	7.0	0%	0.4	Yes			Yes	HPMP	Nov-11		35% by 2020	



Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Percentage Over Freeze	Ongoing Phase-Out (As of March 2013)	HPMP Project Preparation Approved	Number of Individual Investment Projects Approved	Number of Demonstration Projects Approved	Activities in 2013 Business Plan	HPMP/ Individual Projects Approved	Date of Approval	HPMPs or Individual Projects Submitted to the 69th Meeting for Consideration	Control Measures Addressed by HPMPs (Approval/ Submission)	Additional Percent of Starting Point/BP Baseline Addressed by Individual Projects (Approval/ Submission)
Cambodia	A7	2011	15.0	13.7	0%	0.0	Yes			Yes	HPMP	Jul-10		100% by 2035	
Cameroon	A7	2011	88.8	73.8	0%	22.1	Yes			Yes	HPMP	Jul-11		20% by 2017	
Cape Verde	A7	2011	1.1	0.3	0%	0.0	Yes			Yes	HPMP	Jul-11		35% by 2020	
Central African Republic (the)	A7	2011	12.0	12.0	0%	0.5	Yes			Yes	HPMP	Jul-11		35% by 2020	
Chad	A7	2011	16.1	17.0	6%	0.0	Yes			Yes	HPMP	Dec-10		35% by 2020	
Chile	A7	2011	87.5	109.0	25%	7.6	Yes			Yes	HPMP	Apr-11		10% by 2015	
China	A7	2011	19,269.0	20,739.0	8%	411.1	Yes	1	9	Yes	HPMP	Jul-11		10% by 2015	
Colombia	A7	2011	225.6	217.4	0%	65.2	Yes		1	Yes	HPMP	Dec-10		10% by 2015	
Comoros (the)	A7	2011	0.1	0.1	20%	0.0	Yes			Yes	HPMP	Jul-11		35% by 2020	
Congo (the)	A7	2011	8.9	10.6	19%	0.0	Yes			Yes	HPMP	Apr-11		35% by 2020	
Cook Islands (the)	A7	2011	0.1	0.1	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Costa Rica	A7	2011	14.1	21.8	54%	14.0	Yes			Yes	HPMP	Jul-11		35% by 2020	
Cote d'Ivoire	A7	2011	63.8	59.3	0%	3.3	Yes			No	HPMP	Apr-12		35% by 2020	
Croatia	A7	2011	4.0	4.2	4%	8.1	Yes			Yes	HPMP	Jul-10		100% by 2016	
Cuba	A7	2011	16.9	14.3	0%	15.0	Yes			Yes	HPMP	Nov-11		35% by 2020	
Democratic People's Republic of Korea (the)	A7	2011	78.0	90.0	15%	0.0	Yes			Yes					
Democratic Republic of the Congo (the)	A7	2011	81.2	56.9	0%	0.0	Yes			Yes	HPMP	Apr-11		10% by 2015	
Djibouti	A7	2011	0.7	0.7	0%	0.0	Yes			No	HPMP	Apr-12		35% by 2020	
Dominica	A7	2011	0.4	0.2	0%	0.0	Yes			No	HPMP	Dec-10		35% by 2020	
Dominican Republic (the)	A7	2011	51.2	50.1	0%	12.5	Yes			Yes	HPMP	Nov-11		10% by 2015	
Ecuador	A7	2011	23.5	32.3	37%	15.0	Yes			Yes	HPMP	Nov-11		35% by 2020	
Egypt	A7	2011	386.3	355.6	0%	160.5	Yes	1	1	Yes	HPMP	Nov-11		25% by 2018	
El Salvador	A7	2011	11.7	9.6	0%	6.5	Yes			No	HPMP	Nov-11		35% by 2020	
Equatorial Guinea	A7	2011	6.3	5.7	0%	0.3	Yes			Yes	HPMP	Nov-11		35% by 2020	

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Percentage Over Freeze	Ongoing Phase-Out (As of March 2013)	HPMP Project Preparation Approved	Number of Individual Investment Projects Approved	Number of Demonstration Projects Approved	Activities in 2013 Business Plan	HPMP/ Individual Projects Approved	Date of Approval	HPMPs or Individual Projects Submitted to the 69th Meeting for Consideration	Control Measures Addressed by HPMPs (Approval/ Submission)	Additional Percent of Starting Point/BP Baseline Addressed by Individual Projects (Approval/ Submission)
Eritrea	A7	2011	1.1	1.0	0%	0.0	Yes			No	HPMP	Jul-11		35% by 2020	
Ethiopia	A7	2011	5.5	11.3	105%	0.5	Yes			No	HPMP	Dec-12		35% by 2020	
Fiji	A7	2011	8.5	14.5	70%	0.0	Yes			No	HPMP	Nov-11		35% by 2020	
Gabon	A7	2011	30.2	46.0	52%	0.0	Yes			Yes	HPMP	Dec-10		35% by 2020	
Gambia (the)	A7	2011	1.5	1.0	0%	0.1	Yes			Yes	HPMP	Nov-11		35% by 2020	
Georgia	A7	2011	5.3	4.3	0%	0.7	Yes			No	HPMP	Apr-11		35% by 2020	
Ghana	A7	2011	57.3	30.7	0%	0.0	Yes			No	HPMP	Jul-10		35% by 2020	
Grenada	A7	2011	0.8	0.2	0%	0.0	Yes			No	HPMP	Dec-10		35% by 2020	
Guatemala	A7	2011	8.3	9.9	19%	2.3	Yes			No	HPMP	Jul-11		35% by 2020	
Guinea	A7	2011	22.6	24.5	9%	1.2	Yes			No	HPMP	Apr-12		35% by 2020	
Guinea-Bissau	A7	2011	1.5	2.9	91%	0.1	Yes			Yes	HPMP	Nov-11		35% by 2020	
Guyana	A7	2011	1.8	2.4	34%	0.0	Yes			No	HPMP	Apr-11		10% by 2015	
Haiti	A7	2011	3.6	4.2	17%	0.0	Yes			No	HPMP	Dec-12		35% by 2020	
Honduras	A7	2011	19.9	22.6	13%	0.0	Yes			Yes	HPMP	Apr-11		35% by 2020	
India	A7	2011	1,608.2	1,484.6	0%	145.4	Yes			Yes	HPMP	Apr-12		10% by 2015	
Indonesia	A7	2011	403.9	337.5	0%	71.9	Yes			Yes	HPMP	Jul-11		20% by 2018	
Iran (Islamic Republic of)	A7	2011	380.5	376.9	0%	73.4	Yes			Yes	HPMP	Apr-11		10% by 2015	
Iraq	A7	2011	108.4	110.4	2%	0.0	Yes			Yes	HPMP	Nov-11		13.82% by 2015	
Jamaica	A7	2011	16.3	4.5	0%	3.6	Yes			Yes	HPMP	Jul-11		35% by 2020	
Jordan	A7	2011	83.0	101.3	22%	15.9	Yes			Yes	HPMP	Nov-11		20% by 2017	
Kenya	A7	2011	52.2	48.6	0%	3.1	Yes			No	HPMP	Apr-12		21.1% by 2017	
Kiribati	A7	2011	0.1	0.0	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Kuwait	A7	2011	418.6	397.8	0%	60.7	Yes			Yes	HPMP	Apr-12		39.2% by 2018	
Kyrgyzstan	A7	2011	4.1	3.0	0%	0.0	Yes			Yes	HPMP	Apr-11		10% by 2015	
Lao People's Democratic Republic (the)	A7	2011	2.3	2.7	16%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Percentage Over Freeze	Ongoing Phase-Out (As of March 2013)	HPMP Project Preparation Approved	Number of Individual Investment Projects Approved	Number of Demonstration Projects Approved	Activities in 2013 Business Plan	HPMP/ Individual Projects Approved	Date of Approval	HPMPs or Individual Projects Submitted to the 69th Meeting for Consideration	Control Measures Addressed by HPMPs (Approval/ Submission)	Additional Percent of Starting Point/BP Baseline Addressed by Individual Projects (Approval/ Submission)
Lebanon	A7	2011	73.5	92.3	26%	12.1	Yes			Yes	HPMP	Jul-11		17.5% by 2017	
Lesotho	A7	2011	3.5	2.5	0%	0.0	Yes			No	HPMP	Jul-11		35% by 2020	
Liberia	A7	2011	5.3	5.4	2%	0.6	Yes			No	HPMP	Apr-11		35% by 2020	
Libya	A7	2011	114.7	131.9	15%	0.0	Yes			Yes					
Madagascar	A7	2011	24.9	16.5	0%	0.0	Yes			Yes	HPMP	Dec-10		35% by 2020	
Malawi	A7	2011	10.8	12.7	18%	0.0	Yes			Yes	HPMP	Dec-10		35% by 2020	
Malaysia	A7	2011	515.8	482.3	0%	53.7	Yes			Yes	HPMP	Nov-11		15% by 2016	
Maldives	A7	2011	4.6	3.7	0%	0.0	Yes			Yes	HPMP	Apr-10		100% by 2020	
Mali	CP	2012	15.0	17.6	17%	0.0	Yes			Yes	HPMP	Apr-11		35% by 2020	
Marshall Islands (the)	A7	2011	0.2	0.2	20%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Mauritania	A7	2011	20.5	20.5	0%	0.0	Yes			Yes					
Mauritius	A7	2011	8.0	8.8	10%	0.0	Yes			No	HPMP	Apr-11		100% by 2030	
Mexico	A7	2011	1,148.8	1,083.4	0%	274.9	Yes		1	Yes	HPMP	Jul-11		30% by 2018	
Micronesia (Federated States of)	A7	2011	0.2	0.1	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Mongolia	A7	2011	1.4	1.2	0%	0.5	Yes			Yes	HPMP	Apr-11		35% by 2020	
Montenegro	A7	2011	0.8	0.7	0%	0.0	Yes			Yes	HPMP	Apr-11		35% by 2020	
Morocco	A7	2011	59.7	78.8	32%	11.0	Yes			No	HPMP	Nov-11		20% by 2017	
Mozambique	A7	2011	6.5	8.4	29%	0.3	Yes			No	HPMP	Apr-12		35% by 2020	
Myanmar	A7	2011	4.3	5.8	34%	0.4	Yes			No	HPMP	Dec-12		35% by 2020	
Namibia	A7	2011	8.4	10.0	18%	0.9	Yes			Yes	HPMP	Apr-11		100% by 2025	
Nauru	A7	2011	0.0	0.0	Over	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Nepal	A7	2011	1.1	1.1	0%	0.3	Yes			No	HPMP	Apr-12		35% by 2020	
Nicaragua	A7	2011	6.8	5.4	0%	0.7	Yes			No	HPMP	Apr-12		35% by 2020	
Niger (the)	A7	2011	16.0	15.9	0%	2.7	Yes			No	HPMP	Apr-12		35% by 2020	
Nigeria	A7	2011	398.2	461.8	16%	0.0	Yes			Yes	HPMP	Dec-10		10% by 2015	

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Percentage Over Freeze	Ongoing Phase-Out (As of March 2013)	HPMP Project Preparation Approved	Number of Individual Investment Projects Approved	Number of Demonstration Projects Approved	Activities in 2013 Business Plan	HPMP/ Individual Projects Approved	Date of Approval	HPMPs or Individual Projects Submitted to the 69th Meeting for Consideration	Control Measures Addressed by HPMPs (Approval/ Submission)	Additional Percent of Starting Point/BP Baseline Addressed by Individual Projects (Approval/ Submission)
Niue	A7	2011	0.0	0.0	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Oman	A7	2011	31.5	34.8	11%	5.2	Yes			Yes	HPMP	Nov-11		10% by 2015	
Pakistan	A7	2011	247.4	276.1	12%	71.6	Yes			Yes	HPMP	Dec-10		10% by 2015	
Palau	A7	2011	0.2	0.2	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Panama	A7	2011	24.8	23.8	0%	0.0	Yes			Yes	HPMP	Nov-11		10% by 2015	
Papua New Guinea	A7	2011	3.3	1.7	0%	0.2	Yes			Yes	HPMP	Apr-11		100% by 2025	
Paraguay	A7	2011	18.0	16.8	0%	1.8	Yes			No	HPMP	Apr-11		35% by 2020	
Peru	A7	2011	26.9	32.5	21%	0.0	Yes			Yes	HPMP	Dec-12		10% by 2015	
Philippines (the)	A7	2011	208.4	164.9	0%	40.0	Yes			No	HPMP	Dec-12		10% by 2015	
Qatar	A7	2011	86.9	96.6	11%	22.0	Yes			Yes	HPMP	Nov-11		20% by 2015	
Republic of Korea (the)	A7	2011	1,908.0	2,108.9	11%	0.0	No			No					
Republic of Moldova (the)	A7	2011	1.0	1.3	31%	0.0	Yes			Yes	HPMP	Apr-11		10% by 2015	
Rwanda	A7	2011	4.1	5.5	34%	0.2	Yes			Yes	HPMP	Jul-11		35% by 2020	
Saint Kitts and Nevis	A7	2011	0.5	0.5	0%	0.2	Yes			No	HPMP	Jul-11		35% by 2020	
Saint Lucia	A7	2011	0.2	1.1	435%	0.1	Yes			No	HPMP	Jul-11		35% by 2020	
Saint Vincent and the Grenadines	A7	2012	0.3	0.3	0%	0.2	Yes			No	HPMP	Jul-11		100% by 2025	
Samoa	A7	2011	0.3	0.3	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Sao Tome and Principe	A7	2011	2.2	0.1	0%	0.0	Yes			Yes	HPMP	Apr-11		35% by 2020	
Saudi Arabia	A7	2011	1,468.7	1,750.8	19%	107.1	Yes			Yes	HPMP	Dec-12		40% by 2020	
Senegal	A7	2011	36.2	36.1	0%	3.6	Yes			No	HPMP	Nov-11		35% by 2020	
Serbia	A7	2011	8.4	12.5	49%	2.3	Yes			Yes	HPMP	Dec-10		35% by 2020	
Seychelles	A7	2011	1.4	0.9	0%	0.4	Yes			Yes	HPMP	Apr-11		100% by 2025	
Sierra Leone	A7	2011	1.7	1.9	10%	0.1	Yes			Yes	HPMP	Nov-11		35% by 2020	
Singapore	A7	2011	216.1	110.8	0%	0.0	No			No					
Solomon Islands	A7	2011	2.0	2.0	2%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Percentage Over Freeze	Ongoing Phase-Out (As of March 2013)	HPMP Project Preparation Approved	Number of Individual Investment Projects Approved	Number of Demonstration Projects Approved	Activities in 2013 Business Plan	HPMP/ Individual Projects Approved	Date of Approval	HPMPs or Individual Projects Submitted to the 69th Meeting for Consideration	Control Measures Addressed by HPMPs (Approval/ Submission)	Additional Percent of Starting Point/BP Baseline Addressed by Individual Projects (Approval/ Submission)
Somalia	A7	2011	45.1	45.2	0%	0.5	Yes			No	HPMP	Jul-11		35% by 2020	
South Africa	A7	2011	369.7	379.3	3%	24.9	Yes			Yes	HPMP	Jul-11		35% by 2020	
South Sudan	NDR	NDR	NDR	NDR			No			Yes					
Sri Lanka	A7	2011	13.9	16.3	17%	0.5	Yes			Yes	HPMP	Dec-10		35% by 2020	
Sudan (the)	A7	2011	52.7	55.0	4%	11.9	Yes			No	HPMP	Dec-10		30% by 2017	
Suriname	A7	2011	2.0	4.0	101%	0.1	Yes			Yes	HPMP	Nov-11		35% by 2020	
Swaziland	A7	2011	7.3	3.1	0%	7.7	Yes			Yes	HPMP	Apr-11		35% by 2020	
Syrian Arab Republic	A7	2011	135.0	176.6	31%	12.9	Yes	1		Yes	Individual	Dec-10			10%
Thailand	A7	2011	927.6	811.3	0%	50.3	Yes			Yes	HPMP	Dec-12		15% by 2018	
The Former Yugoslav Republic of Macedonia	A7	2011	1.8	0.9	0%	1.6	Yes			Yes	HPMP	Apr-10		35% by 2020	
Timor-Leste	A7	2011	0.5	0.2	0%	0.0	Yes			Yes	HPMP	Apr-11		10% by 2015	
Togo	A7	2011	20.0	19.1	0%	0.0	Yes			Yes	HPMP	Dec-10		35% by 2020	
Tonga	A7	2011	0.1	0.1	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Trinidad and Tobago	A7	2011	46.0	34.2	0%	2.5	Yes			Yes	HPMP	Jul-11		35% by 2020	
Tunisia	A7	2011	40.7	33.9	0%	0.0	Yes			Yes					
Turkey	A7	2011	551.5	427.7	0%	160.5	Yes		1	No	HPMP	Dec-12		86.4% by 2017	
Turkmenistan	A7	2011	6.8	5.8	0%	0.0	Yes			Yes	HPMP	Dec-10		35% by 2020	
Tuvalu	A7	2011	0.1	0.0	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	
Uganda	A7	2011	0.2	0.1	0%	0.0	Yes			No	HPMP	Dec-12		35% by 2020	
United Arab Emirates (the)	A7	2011	557.1	641.8	15%	0.0	No			No					
United Republic of Tanzania (the)	A7	2011	1.7	10.0	486%	0.2	Yes			No	HPMP	Jul-11		35% by 2020	
Uruguay	A7	2011	23.4	17.6	0%	0.0	Yes			Yes	HPMP	Nov-11		10% by 2015	
Vanuatu	A7	2011	0.3	0.1	0%	0.0	Yes			No	HPMP	Apr-11		35% by 2020	

Country	Source	Year of Latest Consumption	Baseline	Latest Consumption	Percentage Over Freeze	Ongoing Phase-Out (As of March 2013)	HPMP Project Preparation Approved	Number of Individual Investment Projects Approved	Number of Demonstration Projects Approved	Activities in 2013 Business Plan	HPMP/ Individual Projects Approved	Date of Approval	HPMPs or Individual Projects Submitted to the 69th Meeting for Consideration	Control Measures Addressed by HPMPs (Approval/ Submission)	Additional Percent of Starting Point/BP Baseline Addressed by Individual Projects (Approval/ Submission)
Venezuela (Bolivarian Republic of)	A7	2011	207.0	165.1	0%	0.0	Yes			Yes	HPMP	Apr-11		10% by 2015	
Viet Nam	A7	2011	221.2	223.3	1%	44.7	Yes			Yes	HPMP	Apr-11		10% by 2015	
Yemen	A7	2011	158.2	71.9	0%	11.6	Yes			No	HPMP	Dec-12		15% by 2015	
Zambia	A7	2011	5.0	9.2	85%	0.4	Yes			Yes	HPMP	Jul-11		35% by 2020	
Zimbabwe	A7	2011	17.8	19.8	11%	6.1	Yes			Yes	HPMP	Nov-11		35% by 2020	



## Annex II

## INFORMATION ON COUNTRIES SUBJECT TO DECISIONS OF THE PARTIES ON COMPLIANCE

Party	Agency	Decisions	Compliance issue	Actions	Implementing Agency Comments for the 69th meeting	MLF assessment based on agencies preliminary comments, A7 data and information from Ozone Secretariat
Gambia (the)	UNEP	XXIV/17	Licensing system	To ensure that that system is structured in accordance with Article 4 B of the Protocol and that it provides for the licensing of exports and to report thereon to the Secretariat	The Gambia's revised ODS Regulations is structured in accordance with Article 4 B of the Protocol and it provides for the licensing of exports. CAP has advised the Gambia to inform the Ozone Secretariat on the current status of the revised ODS Regulations. High level discussions which will involve Ozone Secretariat and UNEP are planned during the upcoming Network Meeting as the Gambia is hosting the meeting	Not achieved as per Ozone Secretariat / IA
Mali	UNEP	XXIV/13	Data reporting issues	To report the 2011 data to the Secretariat as a matter of urgency	Mali submitted 2011 data to the Ozone Secretariat on 8 December 2012	Achieved as per A7
Sao Tome and Principe	UNEP	XXIV/13	Data reporting issues	To report the 2011 data to the Secretariat as a matter of urgency	The country submitted 2011 data to the Ozone Secretariat on 1 February 2013	Achieved as per IA





## Annex III

## COMPLETED PROJECTS

Agency	Code	Project Title
Czech Republic (the)	EUR/SEV/57/TAS/07	Initiating regional cooperation to enforce ODS trade controls in Europe and Central Asia network countries (first tranche)
Czech Republic (the)	EUR/SEV/60/TAS/10	Initiating regional cooperation to enforce ODS trade controls in Europe and Central Asia network countries (second tranche)
Italy	IND/ARS/56/INV/424	Plan for phase-out of CFCs in the manufacture of pharmaceutical MDIs
Japan	GLO/SEV/59/TRA/297	Training on alternative technologies to HCFCs
UNDP	AFR/FUM/38/TAS/32	Technical assistance for methyl bromide reductions and formulation of regional phase-out strategies for low-volume consuming countries
UNDP	CHI/REF/48/INV/160	Terminal umbrella project for phase-out of the use of CFC-11, CFC-12 and R-502 (CFC-115) in the manufacture of refrigeration equipment
UNDP	COL/PAG/48/INV/66	Phase-out of CTC as process agent in the elimination of nitrogen trichloride during chlorine production at Prodesal S.A.
UNEP	EUR/SEV/57/TAS/08	Initiating regional cooperation to enforce ODS trade controls in Europe and Central Asia network countries (first tranche)
UNEP	EUR/SEV/60/TAS/09	Initiating regional cooperation to enforce ODS trade controls in Europe and Central Asia network countries (second tranche)
UNEP	GLO/REF/48/TAS/275	Global technical assistance programme in the chiller sector
UNIDO	ALG/REF/44/INV/62	Conversion of CFC-11 to HCFC-141b and CFC-12 to HFC-134a technology in the last group of commercial refrigerator manufactures (refrigeration sector terminal project)



**Annex IV**

**PROJECTS THAT ARE CLASSIFIED AS “PROGRESS”**

<b>Agency</b>	<b>Code</b>	<b>Project Title</b>
UNEP	KUW/PHA/57/TAS/15	TPMP verification



## Annex V

## PROJECTS THAT ARE CLASSIFIED AS “SOME PROGRESS” THAT ARE RECOMMENDED FOR CONTINUED MONITORING

Agency	Code	Project Title
UNIDO	ARG/SOL/41/INV/137	Plan for phase-out of ODS in the solvent sector
UNDP	BGD/ARS/52/INV/26	Phase-out of CFC consumption in the manufacture of aerosol MDIs (Beximco, Square Pharmaceutical and Acme Pharmaceutical)
IBRD	CPR/ARS/51/INV/447	Phase-out of CFC consumption in the pharmaceutical aerosol sector (2007-2008 biennial programme)
UNIDO	EGY/ARS/50/INV/92	Phase-out of CFC consumption in the manufacture of aerosol metered dose inhalers (MDIs)
UNIDO	IRQ/FOA/57/INV/06	Conversion from CFC-11 to methylene chloride in the production of flexible slabstock foam at Al Hadi Co.
UNIDO	IRQ/REF/57/INV/07	Replacement of refrigerant CFC-12 with isobutane and foam blowing agent CFC-11 with cyclopentane in the manufacture of domestic refrigerators and chest freezers at Light Industries Company
UNIDO	IVC/REF/57/INV/32	ODS phase out in 50 existing centrifugal chillers units
Spain	LAC/FUM/54/TAS/40	Technical assistance to introduce chemical alternatives in countries which have rescheduled methyl bromide phase out plan (Argentina and Uruguay)
UNIDO	MOZ/FUM/60/TAS/20	Technical assistance for the elimination of controlled uses of methyl bromide in soil fumigation
UNDP	PAK/ARS/56/INV/71	Plan for phase-out of CFCs in the manufacture of pharmaceutical MDIs
UNIDO	SYR/FUM/49/TAS/95	Methyl bromide national phase-out plan (soil fumigation)



Annex VI

PROJECTS FOR WHICH ADDITIONAL STATUS REPORTS WERE REQUESTED

Agency	Code	Project Title	Reasons
France	AFR/REF/48/DEM/36	Strategic demonstration project for accelerated conversion of CFC chillers in 5 African Countries (Cameroon, Egypt, Namibia, Nigeria and Sudan)	To request the submission of additional status reports to the 70 <sup>th</sup> meeting to monitor the resolution of the financial mechanism and co-financing issues for Nigeria, Senegal and the Sudan by the 70 <sup>th</sup> meeting as a milestone for achievement in order to avoid consideration of possible cancellation in those countries.
France	AFR/SEV/53/TAS/39	African customs enforcement networks for preventing illegal trade of ODS in the African sub-regional trade organizations (CEMAC, COMESA, SACU and UEMOA)	To request the submission of additional status reports to the 70 <sup>th</sup> meeting to monitor the initiation of the action plan in order to avoid consideration of possible cancellation of the project.
IBRD	ARG/FUM/29/DEM/93	Demonstration project for testing methyl bromide alternatives in post-harvest disinfestation for cotton and citrus (phase I)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting in order to monitor the preparation of the report.
IBRD	IDS/DES/57/PRP/187	Preparation for pilot demonstration project on ODS waste management and disposal	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting on the status of completion of the report on ODS destruction and ODS disposal preparatory activities.
IBRD	PHI/DES/57/PRP/85	Preparation for pilot demonstration project on ODS waste management and disposal	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting on the status of completion of the report on ODS destruction and ODS disposal preparatory activities.
Japan	AFR/REF/48/DEM/35	Strategic demonstration project for accelerated conversion of CFC chillers in 5 African Countries (Cameroon, Egypt, Namibia, Nigeria and Sudan)	To request the submission of additional status reports to the 70 <sup>th</sup> meeting to monitor the resolution of the financial mechanism and co-financing issues for Sudan by the 70 <sup>th</sup> meeting as a milestone for achievement in order to avoid consideration of possible cancellation in those countries.
Japan	ASP/DES/54/PRP/53	Project preparation for a demonstration project on ODS disposal	To request the submission of additional status reports to the 70 <sup>th</sup> meeting to monitor the preparation of a demonstration project on ODS disposal in the Asia and Pacific Region, if the request for funding is not submitted to the 70 <sup>th</sup> meeting.
Japan	COL/FOA/60/DEM/75	Demonstration project to validate the use of super-critical CO <sub>2</sub> in the manufacture of sprayed polyurethane rigid foam	To request the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the completion of this project if it had not been completed by the 70 <sup>th</sup> meeting.
UNDP	BHU/PHA/63/INV/17	HCFC phase-out management plan (first tranche)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor: (a) progress in implementing the HPMP, which had been approved over one year previously and for which no disbursement had been recorded; (b) delays in signing project documents/letters of agreement.



Agency	Code	Project Title	Reasons
UNDP	BRA/REF/47/DEM/275	Demonstration project for integrated management of the centrifugal chiller sub-sector, focusing on application of energy-efficient CFC-free technologies for replacement of CFC-based chillers	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor projects due to low rates of disbursement of approved funds.
UNDP	CUB/DES/62/DEM/46	Pilot demonstration project on ODS waste management and disposal	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor projects due to low rates of disbursement of approved funds.
UNDP	DOM/HAL/51/TAS/39	National halon bank management plan update	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor projects due to low rates of disbursement of approved funds.
UNDP	IND/DES/61/PRP/437	Preparation of a project for demonstration of a sustainable technological, financial and management model for disposal of ODS	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor projects due to low rates of disbursement of approved funds.
UNDP	IRA/PHA/63/INV/204	HCFC phase-out management plan (stage I, first tranche) (foam sector plan: one foam systems house)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor progress in implementing the HPMP, which had been approved over one year previously.
UNDP	STK/PHA/56/INV/13	Terminal CFC phase-out management plan (second and third tranches)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting on project progress.
UNEP	ALG/SEV/57/INS/69	Extension of the institutional strengthening project (phase V)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the signature of the new agreement for the IS project and implementation progress.
UNEP	ECU/PHA/61/TAS/48	National CFC phase-out plan (third tranche)	To request the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the project progress and the disbursement rates of approved funds.
UNEP	ECU/PHA/61/TAS/50	National CFC phase-out plan (fourth tranche)	To request the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the project progress and the disbursement rates of approved funds.
UNEP	ECU/PHA/61/TAS/52	National CFC phase-out plan (fifth tranche)	To request the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the project progress and the disbursement rates of approved funds.
UNEP	GAB/PHA/62/TAS/26	HCFC phase-out management plan (stage I, first tranche)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor HPMP implementation progress.
UNEP	GUA/FUM/59/TAS/39	National phase-out of methyl bromide (phase II, first tranche)	To request the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the project progress and the disbursement rates of approved funds.
UNEP	HAI/SEV/59/INS/16	Extension of the institutional strengthening project (phase III)	To request the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the Implementation of the revised plan of activities for the IS project.
UNEP	MAU/PHA/55/PRP/20	Preparation of a HCFC phase-out management plan	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor HPMP project preparation activity, if the project was not submitted to the 70 <sup>th</sup> meeting.

Agency	Code	Project Title	Reasons
UNEP	MAU/SEV/49/INS/17	Renewal of institutional strengthening project (phase IV)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting in order to monitor this institutional strengthening project implementation
UNEP	MOR/SEV/59/INS/63	Renewal of the institutional strengthening project (phase IV)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting on project document signature for institutional strengthening.
UNIDO	CPR/REF/53/INV/453	Refrigeration servicing sector CFC phase-out plan (fourth tranche)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the delivery and distribution of equipment.
UNIDO	CPR/REF/59/INV/490	Refrigeration servicing sector CFC phase-out plan (sixth tranche)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the delivery and distribution of equipment.
UNIDO	ERI/PHA/63/INV/09	Terminal phase-out management plan for CFCs (second tranche)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the delivery and distribution of equipment.
UNIDO	ETH/FUM/54/PRP/18	Project preparation in the fumigant sector (flowers)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting in order to monitor the project preparation in case the project is not submitted to the 70 <sup>th</sup> meeting.
UNIDO	LIB/FOA/63/PRP/33	Preparation for HCFC phase-out investment activities (polyurethane foam component)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project document preparation, if not submitted to the 70 <sup>th</sup> meeting.
UNIDO	LIB/PHA/45/INV/25	National ODS phase-out plan: 2nd tranche	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project with issues related to delays in the implementation of the TPMP due to the political and/or security situation in this country.
UNIDO	LIB/PHA/54/INV/28	National ODS phase-out plan: 3rd tranche	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project with issues related to delays in the implementation of the TPMP due to the political and/or security situation in this country.
UNIDO	LIB/PHA/55/PRP/29	Preparation of a HCFC phase-out management plan	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project preparation of projects, if not submitted to the 70 <sup>th</sup> meeting.
UNIDO	LIB/PHA/63/PRP/32	Preparation of a HCFC phase-out management plan (additional funding)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project preparation of projects, if not submitted to the 70 <sup>th</sup> meeting.

Agency	Code	Project Title	Reasons
UNIDO	MEX/ARS/63/INV/156	Phase-out of HCFC-22 and HCFC-141b in aerosol manufacturing at Silimex	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor procurement of the equipment for the project.
UNIDO	MEX/MUS/58/PRP/146	Preparation for HCFC phase-out investment activities (aerosol and solvent sectors)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project preparation of projects, if not submitted to the 70 <sup>th</sup> meeting.
UNIDO	MOZ/FUM/60/TAS/20	Technical assistance for the elimination of controlled uses of methyl bromide in soil fumigation	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the disbursement rates of approved funds.
UNIDO	QAT/SEV/59/INS/15	Renewal of institutional strengthening project (phase III)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting: (a) on project document signature for institutional strengthening; (b) to monitor progress of the institutional strengthening project.
UNIDO	SAU/FOA/62/INV/11	Phase-out of HCFC-22 and HCFC-142b from the manufacture of extruded polystyrene panel at Line #2 in Arabian Chemical Company	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the project progress and the disbursement rates of approved funds.
UNIDO	SAU/FOA/62/INV/13	Phase-out of HCFC-22 and HCFC-142b from the manufacture of extruded polystyrene panel at Al-Watania Plastics	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the project progress and the disbursement rates of approved funds.
UNIDO	SYR/PHA/58/INV/99	National CFC phase-out plan (third tranche)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project with issues related to delays in the implementation of the TPMP due to the political and/or security situation in this country.
UNIDO	SYR/REF/62/INV/103	Phase-out of HCFC-22 and HCFC-141b from the manufacture of unitary air-conditioning equipment and rigid polyurethane insulation panels at Al Hafez Group	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting on project progress.
UNIDO	TUN/FOA/58/PRP/50	Preparation for HCFC phase-out investment activities (polyurethane foam sector)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project document preparation, if not submitted to the 70 <sup>th</sup> meeting.
UNIDO	TUN/PHA/55/PRP/48	Preparation of a HCFC phase-out management plan	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project preparation of projects, if not submitted to the 70 <sup>th</sup> meeting.
UNIDO	URU/REF/60/PRP/55	Preparation for HCFC phase-out investment activities (refrigeration manufacturing sector)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project document preparation, if not submitted to the 70 <sup>th</sup> meeting.

Agency	Code	Project Title	Reasons
UNIDO	YEM/PHA/55/INV/28	National ODS phase-out plan (first tranche)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor project with issues related to delays in the implementation of the TPMP due to the political and/or security situation in this country.
UNIDO	YUG/PHA/51/INV/31	National CFC phase-out plan (third tranche, transferred from Sweden)	To request, for the third consecutive meeting, the submission of additional status report to the 70 <sup>th</sup> meeting to monitor the disbursement rates of approved funds.



**Annex VII**

**PROJECTS FOR WHICH ADDITIONAL STATUS REPORTS WERE REQUESTED FOR HPMP DEVELOPMENT**

<b>Agency</b>	<b>Project Number</b>	<b>Project Title</b>	<b>Reasons</b>
UNEP	MAU/PHA/55/PRP/20	Preparation of a HCFC phase-out management plan	To request the submission of additional status report to the 70 <sup>th</sup> meeting in order to monitor the submission of the HPMP if HPMP not submitted to the 70 <sup>th</sup> meeting



Annex VIII

PROJECTS WITH SPECIFIC REPORTING REQUIREMENTS

Code	Agency	Project Title	Reasons
ALG/FOA/62/INV/75	UNIDO	Phase-out of HCFC-141b at Cristor (domestic refrigeration foam)	No additional status report
ARG/REF/61/INV/164	UNIDO	Phase-out of HCFC-22 in the RAC manufacturing sector	To request additional status report to the 70 <sup>th</sup> meeting on ways forward to fund shortfall and a revised implementation schedule.
BGD/FOA/62/INV/38	UNDP	Phase-out of HCFC-141b at Walton Hi-Tech Ind. Ltd.	To request the submission of the final report on estimated and actual ICC and IOC, including information on the necessary co-financing expected from the enterprise in line with decision 55/43(b) by the 70 <sup>th</sup> meeting.
COL/FOA/60/INV/76	UNDP	Phase-out of HCFCs to hydrocarbons at Mabe Colombia, Industrias Haceb, Challenger and Indusel S.A.	No additional status report
CPR/REF/60/DEM/498	UNDP	Phase-out of HCFC-22 in the commercial air-source chillers/heat pumps at Tsinghua Tong Fang Co.	To request a detailed report to be submitted with next request for a tranche of the ICR sector plan in China
CPR/REF/60/DEM/499	UNDP	Phase-out of HCFC-22 in the manufacture of two stage refrigeration systems at Yantai Moon Group Co. Ltd.	To request a detailed report to be included with next request for a tranche of the ICR sector plan in China
CPR/REF/61/DEM/502	UNIDO	Phase-out of HCFC-22 in the manufacturing of RACs at Midea and conversion of RAC compressors at Meizhi	To request a detailed report or, if not possible, an update to the 71 <sup>st</sup> meeting
CPR/REF/61/DEM/503	UNIDO	Phase-out of HCFC-22 in the manufacturing of RACs at Midea and conversion of RAC compressors at Meizhi	To request a detailed report or, if not possible, an update to the 71 <sup>st</sup> meeting
CUB/DES/62/DEM/46	UNDP	Pilot demonstration project on ODS waste management and disposal	To request a status report to the 72 <sup>nd</sup> meeting, providing information on amounts destroyed as at December 2013, and other progress of project implementation.
Ecuador	UNEP	NPP verification reports for 2009 and 2010	No additional status report
EGY/FOA/62/INV/104	UNIDO	Phase-out of HCFC-141b from manufacturing of polyurethane foam at Mondial Freezers Company	To request the submission of the final report on estimated and actual ICC and IOC, including information on the necessary co-financing expected from the enterprise in line with decision 55/43(b) by the 70 <sup>th</sup> meeting.
EGY/FOA/62/INV/105	UNDP	Conversion from HCFC-141b to n-pentane in the manufacture of polyurethane rigid insulation foam panels at MOG for Engineering and Industry	To request the submission of the final report on estimated and actual ICC and IOC, including information on the necessary co-financing expected from the enterprise in line with decision 55/43(b) by the 70 <sup>th</sup> meeting.



Code	Agency	Project Title	Reasons
EGY/FOA/62/INV/106	UNDP	Conversion from HCFC-141b to methyl formate in the manufacture of polyurethane rigid insulation foam for water heaters at Fresh Electric for Home Appliances	To request a progress report on the status of the re-bidding process, including a preliminary analysis on estimated and actual (based on the selected bid) ICC and IOC by the 70 <sup>th</sup> meeting
EGY/FOA/62/INV/107	UNDP	Conversion from HCFC-141b to methyl formate in the manufacture of polyurethane spray foams at Specialized Engineering Contracting Co.	To request the submission of the final report on estimated and actual ICC and IOC, including information on the necessary co-financing expected from the enterprise in line with decision 55/43(b) by the 70 <sup>th</sup> meeting.
EGY/FOA/62/INV/108	UNDP	Conversion from HCFC-141b to n-pentane in the manufacture of polyurethane rigid insulation foam panels at Cairo Foam	To request the submission of the final report on estimated and actual ICC and IOC, including information on the necessary co-financing expected from the enterprise in line with decision 55/43(b) by the 70 <sup>th</sup> meeting (note: the information could be provided by UNDP technical implementation team).
EGY/FOA/62/INV/110	UNIDO	Phase-out of HCFC-141b from manufacturing of polyurethane foam at El-Araby Co. for Engineering Industries	To request the submission of the final report on estimated and actual ICC and IOC, including information on the necessary co-financing expected from the enterprise in line with decision 55/43(b) by the 70 <sup>th</sup> meeting.
GHA/DES/63/DEM/33	UNDP	Pilot demonstration project on ODS waste management and disposal	To request a status report to the 72 <sup>nd</sup> meeting, specifically to report on the implementation of the GEF component, and further details on amounts destroyed, etc.
JOR/REF/60/INV/86	UNIDO	Phase-out of HCFC-22 and HCFC-141b at Petra Co.	To request additional status report or, if not possible, an update to the 71 <sup>st</sup> meeting
KYR/PHA/55/TAS/19	UNEP	TPMP verification	No additional status report
MEX/FOA/59/INV/148	UNDP	Phase-out HCFC-141b at Mabe Mexico	No additional status report
MOR/FOA/62/INV/67	UNIDO	Phase-out of HCFC-141b at Manar (domestic refrigeration foam)	To request additional status report on ICC for awarded contract to the 71 <sup>st</sup> meeting if not submitted by then
PAK/FOA/60/INV/77	UNIDO	Phase-out of HCFC-141b in the manufacture of PU foams at United Refrigeration, HNR, Varioline Intercool, Shadman Electronics and Dawlance	No additional status report
PHI/FOA/62/INV/90	UNIDO	Sector plan for the phase-out of HCFC-141b in the foam sector	To request additional report on individual HCFC demonstration and investment projects approval clause to report on ICC, IOC and technology application in line with decision 55/43(b) for submission to the 69 <sup>th</sup> meeting including a table with the estimated and actual costs of the major pieces of equipment for each of the 10 enterprises

Code	Agency	Project Title	Reasons
PHI/FOA/62/INV/91	Japan	Sector plan for the phase-out of HCFC-141b in the foam sector	To request additional report on individual HCFC demonstration and investment projects approval clause to report on ICC, IOC and technology application in line with decision 55/43(b) for submission to the 70 <sup>th</sup> meeting based on the anticipated completion date of the project.
SAU/FOA/62/INV/11	UNIDO	Phase-out of HCFC-22 and HCFC-142b in the manufacturing of XPS foams at Arabian Chemical Company	No additional status report
SAU/FOA/62/INV/12	Japan	Phase-out of HCFC-22 and HCFC-142b in the manufacturing of XPS foams at Al Watania Plastics and Arabian Chemical Company	To request additional report on individual HCFC demonstration and investment projects approval clause to report on ICC, IOC and technology application in line with decision 55/43(b) for submission to the 69 <sup>th</sup> meeting based on the anticipated completion date of the project.
SAU/FOA/62/INV/13	UNIDO	Phase-out of HCFC-22 and HCFC-142b in the manufacturing of XPS foams at Al Watania Plastics	No additional status report
SAU/FOA/62/INV/14	Japan	Phase-out of HCFC-22 and HCFC-142b in the manufacturing of XPS foams at Al Watania Plastics and Arabian Chemical Company	To request additional report on individual HCFC demonstration and investment projects approval clause to report on ICC, IOC and technology application in line with decision 55/43(b) for submission to the 69 <sup>th</sup> meeting based on the anticipated completion date of the project.
SUD/FOA/62/INV/28	UNIDO	Phase-out of HCFC-141b in the manufacture of PU foams at Modern, Amin, Coldair and Akabadi	No additional status report
SYR/REF/62/INV/103	UNIDO	Phase-out of HCFC-22 and HCFC-141b at Al Hafez Co.	To request detailed report or, if possible, a full report to the 73 <sup>rd</sup> meeting
TUR/FOA/62/INV/97	UNIDO	Phase-out of HCFC-141b in the PU foam sector and phase-out of HCFC-22 and HCFC-142b in the XPS foam sector	To request the submission of the final report on estimated and actual ICC and IOC, including information on the necessary co-financing expected from the enterprises in line with decision 55/43(b) by the 71 <sup>st</sup> meeting.
Saudi Arabia	UNIDO	Verification report on CFCs, CTC, TCA and halons for the years 2009 and 2010, and the full implementation report on the national ODS phase-out plan	To request a status report to the 70 <sup>th</sup> meeting on the preparation of the 2009/2010 verification report for CFCs, CTC, TCA and halons, and the implementation report on the national ODS phase-out plan, if not submitted by then
Zambia	UNEP	TPMP Verification Report	No additional status report

Code	Agency	Project Title	Reasons
<b>Detailed specific status reports</b>			
BRA/PHA/50/INV/278	UNDP	National CFC phase-out plan	To request additional report to the 71 <sup>st</sup> meeting if no PCR has been received by then
BRA/PHA/53/INV/280	UNDP	National CFC phase-out plan	To request an additional report to the 71 <sup>st</sup> meeting if no PCR has been received by then
BRA/PHA/56/INV/284	UNDP	National CFC phase-out plan	To request additional report to the 71 <sup>st</sup> meeting if no PCR has been received by then
BRA/PHA/59/INV/293	UNDP	National CFC phase-out plan	To request additional report to the 71 <sup>st</sup> meeting if no PCR has been received by then
COL/FOA/60/DEM/75	Japan	Pilot Supercritical CO <sub>2</sub> in spray foam	To request the Government of Japan to submit the final report of the demonstration project taking into consideration the additional information requested in document UNEP/OzL.Pro/ExCom/69/5 to the 70 <sup>th</sup> meeting
Democratic People's Republic of Korea	UNIDO	CTC phase-out plan	Not applicable (additional specific status report to be decided by Excom)
Haiti project implementation	UNEP	Actions taken for projects to improve training components and funds transfer and to provide sufficient technical advice for technology decision making	To request UNEP to provide an update on (a) the production and submission of financial and activity report and (b) the signature of the new IS agreement for Haiti that will enable the release of funds balance.
Reports on resource mobilization activities	UNEP	To provide Secretariat recommendations to the 69 <sup>th</sup> meeting on criteria identified in the final reports that could facilitate consideration of whether to engage in a short-term pilot scheme for mobilization of financing for non-eligible projects	Not applicable

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**INTERIM REPORT FROM UNEP ON  
PROJECT ON RESOURCE MOBILIZATION TO ADDRESS CLIMATE CO-BENEFITS FOR HCFC  
PHASE-OUT IN LVC COUNTRIES WITH SERVICING SECTOR ONLY**

18 February 2013

1. This report is in response to Decision 63/22 (a), which approved funding at the level of US\$ 100,000, plus agency support costs of US\$ 13,000 for UNEP, for a study on financing options, regional workshops on co-financing, and/or one or more pilot applications of co-financing for one or more low-volume-consuming countries with an approved HCFC phase-out management plan, to be funded as resource mobilization activities.
2. That decision requested UNEP to provide a final report for consideration by the Executive Committee at its 69th meeting. It also requested UNEP to ensure that the regional workshops were held in the context of the network meetings under UNEP's CAP so as to ensure cost-effectiveness, and that the timing of the workshops *would be such to allow the experiences of other agencies' resource mobilization activities to be incorporated.*
3. Given that the other agencies' resource mobilization projects were recently concluded, and that the agencies will provide their final reports to the 69<sup>th</sup> Executive Committee meeting, UNEP proposes to use the Main Meetings of the Regional Networks in 2013 to facilitate the sharing of the agencies' experiences with National Ozone Units. Accordingly, the present report should be considered an interim and not a final report from UNEP on its resource mobilization project.

Study on financing options

2. To date, UNEP has made the following progress with relation to the study component of the project:
  - US\$ 20,000 of the project funds have been programmed for the study component.
  - A Terms of Reference for the study has been prepared.
  - A consultant with appropriate international experience related to multilateral environmental agreements, LVCs and resource mobilization has been identified and UNEP is finalizing the administrative procedures to retain her.
  - UNEP is in the process of identifying the members of the quality review team.
  - CAP staff have conducted initial background research on co-financing issues, including existing documentation of the experiences of other agencies' resource mobilization activities. CAP's internal learning process in this area is ongoing.

Regional workshops on co-financing

3. To date, UNEP has made the following progress with relation to the regional workshop component of the project:

- US\$ 80,000 of the project funds have been allocated for the workshop component and provided to the regional CAP teams.
- Internal discussions are underway within CAP to identify common agenda elements, workshop methodology, and key participants to invite to ensure a certain level of standardization and comparability across regions.
- The CAP teams are scheduling the regional workshops on co-financing in the context of the Regional Network meetings planned for 2013. As of today, the Main Network meetings are planned for:
  - Main Meeting of the West Asia Network of Ozone Officers, Bahrain, May 2013 (to be confirmed).
  - Joint Meeting of Pacific Island Countries (PIC), South Asia and South East Asia (SEAP) Networks of Ozone Officers, Gold Coast, Australia, 6-9 May 2013.
  - Annual Meeting of the ECA Network of Ozone Officers, Ohrid, FYR Macedonia, 21-23 May 2013.
  - Meeting of the Central America, South America and Spanish-speaking Caribbean Networks of Ozone Officers, Bogota, Colombia, 11-14 June 2013.
  - Joint Meeting of the English-Speaking and French-Speaking Africa Networks of Ozone Officers, Accra, Ghana, 23-26 September 2013.
- An initial roster of potential invitees/partners for the workshops has been developed, drawing on multilateral and regional financing mechanisms, carbon finance experts in the private sector, other private sector organizations. UNEP is continuing to expand this list.

**RESOURCE MOBILIZATION FOR CLIMATE CO-BENEFITS**  
***Final Report***

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**Introduction**

Through Decision 63/20, the Executive Committee approved US\$ 200,000 plus agency fees for UNDP, for the preparation of four pilot demonstration projects in the refrigeration and air-conditioning manufacturing sector to examine technical interventions to improve energy efficiency, national policy and regulatory measures to sustain such interventions in order to maximize the climate impact of HCFC phase-out, to be funded as resource mobilization activities on the following conditions:

- (i) That UNDP inform the Executive Committee of the four proposals specified above no later than the 67<sup>th</sup> meeting, noting that this would be submitted for information only and that these proposals would not be funded under the Multilateral Fund;
- (ii) That an interim report would be provided at the 66<sup>th</sup> meeting, which would include an update on the activities so far undertaken and address the following elements:
  - a. Additionality of the projects proposed;
  - b. Transparency and good governance, as well as covering the cash flow;
  - c. Assurance that these projects would avoid perverse incentives for countries;
  - d. Exploring possibilities of profit-sharing, including return of funds to the Multilateral Fund;
  - e. Ensuring sustainability of the projects proposed;
  - f. Avoidance of duplication of similar projects;
  - g. Information on transaction costs.

UNDP submitted an interim report to the 66<sup>th</sup> ExCom meeting, providing an update on the progress on this project, and through Decision 66/15 (l) UNDP submitted an additional and more detailed report to the 67<sup>th</sup> ExCom meeting. At its 68<sup>th</sup> meeting the Executive Committee decided (Decision 68/4):

(i) To take note of the important information on resource mobilization provided in the desk study on the evaluation of chiller projects as presented in document UNEP/OzL.Pro/ExCom/68/10 and noted in paragraphs 48 to 54 of the present report [i.e. 68<sup>th</sup> ExCom report];

(ii) To request that UNDP, UNEP, UNIDO and the World Bank take into account the information provided in the desk study, where relevant, and incorporate such information in the final reports on resource mobilization for climate co-benefits to be presented to the 69<sup>th</sup> meeting in the context of the terms of reference set out in decisions 63/20, 63/22, 63/23 and 63/24;

(iii) To request the Secretariat, in its review and summary of the final reports, to include an elaboration of the elements called for in the decisions of the 63<sup>rd</sup> meeting of the Executive Committee, in consultation with the respective implementing agency, and to provide its recommendations to the 69<sup>th</sup> meeting on criteria identified in those final reports that could facilitate consideration of whether to engage in a short-term pilot scheme for mobilization of financing for non-eligible projects.

## Background

The peak timeframe for implementation of HPMP Stage-I in A5 countries is during 2012-2015. During the implementation of HCFC phase-out in enterprises/sub-sectors/sectors involved in HPMP Stage-I, there is a unique window of opportunity to phase-in alternative technologies that are low-GWP, safe, cost-effective and energy-efficient, and thus maximize climate benefits of HCFC phase-out in HPMP Stage-I and beyond. This window is narrow and needs to be fully leveraged, because the enterprises would already be in the process of plant/process modifications during HCFC phase-out, and they may be reluctant to carry out plant/process modifications again/frequently. In the Air Conditioning and Refrigeration Sectors, additional opportunities exist for maximizing climate benefits through energy-efficiency enhancements, because of the intense energy use by the equipment, which contributes 60-90% to the lifecycle emissions.

Technical interventions needed to achieve additional climate benefits such as energy-efficiency enhancements, outside of the objective of phasing out HCFCs, may not be eligible for funding from the MLF.

Taking the above into account, UNDP has sought to mobilize resources from bilateral and multilateral sources as well as the private sector, which would be applied at the enterprise/sub-sector/sector level, to achieve/maximize climate benefits, beyond those that would be normally available through funding for HCFC phase-out alone.

The expected outcome of the funding approved for UNDP for resource mobilization, was the development of four concrete proposals, demonstrating the maximization of climate benefits during HCFC phase-out. It may be noted that preparing such proposals is meaningful only if the corresponding financing for the proposals is also mobilized, to ensure resources to successfully implement these proposals, and serve as an example of how such projects could be replicated in future.

## Update on UNDP's Resource Mobilization for Climate Co-Benefits

The following provides a summary of UNDP's efforts to date:

### 1. US Department of State

US\$ 1.7 million including agency fees was mobilized from US Department of State under its Global Climate Change Initiative, to carry out technology demonstrations for low-GWP and energy-efficient alternative technologies, at select enterprises in selected sectors/sub-sectors in the Asia-Pacific region. Funds have already been received by UNDP. The planned five sub-projects cover the following:

Country	Sector/sub-sector	Baseline	Technology
India	Polyurethane Foams (Rigid)	HCFC-141b/HC	HBA-2/FEA-1100/AFA-L1
	Commercial Refrigeration	HCFC-22/Energy-efficiency	R-290/R-600a
Indonesia	Commercial Air Conditioning	Energy efficiency	Compressors, fans, heat exchangers
Malaysia	Polyurethane Foams	HCFC-141b/HC	HBA-2/FEA-1100/AFA-L1
	Commercial Refrigeration	HCFC-22/Energy-efficiency	R-290/R-600a and compressors, fans and heat-exchangers

In addition to the technology demonstrations, following are the expected additional outcomes:

- Options for policies and regulations for sustaining technical interventions
- Recommendations for accounting of climate benefits
- Establishing benchmarks for costs and implementation timeframes

The overall project work plan comprises of the following key milestones:

Until 3Q 2013: Preparatory work (host country agreements, enterprise-level agreements)  
 Until 3Q 2014: Enterprise-level technology demonstrations  
 Until 4Q 2014: Compilation of results and supplementary interventions

## 2. Global Environment Facility (GEF)

In collaboration with UNDP's GEF-Climate Change Mitigation team, a proposal was developed and submitted to GEF, for energy-efficiency enhancements in the Air Conditioning and Refrigeration Sectors in Indonesia. The proposal, under GEF's climate change focal area, and within Indonesia's STAR allocation, has a projected grant funding of about US\$ 5 million.

Indonesia plans to phase-out HCFC consumption in manufacturing in these two sectors, as part of its HPMP Stage-I. This project includes technical and policy interventions, which would enable the Indonesian government and industry to enhance energy-efficiency of air conditioning and refrigeration equipment, contributing to Indonesia's voluntary CO<sub>2</sub> emission reduction targets by 2020. The key element of the proposal is that the same stakeholders who would participate in Indonesia's HPMP Stage-I, would receive additional assistance to achieve higher energy-efficiencies in their products. The HPMP Stage-I funding for these sectors, has been shown as concrete co-financing for the GEF proposal.

The proposal is technically cleared by GEF Secretariat and included in the next IWP of the GEF for Council approval.

## 3. Other bilateral and private sector partnerships

UNDP is pursuing mobilization of financing for energy-efficiency improvements and low-GWP alternatives from other bilateral donors.

UNDP is also in extensive engagement with private sector technology providers in the Foams, Air Conditioning and Refrigeration sectors, to precipitate additional investments for low-GWP and energy-efficient alternatives, through their subsidiaries in A5 countries.

## **Compliance with other provisions of Decision 63/20**

### Additionality of the proposed projects

The proposed projects specifically target outcomes that are additional to the HCFC phase-out objectives, either through use of further/emerging low-GWP alternatives or through achieving energy-efficiency enhancements or both, which are not normally eligible or funded by MLF.

### Transparency, good governance and covering cash flow

The funds mobilized would be managed and utilized in accordance with UNDP's rules and procedures and consistent with the agreements with the relevant donors. These funds would be accounted for and reported distinctly from MLF funds. It is not expected that the funding mobilized would be adequate to



cover all costs, and therefore co-financing commitments from the participating enterprises to the extent necessary would be obtained.

The MLF funding provided to UNDP will be utilized for developing the proposals and for mobilization of additional financing, for covering costs and overheads that are additional to UNDP's normal work under the MLF.

#### Avoiding perverse incentives

The technical and other outcomes for the sub-projects are clearly defined. The funds mobilized would be disbursed to the participating enterprises and/or other beneficiaries through performance-based agreements, with clear milestones, indicators and targets. The diligence as required in the agreements with donors will be duly carried out.

#### Profit-sharing and return of funds to MLF

The purpose of these resource mobilization efforts is to provide a guide/template on how such projects with multiple objectives and sources of financing can be developed and implemented. None of these projects envisage any revenue generation or profits. None of the external resources mobilized as a result of this effort, can be returned to the MLF. If there are any unutilized funds from the original US\$ 200,000 provided by MLF, then these could be returned to MLF under the normal terms of agreement between UNDP and MLF.

#### Ensuring sustainability

Due diligence has been and will be carried out to ensure that the selected beneficiaries are technically and financially sound. It is also expected that co-financing from beneficiaries would be needed for most of the interventions planned. This will ensure sustainability.

#### Avoidance of duplication of similar projects

UNDP has taken care to ensure that the sub-projects and beneficiaries are selected where UNDP already has a clear mandate to work in the specific sectors/sub-sectors in context of the HPMP Stage-I in the relevant countries. UNDP will also ensure that overlaps with other similar initiatives from different sources of financing are avoided.

Further, Decision 63/20 is specific to UNDP and overlaps with other agencies in this regard, are not envisaged. UNDP will however be ready to coordinate with other agencies to avoid any duplication of efforts.

#### Information on transaction costs

Information on transaction costs would be available only upon completion of the sub-projects. The expected completion of these projects would be by end-2014.

#### **Compliance with Decision 68/4 (ii)**

At its 68<sup>th</sup> meeting the Executive Committee decided:

(ii) To request that UNDP, UNEP, UNIDO and the World Bank take into account the information provided in the desk study, where relevant, and incorporate such information in the final reports on

resource mobilization for climate co-benefits to be presented to the 69th meeting in the context of the terms of reference set out in decisions 63/20, 63/22, 63/23 and 63/24;

It is important to note that the Executive Committee approved funds for UNDP “for the preparation of four pilot demonstration projects in the refrigeration and air-conditioning manufacturing sector to examine technical interventions to improve energy efficiency, national policy and regulatory measures to sustain such interventions in order to maximize the climate impact of HCFC phase-out.

The following lessons learnt applied to the kind of projects funded for UNDP, as follows:

1- The ability to mobilize external resources

The approach used to mobilize resources is in line with what was used for Chillers demonstration projects, where there was acceptance that (as per para 95 ExCom 68/10) counterpart and ODA grant co-financing options should be pursued where quick results are needed”.

In the specific case of the 4 pilots under implementation, the approach used to mobilize resources was to engage with the following partners/mechanisms:

- A) Private sector: HPMP implementation was already requiring substantive co-finance from private sector in developing countries, even for eligible components, due to agreed level of funding for the Stage I HPMP. Therefore it was of utmost importance we identified other sources of funding to cover of design changes in for instance conversion lines to cover for additional costs for climate related interventions.
- B) GEF: While GEF has proven to be a key partner regarding the mobilization of additional resources for maximization of climate benefits, lessons learnt from Chillers submissions to the GEF indicated that it is necessary to have project cycles to be somehow synchronized as to avoid long delays in funding (with loss of co-financers and lack of interest of clients in developing countries). In average, GEF project cycle from preparation until CEO endorsement may take 3 to 8 years, depending on many factors, including but not limited to GEF availability of resource to respond to large pipeline of climate mitigation projects, including from previous replenishment cycles. If synchronized and depending on the will of different partners, the duration can be substantially reduced and MLF funds for HPMPs can be used as the source of co-finance required by GEF.
- C) Bilateral Assistance: As per the report on lessons learnt from Chillers, UNDP agrees that “ because of their short processing time, and relatively quick on-the-ground results, the counterpart and ODA grant co-finance options lend themselves more easily to situations where early results are needed (for example meeting eminent phase-out deadlines)”.While the size of the assistance approved/required for pilot projects was limited, the results of resource mobilization via bilateral grant funding were good and funds were available quicker and implementation could start with no delay.

2. The potential to replicate the model used to other countries.

UNDP looked at the extent to what those projects can be replicated in the absence of additional resources from the Multilateral Fund. While there are common denominators, the interventions maybe quite different as the partners dealing with HCFC phase-out in sector plans in manufacturing sectors are quite different than companies and building owners dealing with chillers related demonstration projects.

The identification and sequencing of different sources of funds is something UNDP is experienced to do, with different funding sources in different areas. The challenge is to synergize among different funding mechanisms as to ensure funding is available when the country/company needs to make the necessary change. For that, the bilateral assistance has proven faster and more reliable, with fewer interventions from external bodies, and their decisions. The limitation is of course the volume of resources if replication is required at larger scale.

The option for co-finance through innovative funding arrangements indeed has a greater potential to generate a significant additional funding, but the complexity of such arrangements, while possible to generate as a model and replicate as such, have been proven difficult to implement on time for the required compliance of countries.

Any requests by the Executive Committee to continuously monitor and report on the implementation of projects approved by other funding mechanisms/sources (which fall out of the purview of the MLF), presents a big challenge.

In response to the Executive Committee decision on this matter, Secretariat has exchanged ideas with UNDP and requested further clarification of points in the Report. UNDP has added these exchanges as an Annex of our Report as it finds it to be more effective in enhancing the understanding of the Executive Committee members.

## **ANNEX: UNDP RESPONSES TO MLF SECRETARIAT COMMENTS ON UNDP FINAL REPORT ON RESOURCE MOBILIZATION FOR MAXIMIZATION OF CLIMATE CO-BENEFITS**

1. ***Secretariat:** Could you please give us an overall idea on how the resources provided under the project (US\$200,000) allowed UNDP to mobilize the resources indicated in the report (i.e. US\$1.7 million from the US and possible Indonesia project)? Please consider whether such additional resources could have been made available to UNDP without this funding support, and kindly provide a brief explanation why or why not?*

**UNDP Response:** The funds approved in the project were akin to project preparation costs and have been utilized to cover the incremental costs of staff time and travel, over and above their normal MP duties. In addition, the funds also covered incremental direct costs, such as workshops and meetings. Since UNDP MPU is a self-sustaining unit financed by MLF, which does not receive core funding from UNDP management, there was no other way that such additional resources could have been funded, except through external sources such as MLF, with a clearly defined purpose.

2. ***Secretariat:** In order for the Secretariat to have a better understanding of how the funding provided was used for and provide this same information to the Executive Committee, could UNDP please furnish some explanation on how these funds were used, taking into account that in the approval at the 63<sup>rd</sup> Meeting, the budget was envisaged for Technical experts/travel costs/DSA (US \$50,000 per project proposal)? The Secretariat would like to understand through the utilization of funds whether these could be considered an additional transaction or administrative cost that could contribute to a more sustainable resource mobilization exercise in future that could be taken into account when looking at the agencies' costs.*

**UNDP Response:** As explained in the response to the previous para, the funds were/are being utilized for the following:

- (a) Costs of MPU staff time over and above their normal MP duties
- (b) Costs of MPU staff travel over and above the normal MP budgets/needs
- (c) Costs of arranging meetings/workshops in several locations including the three countries

## (d) Costs of technical experts including time and travel

The above costs are incremental to the “business-as-usual” scenario where only the core MP objectives of ODS phase-out are funded through agency fees and core unit costs. In most of the projects we have mentioned, energy-efficiency enhancements form bulk of the co-benefits and are not eligible for funding under MLF. Thus the costs of preparing projects dealing with energy-efficiency enhancements are incremental to ODS phase-out alone. UNDP does not favour any idea regarding these costs being part of current fees system as we strongly believe the above costs are over and above the normal MP needs.

3. **Secretariat:** *The Secretariat also noted the need for a further analysis in the final report of the process of mobilizing resources undertaken by UNDP, and would like to have a better understanding of the following aspects:*

- *New approaches taken, if any. Did UNDP consider similar approaches used in the past, for instance, that for the chiller project?*

**UNDP Response:** As mentioned in the report above, while there are common denominators, the interventions maybe quite different as the partners dealing with HCFC phase-out in sector plans in manufacturing sectors are quite different than companies and building owners dealing with chillers related demonstration projects. The Chiller projects dealt with end-users/owners of ODS based equipment. The current projects are targeted to manufacturers of the equipment. The outcomes are different. So there is no prima facie similarity between these two types of interventions.

- *Lessons learned from past approaches and how these contributed to the current thinking adopted by UNDP*

**UNDP Response:** The key commonality between past approaches and the current projects is to ensure that project beneficiaries are financially viable and sustainable. But this should be true for any project, whether MLF or outside MLF.

- *Some insight into UNDP’s decision making process in selecting potential partners, for instance was it because of accessibility and closely linked objectives? Specifically, how did UNDP decide to work with the US and the GEF and not with other partners?*

**UNDP response:** It is the other way round. UNDP was selected by the United States Government through their procurement process. Regarding the GEF, UNDP had the comparative advantage, because UNDP is the lead agency for the Indonesian HPMP and is implementing the phase-out in the Air Conditioning and Refrigeration Sectors. So the Indonesian government selected UNDP.

- *In addition to the above, what decision parameters were also used by UNDP in selecting the pilot countries where such projects could be undertaken?*

**UNDP Response:** UNDP focused on countries, in which it was either the lead agency or was the agency responsible for implementing HCFC phase-out in the particular sector.

- *While the report briefly states that UNDP is pursuing mobilization of resources for energy-efficiency improvements and low GWP alternatives with other bilateral donors, could UNDP please elaborate even on brief bullet points what these potential initiatives are?*

**UNDP Response:** We have not yet decided the areas of intervention, nor is there any concrete progress in that direction to report. The potential bilateral donors could be Australia, Japan, etc., but even that is not in any way close to finalizing at this point.

- *Any other additional information that UNDP could provide would be really helpful.*

**UNDP Response:** nothing else regarding the points mentioned.

4. **Secretariat:** *In looking at the different elements required by decision 63/20, the Secretariat noted that the current information under each element is quite generic and does not really provide clarity that is specific to this exercise, and would perhaps benefit from further clarification. Please note some ideas below:*

**UNDP Response:** We don't agree with this assessment. Most of the elements described become applicable at best during or in most cases after the implementation stage of the projects.

- (a) *With regards to the additionality of the proposed projects, did UNDP look at additionality with respect to the Multilateral Fund and the GEF, taking into account specific mandates and guidelines existing for each funding agency? For instance, under the MLF would the concept of resource mobilization meet the concept of additionality to resources also ready existing even if the money does not necessarily go to the MLF directly? It would be interesting to get your views on this aspect.*

**UNDP Response:** As mentioned in this Report, the proposed projects specifically target outcomes that are additional to the HCFC phase-out objectives, either through use of further/emerging low-GWP alternatives or through achieving energy-efficiency enhancements or both, which are not normally eligible or funded by MLF. "Additionality" in this context is intended to mean no double dipping (funding for the same outcomes again). It is very clear that MLF funds agreed eligible incremental costs of phasing out ODS and does not fund any other costs. The projects for which we mobilized funding, target either energy-efficiency improvements and/or introducing lower GWP alternatives than those that were funded by MLF. There all these projects are clearly "additional" or incremental in terms of their outcomes.

- (b) *In looking at the concept of perverse incentives, could this be a case where the funds mobilized could act as a "perverse incentive" that could potentially reduce overall contribution to the MLF and instead be diverted to "voluntary contributions" (like the mobilized resources)? Would this work the same way with other funding sources like the GEF also? You may recall that this was one of the concerns of a number of Article 5 countries during the discussion of resource mobilization at the last MOP, where many of them were concerned about a reduced MLF replenishment if donor countries can pay into a voluntary account that would include an ozone-climate benefit?*

**UNDP Response:** In UNDP's view, "Perverse incentives" is not meant the way the Secretariat seems to have interpreted, at least based on our understanding of the particular ExCom member's interventions. We understood the question being whether a project which receives funding in this manner, will revert back to the earlier technology after completion (since there is no legally binding international framework), and may be seek further funding for the same basic objective. The analogy is drawn from HFC-23 capture and destruction funding received by HCFC-22 producers under CDM, where there is a risk that after the end of the typical 10-year CDM contract, the producers might start releasing HFC-23 to the atmosphere again. Another example is to increase HCFC-22 production to increase release of HFC-23 to gain more CERs. From this perspective, our projects do not carry this risk, simply because increased energy-efficiency in products require plant modifications which are not reversible and market competition tends to make lower energy-efficiency products obsolete over time.

- (c) *As mentioned in para 2 above, the Secretariat is concerned about the sustainability not just of the specific projects where resources have been generated, but also the overall approach of resource mobilization. What are UNDP's views on how this exercise could be sustained? Would there be a need for a more institutionalised funding (i.e. with core unit costs) that could cover a continuing exercise within the agencies?*

**UNDP Response:** On the first part of this question, as mentioned before, a key commonality between past approaches and the current projects is to ensure that project beneficiaries are financially viable and sustainable. But this should be true for any project, whether MLF or outside MLF.

Regarding the second part, on the overall approach of resource mobilization, UNDP's views are that more institutional funding is critical to the continuation and wider scale of the approach. Nevertheless, we strongly disagree that the additional finance should be part of the agency's fee system/ Core Unit budget. This exercise is above and beyond current agency fee component as agreed between the IA and the ExCom.

At the 21<sup>st</sup> MOP in Egypt and other meetings, including Executive Committee ones, UNDP has proposed "The Facility for Additional Income" (ODS Facility) as broader approach for the resource mobilization for climate benefits. Document UNEP/OzL.Pro/ExCom/58/49, refers to UNDP proposal. Regarding its relevance today, we still believe the ODS Facility could be quite applicable. It would obviously require some adjustments to the current reality. The argument for the ODS Facility remaining relevant is in our view two-fold:

- (i) Funds are a good modality now. With the carbon offset markets (e.g. CDM) currently struggling with very low prices, quite a few policymakers are looking at fund-based approaches to performance-based payments for emission reductions. So, for example, the TOR of the green climate fund has the ability to make performance based payments (to complement the carbon market doing so). Basically funds can act as a bridge during this difficult market period, until 2020, when a new global agreement comes into place and hopefully markets can pick things up. Funds also have the ability to more accurately pay the real incremental cost of the action.
- (ii) Sectoral approaches. The other big development in carbon finance is that there is more of a move to sector-wide, rather than project by project, approaches to mitigation. So if something like the ODS Facility was to come about, it could sponsor sector wide initiatives.

- (d) *The issue of avoiding the duplication of similar projects could somehow be linked to perverse incentives as well. The concern here was not merely an overlap with other agencies but a larger one that looked at the issue of possible double counting, where elements already funded would be funded elsewhere again. Could UNDP provide some views on this based on the recent experience?*

**UNDP response:** UNDP cannot control this element. If some other funding agency chooses, for whatever reasons, to fund our beneficiaries again, then the responsibility is of that funding agency. From our side, we only incorporate language in our agreements that the beneficiary will not seek funding for this objective again.

- (e) *The issue of transaction costs had also been mentioned above. Could UNDP provide an explanation on how this exercise differed from the normal project preparation (PRP) exercise done under the MLF? Please take note of the response to para 2 above for this, to get a better understanding on the use of the funds, and how they will continue to be used (in case there are still some balances left).*

**UNDP response:** In fact, this exercise does not differ much from the PRP exercise, except that instead of country specific PRPs as is the norm, this is a kind of global PRP. Regarding use of funds, please refer to our response under para 2.

5. *The Secretariat would also appreciate it if UNDP could draw some conclusions in a specific section of the final report on how successful (or not) was this exercise, how it had contributed to ensuring the consideration of climate co-benefits, how the process worked, etc, and what else needs to be done to make this more successful in the future.*

**UNDP Response:** The indicator of successful utilization this funding (for resource mobilization for maximizing climate co-benefits), is the fact that resources have been actually mobilized (US bilateral, GEF, etc) for concrete projects, which are currently under approval/implementation. Without the funds allocated by the MLF, we would not have envisaged such results happening.

6. *Secretariat: The Secretariat also noted UNDP's efforts in responding to the information required in decision 68/4(ii).*
7. *Secretariat: As this is the final report of this project, it will be appreciated if all these elements could be compiled into a possible new version of this report so that it can be comprehensively presented to the Executive Committee. As you may be aware, one of the aspects of UNEP's work for resource mobilization would be to share with Article 5 countries (especially LVCs) the approaches taken by the other agencies and therefore a more comprehensive report would be very welcome.*

**UNDP Response:** The report we are discussing currently, is UNDP's reporting to the ExCom on a specific project. It is our view that the kind of document the Secretariat is envisaging ("final or comprehensive report") should be a product of the MLF Secretariat, which can be used for information dissemination and knowledge sharing. Such a document can be produced as a result of an ExCom decision (after ExCom reviews, deliberates and acts on the current submission) requesting Secretariat and UNDP to jointly develop the document Secretariat is envisaging. According to us, this would be the appropriate procedure and we will be happy to collaborate with Secretariat on this work.



**FINAL REPORT ON DEVELOPMENT OF PILOT PROPOSALS FOR POSSIBLE CO-FINANCING FOR HCFC ACTIVITIES, TO BE FUNDED AS RESOURCE MOBILIZATION ACTIVITIES**

<b>COUNTRY:</b>	Global
<b>PROJECT TITLE:</b>	Conversion of HCFC-22 Based Facilities to Ozone and Climate Friendly Alternatives in the Fishing / Food Processing (Servicing) Sectors
<b>SECTOR COVERED:</b>	Replacement of existing industrial Refrigeration installations
<b>TOTAL PROJECT COSTS:</b>	USD 200,000 (excluding support costs)

**69<sup>th</sup> ExCom Meeting**



## FINAL REPORT

### CLIMATE BENEFITS GENERATED UNDER THE HCFC-22 PHASE-OUT AND CLIMATE CO-BENEFITS

#### 1. BACKGROUND

In order to expand linkages between Hydrofluorochlorocarbons (HCFC) phase-out under the Montreal Protocol and other environmental issues, such as climate change and energy efficiency, the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol (MLF) approved funding for UNIDO to prepare two project proposals to identify potential sources of co-financing to cover costs that are not eligible under the Multilateral Fund but that could generate additional climate benefits from non eligible activities under the HCFC phase-out.

In order to find a programmatic approach to the matter and in order to identify a methodology to be replicated in all HCFC programmes in the future, UNIDO has focused on the GEF as a main funding source for these activities. Other sources of funds have also been considered and approached during project inception, such as bilateral and multilateral partners, as well as voluntary and compliance carbon markets. As it stands now, available resources and timing made the selection of the GEF as target institution as the best option for this exercise. Nonetheless, UNIDO is still very keen on engaging with partners such as the EU and bilateral development agencies, as there is a great potential of scaling up the activities and impact of this project.

The project proposals developed by UNIDO are consistent with the GEF's Climate Change Mitigation Objective 1 that targets "innovative technologies with potentially significant long-term impacts on carbon emissions", which may "involve the demonstration, deployment, and transfer of commercially available technologies that were identified as priorities by the recipient countries but have not been widely adopted in their particular markets."

The project concepts have already been presented informally to the GEF Secretariat. Moreover, two interim reports have been submitted to the Secretariat of the MLF on the occasion of the 66<sup>th</sup> and 67<sup>th</sup> Meetings of the Executive Committee and have been formally discussed.<sup>1</sup> Furthermore, a meeting was organized in June 2012 between the representatives of the MLF and the GEF Secretariats as well as UNIDO to discuss the proposed approach. Since then other informal discussions also took place between UNIDO and the GEF Secretariat and the feedbacks are still very positive: the GEF

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<sup>1</sup> The relevant reports can be retrieved here:

"Report on implementation of approved projects with specific reporting requirements."

<http://www.multilateralfund.org/66/English/1/6617.pdf>

"Status reports and compliance." <http://www.multilateralfund.org/67/English/1/6706.pdf>

Secretariat confirmed its interest in exploring the future prospects of this pioneer approach.

Moreover, UNIDO has also approved a total of USD 368,000 additional funds as in-kind and cash contributions for the pilot projects in the Gambia and Viet Nam.

The pilot projects have fostered the cooperation of various interested departments at UNIDO with the Montreal Protocol Branch, such as those involved in Agro-Industry, Trade and Capacity-Building and Green-Industry development. This has become a cross-cutting issue at UNIDO which may grow considerably in interest and investment in the next few years.

## **2. ALLOCATION OF RESOURCES PROVIDED BY THE MLF**

The total project fund allocated to UNIDO has been allocated and distributed to the following key components related directly to the project formulation activities. UNIDO would like to highlight that these funds did not cover UNIDO's administrative costs.

- International Experts (Consultants),
- National Experts (Consultants),
- Project Evaluation (Appraisal), and
- Travel (International and National)

Through the fund mobilization allocation, UNIDO was able to initiate a new approach of project, which did not exist in the past within the MLF framework. The funds allowed UNIDO to invest in experts both National as well as International, which conducted country surveys, technology assessments, market trends, energy saving assessments, legal policies and legislations, all in sectors which are not eligible under the Multilateral Fund but that could generate additional climate benefits from non eligible activities under the HCFC phase-out.

Through the funding, the development of the three projects has been successful, including the mobilization of additional funding from both GEF and other co-financing entities. Without the MLF's contribution these project could not have been materialized, as UNIDO does not have financial resources within its core budget to be allocated to similar activities.

In regards to the utilization of these funds, UNIDO considers them to be neither "additional transaction" nor "administrative cost". UNIDO clearly understands that it is not related to administrative costs as explained above. In UNIDO's view, we consider this funding mechanism as "funding for additional project formulation". With the understanding that these funds must be applied to projects aimed at achieving climate benefits from non-eligible activities under the HCFC phase-out.

Moreover, these funds are used differently from PRP funds, mainly because the funding for additional project formulation objective is to achieve approved projects:

- Which directly contribute to climate benefits from non-eligible activities under the HCFC phase-out, and
- With funding outside the MLF.

### **3. UNIDO APPROACH**

#### **3.1 DECISION PARAMETERS**

##### **3.1.1 TARGET SECTOR**

As per ExCom decision, UNIDO focused on the preparation of two project proposals for possible co-financing for HCFC activities, to be funded as resource mobilization. UNIDO looked in all sectors covered by the MLF and identified the servicing sector as one of the most critical one in terms of sustainability, diffusion and dimension. Keeping in mind the very limited grant provided by the MLF for servicing activities, UNIDO focused on finding a mechanism for promoting the conversion of the existing installations with low-GWP and energy efficient technologies. UNIDO identified the fishery as the most appropriate sector for designing the pilot projects, since most of the technologies used in Article 5 countries in the industrial refrigeration in the sector (cold stores, fish processing, handling and ice-making plants and freezing units of fishing vessels) are high carbon emitting and work with low energy efficiency. This is why substantial energy efficiency gain can be reached through the introduction of alternative refrigerants with low global-warming potential. In addition, given the importance of fishery in the industry of numerous Article 5 countries<sup>2</sup> as well as the importance of the cold chain in that specific industrial sector, the project concept provides great potential for replications. However, slight modifications and adaptations will be needed based on the specific local conditions.

##### **3.1.2 TARGET COUNTRIES**

The funding approved by the MLF for the preparation of project proposals allowed UNIDO to identify three pilot cases in existing industrial refrigeration installations. The target countries were selected according to the size of the country, the geographical region and the role of fishery in the national industry. The interest of the country in the

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<sup>2</sup> According to the Food and Agriculture Organization of the United Nations (Fisheries and Aquaculture in our Changing Climate Policy brief of the FAO for the UNFCCC COP-15 in Copenhagen, December 2009), directly or indirectly, the livelihood of over 500 million people in developing countries depends on fisheries and aquaculture.

pilot proposal and the potential national co-financing naturally also needed to be taken into account.

After mapping several possibilities and considering a broad range of operating conditions of facilities, as well as social, political and economic environments, the best sites for the pilot projects were identified in existing industrial refrigeration installations in Viet Nam, Morocco and the Gambia.

### **3.1.3 ALTERNATIVE TECHNOLOGIES**

As part of the project preparation, international experts were appointed to visit the sites and explore the best technical solutions for the conversion of existing industrial refrigeration installations, keeping in mind that alternatives to HCFC-based systems should be ozone and climate friendly with highest priority to natural refrigerants (whenever possible), as well as bring improved energy efficiency to the system. Therefore, the three project proposals has been designed to target two main goals with three different approaches: minimizing the emission of chemicals damaging the ozone layer (i.e. HCFC-22) and mitigating direct and indirect greenhouse gas emissions, thereby building synergies across global environmental conventions.

The three project proposals explore a range of refrigerants with low global-warming potential, including ammonia-brine systems, CO<sub>2</sub> in single as well as cascade systems as well as HC units, pioneer and unique in its kind for such application, along with reduction of leaks of ozone-depleting substances and implementation of energy efficiency solutions. The goal is to find the best choice of replacement technology with the best environmental performance and best cost effectiveness. Furthermore, capacity building activities are an integral part of the proposals, ensuring that the conditions are favorable for the replication and sustainability of the projects after its completion.

### **3.1.4 GEF AS A MAIN CO-FINANCING PARTNER**

UNIDO aimed at mapping and identifying potential donors and funding for leveraging additional sources for the pilot projects. In the first phase of this thorough examination beside GEF, mainly those institutions and organizations were considered, which currently support projects in the target countries. Finally, in order to find a programmatic approach to the matter and to identify a methodology to be replicated in all HCFC programmes in the future, the focus was shifted to the GEF as a main funding source for these activities. Furthermore, the solid in-house expertise with GEF projects both in the field of energy efficiency and in ODS phase-out in countries with economies in transition also played an important role in the decision.

## **3.2 THE THREE PILOT PROPOSALS**

### **3.2.1 Viet Nam**

The objective of the proposed project is to reduce greenhouse gas emissions by creating an enabling environment for the use of low global warming potential (GWP) alternatives in cold storage facilities in Viet Nam that currently consume HCFC-22 for servicing and maintenance purposes. The project as a whole will focus on synergies between the UNFCCC and the Montreal Protocol and will also reduce ODS emissions. To reach this objective, the project will use a synergistic combination of technical assistance on policy and regulation, technology transfer, capacity building and awareness-raising.

The proposed initiatives developed under this project will help inform companies worldwide who face the common problem of having to procure future-proof plants that are affordable to run. Instilling knowledge of new technologies through this proposed project will prepare the cold storage industry in Viet Nam to select the best technologies in the conversion away from HCFC-22 avoiding the introduction of high GWP replacements.

Equipment upgrades will greatly reduce the emission of ozone depleting substances (ODS) and greenhouse gases by replacing HCFC-22 with non-ODS refrigerants with very low global warming potentials. The proposed demonstration projects will serve as a pilot for the conversion of other cold storage facilities in Viet Nam and elsewhere in both the choice of technology and project parameters.

The project includes three components in order to promote the development of a market for alternative low GWP refrigerants in the cold storage sector:

- 1) Policy and regulatory support;
- 2) Technology transfer; and
- 3) Capacity building and awareness raising.

A GEF Medium Sized Project Proposal (MSP) has been developed for Viet Nam and is ready to be formally submitted for the GEF Secretariat's approval upon formal endorsement of all co-financiers involved in the project. The NOU of Viet Nam has formally endorsed the project concept.

The logical framework summarizing all outcomes and outputs of this project can be found in Annex 1.

### **3.2.2 The Gambia**

The proposed project for the Gambia aims to reduce greenhouse gas emissions associated with industrial refrigeration facilities by removing barriers to increased energy efficiency and establishing the enabling environment for the introduction of low global warming potential (GWP) alternatives to HCFC-22. The project will use a synergistic combination of technical assistance on policy and regulation, capacity

building and awareness-raising. The project will design and implement incentives to support the adoption of energy efficiency measures; and pilot innovative technical assistance delivery mechanisms.

It is expected that the policy and regulatory support, local energy service providers mechanism, and awareness and capacity development initiatives put in place under this project will help to prepare the market for the future selection and adoption of low GWP alternatives that operate both more efficiently and use chemicals with lower GWP, while minimizing the use of chemicals damaging to the ozone layer and ultimately improving productivity of the fisheries.

The initiatives developed under this project will help inform companies worldwide who face the common problem of having to procure future-proof plants that are affordable to run, especially for small or medium-scale industrial applications. Instilling better practices and knowledge through this proposed project will serve as the foundation for the growing refrigeration demand in The Gambia in the future and prepare this industry to select the best technologies for this market.

A synergistic approach is proposed to create a policy and regulatory environment conducive to the adoption of new technologies; develop mechanisms for technology transfer through the provision of targeted technical support mechanisms to identify energy efficiency measures and refrigerant options - including their economic viability - and incentive mechanisms for owners/operators to carry out improvements; and implement targeted capacity building and awareness initiatives.

The project has three expected outcomes associated with three Components to improve energy efficiency and reduce ozone depleting substances (ODS) emissions in the industrial refrigeration sector in The Gambia:

- 1) Policy and regulatory support
- 2) Technology transfer support
- 3) Capacity development and awareness-raising

A GEF Medium Sized Project Proposal (MSP) has been developed for the Gambia and is ready to be formally submitted for the GEF Secretariat's approval upon formal endorsement of all co-financiers involved in the project. The NOU of the Gambia has formally endorsed the project concept.

The logical framework summarizing all outcomes and outputs of this project can be found in Annex 2.

### **3.2.3 Morocco**

The objective of this project is to lay the foundations for long-term reductions in greenhouse gas and ozone depleting substance emissions by demonstrating a leapfrog

technology using alternative refrigerants in fishing vessels that currently consume HCFC-22 for servicing and maintenance purposes. The project will demonstrate the conversion of cold stores and freezing units of fishing vessels in Morocco from HCFC-22 which has a global warming potential (GWP) of 1700, to the low GWP refrigerants CO<sub>2</sub> and HFO-1234ze (GWP of 6). The project thereby demonstrates the worldwide potential of leapfrog technology for fishing vessels in particular, and for medium-scale industrial and commercial refrigeration in general, both of which are currently dependent on refrigerants with high GHG and ODS emissions.

As consistent with the CCM-1 focal area strategy, the project will: (1) demonstrate and deploy a high efficiency low GHG technology with significant replication potential worldwide; (2) develop policy tools and mechanisms to support the transfer of the technology; and (3) offset GHG emissions through demonstration and deployment projects. This will directly feed into the CCM-2 strategy by establishing appropriate policy, legal and regulatory frameworks and exploring sustainable financing and delivery mechanisms, leading to the direct reductions in GHG emissions.

The project will demonstrate the use of a cascade system of CO<sub>2</sub> and HFO-1234ze to eliminate the emissions of ODS, reduce GHG emissions and improve energy efficiency substantially in deep sea fishing vessels, where viable alternatives do not currently exist. Through a pilot demonstration of this emerging clean technology followed by initial technology deployment the project will lay the foundations for large-scale replication.

A GEF Full Sized Project Proposal (FSP) is planned to be developed for Morocco and is likely to be submitted for the GEF Secretariat's approval for the Sixth Replenishment Period (GEF-6) starting in 2014. Under the current project find, the related PIF will be developed.

#### **4. MLF REQUIREMENTS**

##### **4.1 ADDITIONALITY OF THE PROJECTS PROPOSED**

###### **4.1.1 Elimination of ODS**

The projects in Viet Nam, the Gambia and Morocco aim to replace HCFCs with non-ODS, low GWP alternatives, thereby eliminating the use of ODS for refrigeration. As a result of the implementation of the projects, the emission of ODS would decrease to zero.

The definition of additionality depends to the target donor. The UNFCCC's Clean Development Mechanism (CDM), for instance, determines a project to be "additional" "... if anthropogenic emissions of greenhouse gases by sources are reduced below those

that would have occurred in the absence of the proposed project”<sup>3</sup>. In other words, the project must demonstrate that a Business-As-Usual scenario would not result in the project taking place and there will be no emission reductions.

The CDM Board provided examples that demonstrate “additionality” for small scale projects, and advises project developers to “...identify the most relevant barrier and provide transparent and documented third party evidence such as national/international statistics, national/provincial policy and legislation, studies/surveys by independent agencies etc”. The CDM Board recently elaborated on the definition of “additionality” when relevant to developing projects within a Programme of Activities<sup>4</sup> which remains similar to the definition above. Tools have been developed by the UNFCCC to demonstrate and assess additionality<sup>5</sup>.

The CDM Board described a number of barriers to implementing the project, including those related to investment, financial (loan), technological and regulatory/policy instruments. In general, the project should demonstrate additionality by providing information that shows 1) there is no regulation or incentive scheme in place covering the project; or 2) the project is financially weak or not the least cost option; or 3) there is a country risk with the implementation of new technology in the country.

The proposed projects in Viet Nam, the Gambia and Morocco would comply with most of the criteria used in the CDM for “additionality”, even though compliance with only one of the criteria would be necessary to demonstrate “additionality”.

In regards to the additionality with respect to the GEF, the projects must comply with all GEF requirements of additionality, which is fully considered in each project proposal. For every project, the GEF requires a specific description of baseline of the project as well as proposed alternative scenario, with a description of expected outcomes and components of the project. In the process of project formulation, all ongoing GEF as well as MLF projects in the respective countries were taken into consideration in the baseline scenario, and the project itself was developed additionally to what would have happened in all other projects. Subsequently, incremental costs of the proposed alternative scenario are calculated based on the baseline. Details on GEF operation and incremental cost calculation are available at the following link: <http://www.thegef.org/gef/node/1890>.

When analyzing the additionality aspect from the point of view of Multilateral Fund projects, it is clear that this project is additional to the baseline scenario as it is targeting a sector with HCFC consumption, where the retrofit or replacement of refrigeration

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<sup>3</sup> UNFCCC. 2011. [CDM Methodology Booklet](#). Glossary [of Terms], p236. November 2011.

<sup>4</sup> UNFCCC. 2011. Standard for demonstration of additionality...for programme activities. [EB65 Annex 3](#).

<sup>5</sup> UNFCCC. 2012. Methodological tool for the demonstration and assessment of Additionality. Vers. 06.0.0. [EB65Report](#), Annex 21: 13pp.



units into low GWP alternatives is not eligible for funding. This project is additional to the usual activities under HPMPs because it assures that in the phase-out of HCFCs, the project will introduce low-GWP alternatives and promote energy savings from converting technologies in existing refrigeration installations. From the point of view of the MLF, this is an investment as projects will accelerate the phase-out of HCFCs before the set deadlines of the Montreal Protocol and at the same time guarantee that the project sites are leapfrogging the use of HFC and adopting low-GWP alternatives. This GEF project will establish a low GWP development path for cold storage facilities as opposed to the high GWP development path that might result if the HPMP were not accompanied by projects focusing on greenhouse gas emissions such as this one.

#### **4.1.2 Improvements in energy efficiency**

Energy efficiency improvements reduce the energy use per unit of activity. Because the cost of energy is increasing in many countries, there is an increasing interest in minimizing energy use and improving profitability. Electricity charges also play a major role in the control and running of cold stores in Viet Nam and the Gambia as operators try to limit the operation of their refrigeration plants to the lowest tariffs periods, and sometimes even over-ride the plant automatic controllers.

When demonstrating and assessing ‘additionality’ under the CDM, “... changing the technology with and without a change to the source of energy (including an energy efficiency improvement)” is one of four types of measures that are applicable for reducing greenhouse gas emissions. Therefore energy efficiency improvement is one of the core ‘additionality’ criteria for which measures have been developed, even though a ‘reduction in energy’ is grouped within the jargon of the CDM as ‘additional’.

The CDM has developed methodologies for projects that use steam, pump water, make silicon and ferro alloys, replace inefficient boilers for space heating, light bulbs, chillers, power plant turbines, domestic refrigerator production, and fuel switching in new buildings<sup>6</sup>. Elements in these methodologies would be applicable to additionality tests for projects involving energy efficiency improvements related to the replacement of HCFCs.

In order to quantify the reduction in GHG emissions (direct and indirect) as a result of the change to non-ODS, low GWP alternatives, UNIDO will need to accurately assess the reduction in energy consumption by undertaking an energy audit. This will require an examination of the electrical consumption of the building and equipment over a number of years. A register will need to be developed of the equipment and its operational time, when relevant its capacity and power estimates. The thermal characteristics of the buildings will need to be determined with k values determined for the existing and

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<sup>6</sup> UNFCCC. 2012. Approved large scale methodologies related to energy efficiency improvements: AM0017 (steam), AM0020 (water pumps), AM0038 (silicon and ferro alloys), AM0044 (boilers), AM0046 (light bulbs), AM0060 (chillers), AM0062 (power plant turbines), AM0070 (domestic refrigerator production), AM0091 (fuel switching in new buildings). [CDM Methodologies](#).

future insulation. Load profiles for the cold stores need to be examined over several months. It is important to draw up an Energy Balance for the building and its equipment, and to make sure that the 'balance closes' and that there are no 'unexplained' gaps in the supply and demand. This procedure needs to be standardized so that benchmarking can take place between the existing and other cold stores in the project sites.

## **4.2 TRANSPARENCY AND GOOD GOVERNANCE**

### **4.2.1 Transparency**

UNIDO has developed an Enterprise Resource Planning (ERP) system to improve transparency, information flow, efficiency and effectiveness<sup>7</sup>. ERP facilitates the flow of information between all business functions inside an organization and manage the connections to outside stakeholders. Built on a centralized database, ERP systems consolidate all business operations into a uniform and organization-wide system environment.

ERP provides an integrated suite of IT applications that, following best practice, support business processes and activities such as project management, human resource management, finance, procurement and other corporate core functions, both at Headquarters and the field. The implementation of an ERP system will deliver a fully transparent end-to-end process from identification of needs to achievement of project results i.e. the whole project cycle on one ERP platform; and it will share information without duplication, seamlessly connecting operations at Headquarters and field and across business functions and units.

ERP is part of UNIDO's Programme for Change and Organizational Renewal (PCOR) that aims to increase organizational efficiency and effectiveness by fundamentally changing UNIDO's way of doing business and, at the same time, promote a proactive work environment, organization-wide knowledge sharing, risk management and better results-based management to allow for consistent reporting of results to all stakeholders.

### **4.2.2 Good governance**

UNIDO has developed a primer<sup>8</sup> that provides information on good organization, management and governance practices for organizations that fulfill at least in part a public good role, and practical applications for providers of Resource Efficient and Cleaner Production (RECP) services in different regions. The guiding principles of this primer will be used throughout the implementation of the three pilot projects. Governance is defined as "... the processes and interactions by which the organization

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<sup>7</sup> UNIDO. 2012. What is ERP? [UNIDO website](#).

<sup>8</sup> UNIDO. 2010. Good organisation, management and governance practices: A primer for providers of services in Resource Efficient and Cleaner Production. [UNIDO](#).

engages and consults with its stakeholders and accounts for its achievements. Governance characterizes how things are decided and then realized within an organization, be it a government or a company. Governance determines how organizations are directed, administered or controlled”.

This primer developed by UNIDO and UNEP provides information on the role and composition of a board; procedures used to control, decide and govern; transparency and accountability; conflicts of interest; stakeholder engagement and external communication; operational management; financial management; other aspects.

At present there is no common agreement on how governance can be specifically applied to resource mobilization projects that are implemented for improvements in energy efficiency. UNIDO is willing to work with other agencies and the MLF to use rules and procedures that have been developed to track carbon offsets and other relevant programmes, such as establishing a board and advisory groups; setting boundaries on project eligibility and geographic restriction; defining what types of energy efficiency projects would be included; defining validation and verification procedures; defining the project approval process; establishing a registry; establishing rules to avoid double counting and accounting for energy efficiency reductions; and providing financial information on transaction costs.

#### **4.3 ASSURANCE THAT THESE PROJECTS WOULD AVOID PERVERSE INCENTIVES FOR COUNTRIES**

A perverse incentive is one that “... has an unintended and undesirable result which is contrary to the interests of the incentive makers”.

The funding of HFC-23 abatement as a by-product of HCFC-22 production is often used as an example of a “perverse incentive”. Although the CDM methodology contains a cap on HCFC-22 production eligible for crediting, the incentives from the CDM resulted in more HCFC-22 being produced (to generate HFC-23) than would have been produced without the CDM. Increased production of HCFCs was not intended by the Parties to the Montreal Protocol that agreed in 2007 to significantly accelerate the phase out of HCFCs<sup>9</sup>. As a result, the HFC-23 abatement projects have generated almost half of the Certified Emission Reductions generated under the CDM as the return on investment through the carbon market is 70-90 times more than the cost of destroying HFC-23. Since 2007, 19 HFC-23 abatement projects have been approved including eleven in China, five in India and one each in Argentina, Mexico and South Korea. Changes<sup>10</sup> to the

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<sup>9</sup> UNEP. 2007. Decision IXX/6: Adjustments to the Montreal Protocol with regard to Annex C, Group 1, substances (hydrochlorofluorocarbons). [Ozone Secretariat website](#).

<sup>10</sup> UNFCCC. 2011. Report of the 65<sup>th</sup> Meeting of the CDM Board. [Paragraph 86](#): Summary of changes to AM0001 methodology.

methodology<sup>11</sup> that were recently approved by the CDM Board with the aim of eliminating this perverse incentive are believed by some to be insufficient<sup>12</sup>.

The MLF, in establishing the Terms of Reference<sup>13</sup> for the audit of HCFC production in developing countries, aimed to determine if the high HCFC-22 production was driven either by the demand for feedstock for TFE/PTFE or refrigeration purposes, or for financial reward of the CDM credits. Tetrafluoroethylene, the direct reaction product of HCFC-22, is not just used to make PTFE polymer, but is also used to make HFC-125 which is one component of R410a. The audit was required to collect national and individual plant data, place them in the global context for a supply and demand analysis, and assess the impact of the CDM on an individual company, as well as on national and global situations.

#### **4.3.1 Other activities that might result in a perverse incentive**

There are concerns that carbon payments for destruction of ODS will result in virgin ODS being deliberately contaminated and then submitted for destruction. As the projects in Viet Nam, the Gambia and Morocco do not require destruction of the HCFCs, they might legitimately be placed on the market as recycled HCFCs that could be used for servicing of equipment. A perverse incentive related to destruction therefore is unlikely to eventuate.

#### **4.3.2 Organizational activities that guard against perverse incentives**

Unlike the CDM review process that failed to act in a timely manner to address deficiencies in the methodology that led to the perverse incentives associated with the production of HFC-23, the MLF has a number of procedures in place that make the likelihood of perverse incentives unlikely. The MLF activities that limit the liability of the Fund to perverse incentives include:

1. Timely project assessment and review through various MLF committees, most notably the ExCom. The ExCom routinely requests further information on a project as part of the process of deciding whether or not to fund the project;
2. Timely modification of the HPMP requirements to ensure appropriate action by Parties e.g. for all submissions from the 68th Meeting onwards, the MLF requires notification by the Party requesting funds for HPMP that an enforceable national system of licensing and quotas for HCFC imports and, where applicable, production and exports is in place and that the system is capable of ensuring the

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<sup>11</sup> UNFCCC. 2011. Approved baseline and monitoring methodology AM0001 “Decomposition of fluorocarbon (HFC-23) waste streams. Vers. 06.0.0. [Annex 10 of EB65](#).

<sup>12</sup> EIA. 2012. Response to call for public inputs on issues to be addressed in the CDM policy dialogue. [UNFCCC website](#).

<sup>13</sup> MLF. 2010. Terms of Reference for the Technical Audit of HCFC Production in Article 5 countries. UNEP/OzL.Pro/ExCom/60/54 Annex IX para 4.

- country's compliance with the Montreal Protocol HCFC phase-out schedule for the duration of this agreement<sup>14</sup>;
3. Projects for the conversion of HCFC-based manufacturing capacity installed after 21 September 2007 would not be considered. This restricts the quantity of HCFCs that would need to be phased out, in the event that some facilities are installed after this date. Since HCFC consumption has continued to increase after this date, it is reasonable to assume that in many countries additional facilities have been put in place for which the fund is not liable.
  4. The MLF reduces its liability for ODS phase out by operating at a country level.

In addition, it is important for the MLF establish a registry that contains the relevant details for projects that are co-financed with the MLF. Such a registry could be checked to reduce the risk of duplication of requests, or conversely that a single enterprise is not “double dipping” for funds from multiple sources.

In addition, it is important that the MLF does not specify eligibility criteria based on the minimum size of the cold store equipment, as those with smaller equipment may increase the size in order to comply with a the project criteria.

#### **4.3.3 Perverse incentives that could potentially reduce overall contribution to the MLF and instead be diverted to “voluntary contributions”**

As these GEF pilot projects fall exclusively under the focal area of the GEF “Climate Change Mitigation,” global environmental benefits of projects are calculated in terms of quantity of tons of CO<sub>2</sub> equivalent mitigated, rather than ozone depleting potential (ODP). The mandate of the GEF is not to reduce the consumption of ozone-depleting substances in Article 5 countries, therefore, the amount of ODP reduced cannot be an outcome indicator, which means donors may not claim directly protecting the ozone layer by a specific amount through GEF projects.

This means that the GEF itself as well as its donors are focusing on the climate change benefits of the project, and ozone as well as other environmental benefits come as value added of climate change projects. The scope of GEF projects is very broad and comprehensive and donors welcome cross-cutting issues rather than see it as an incentive to cut contributions elsewhere. Besides the protection of the ozone layer, for instance, projects targeting the fishing industry also have a positive impact on biodiversity, as improving refrigeration practices help optimize resources throughout the value chain and therefore help to reduce the pressure on fisheries resources and contribute to conservation of fisheries biodiversity. The same rationale would apply to other funding sources like the GEF.

#### **4.4 ENSURING SUSTAINABILITY OF THE PROJECTS PROPOSED**

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<sup>14</sup> MLF. 2011. UNEP/OzL.Pro/ExCom/63/60, Decision 63/17 para 71

The projects aim at identifying the best technology options for replacing HCFC-22-based industrial refrigeration facilities in different sectors, climates and environments. Pilot conversions will enable generating experiences on the adoption of low-environmental impact technologies in the conversion of existing industrial refrigeration installations, including cost for conversion and assessment of climate benefits. The projects will provide information on most suitable financial mechanisms to leverage additional funds to promote the conversion of the remaining similar industrial refrigeration installations, including fishing vessels.

From the implementation of the approved pilot cases, UNIDO's ultimate goal is to gain experience and expertise that can be used to better assist various countries in developing their national strategy for the HCFC-22 phase-out in the fishing / food processing sectors.

Besides the above mentioned, the demonstrated willingness of the potential partners gives the promise of a successful cooperation for sustainable project outcomes.

Therefore, UNIDO sees the need for sustaining similar activities. However, the main concern would be the means of financing the direct project formulation costs. UNIDO has highlighted before that this project does not relate to core unit cost and therefore, should remain as a stand-alone approach. UNIDO would stand ready to review any suggestions put forward in regards to the establishment of an additional funding source with the main function to provide recourse mobilization within the framework of the of attracting other donors or co-financers for projects, which directly contribute to climate benefits from non eligible activities under the HCFC phase-out.

#### **4.5 AVOIDANCE OF DUPLICATION OF SIMILAR PROJECTS**

The term double counting can refer to Double Monetization which occurs when a singular GHG emission reduction or removal is monetized once as a GHG credit and a second time as a GHG allowance<sup>15</sup>.

Rules have been developed to guard against both eventualities in all reputable protocol standards that have been developed to track carbon offsets<sup>16</sup>. Similar rules could be adopted in the MLF's resource mobilization projects to guard against programme participants making multiple claims for financial support for the same project. GHG programmes can address this through oversight procedures such as a registry that could be developed for resource mobilization projects.

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<sup>15</sup> VCS. 2012. Double counting: Clarification of the rules. [VCS 1 February 2012](#).

<sup>16</sup> 3Degrees. 2011. [Carbon Protocols, standards and registries: Climate Action Reserve; Clean Development Mechanism; Good Standard Foundation; Verified Carbon Standard; Chicago Climate Exchange \(CCX\)](#).

All GHG programmes must address double counting of GHG emission reductions and removals to ensure environmental integrity. Duplication of projects has been an issue in projects in the Kyoto Protocol, the EU Emissions Trading Scheme and the Voluntary Carbon Market that have the potential to claim the same greenhouse gas credits more than once. GEF projects are no different.

GEF projects should always outline the existence of similar projects in the relevant region and country in the baseline scenario in order to assess how existing projects interfere/interact with the proposed project. This is to avoid the duplication of similar projects and double counting of GHG emission reductions as well as assure additionality of the proposed alternative scenario.

Moreover, the proposed GEF projects will be implemented parallel to stage I of the HPMP and thus prior to stage II of the HPMP. Hence, this project will be incremental to the limited number of activities affecting the cold storage sector that are included in the HPMP stage I and will set the baseline for the HPMP stage II, therefore avoiding double-counting. Although stage II for most of the countries is foreseen to cover the servicing sector in a robust manner, the aim of the HPMP is only the reduction of ODS emissions and it does not deal with greenhouse gas emissions. This GEF project will establish a low GWP development path for cold storage facilities as opposed to the high GWP development path that might result if the HPMP were not accompanied by projects focusing on greenhouse gas emissions such as this one.

Furthermore, before the development of a GEF proposal and in line with the ExCom Decision 63/23, UNIDO addressed the issue of the nature and scope of project to other implementing agencies of the Multilateral Fund requesting verification through official communication on the existence of projects which target the same sectors (fishing / food processing (servicing) sectors).

#### **4.6 INFORMATION ON TRANSACTION COSTS**

UNIDO does not plan to apply for carbon finance for the resource mobilization projects that achieve energy reductions as a result of upgrading the technology. Therefore, UNIDO does not believe that transaction costs are applicable at this time.

### **5. LESSONS LEARNED**

#### **5.1 LINKAGES WITH CHILLER PROJECTS**

##### **4.1.1 Lessons Learned**

A “Desk Study on The Evaluation Of Chiller Projects”<sup>17</sup> has been circulated during the 68th Meeting of the Executive Committee. UNIDO has noted all lessons learned from the desk study and will take them into account in the process of project implementation.

UNIDO has especially taken into consideration that different methodologies and replacement schemes, with a high degree of flexibility, are necessary to adapt a programme to the needs in different countries where markedly different local conditions prevail. This is already reflected in two of the pilot cases. In Viet Nam, a deal has been agreed with the Vietnamese Environmental Protection Fund to provide with soft loans for facility owners. In the Gambia, a revolving fund will be established with the Ministry of Environment.

UNIDO has also noted that co-financing with the GEF has proven to be a key partnership in chiller projects. However, the necessity of synchronizing two major funding sources, the Multilateral Fund and the GEF, can introduce a two to three year project delays but ultimately can create revenue streams that encourage national engagement. Additional high-level meetings between the two should be arranged in order to settle both issues.

The Regional African Chiller project was UNIDO’s first attempt to mobilize additional funds through the phase-out of ODSs. The chiller project aims at promoting energy efficient replacements of CFC-based chillers by offering the replacement of 30 chillers in six African countries. The project attempts to remove the barriers to chiller replacement by illustrating a financial and institutional mechanism able to support chiller replacements while making use of and building on existing instruments within the energy market. A full report on the African Chiller Project will be submitted to the 70<sup>th</sup> Meeting of the Executive Committee of the MLF.

Through chiller project, different financial mechanisms were established in different countries. In Egypt, for instance, a scheme with the National Bank of Egypt was established for the provision of soft loans for companies interested in replacing their old chillers while, in Cameroon, a revolving fund was put in place. Such schemes are necessary, especially in Africa, because beneficiaries do not have the means to give up-front payments for new chillers and in order to ensure the sustainability of the project. This also applies for this project replacing HCFC-based systems. As mentioned, in order to produce sustainable incentives for natural refrigerants, similar schemes must also be put in place. In Viet Nam, soft loans for companies will be facilitated through the Vietnamese Environmental Protection Fund. In the Gambia, a revolving fund will be established.

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<sup>17</sup> “Desk study on the evaluation of chiller projects.”  
<http://www.multilateralfund.org/68/English/1/6810.pdf>



The chiller project serves as valuable experience in building trust between different stakeholders in the private and public sector. In Africa, it has become evident that it is difficult to maintain a sustainable relationship between banks, companies and the government due to the lack of transparency. The chiller project is therefore an example of how to foster cooperation amongst partners in order to achieve a sustainable solution. This will be the case for all three pilot projects currently being developed, as well as future ones. UNIDO shall take the experience from the chiller projects into consideration when developing financial mechanisms for the replacement of HCFC-based systems.

#### **4.1.2 New Approach**

Although the two pilot projects (i.e. resource mobilization and chiller programme) are in principle similar, there are limitations in terms of lessons learned. It was necessary e.g. to develop a new approach towards partners and co-financiers: in the chiller project, most of the mobilized funds come from beneficiary companies, since it is a one-time approach. On the other hand, when addressing the issue of HCFC-based systems, a one-time approach is not sufficient to tackle the problem, and a programmatic method should be developed. That is why UNIDO is focusing on the GEF as a partner for these three pilot projects in Viet Nam, the Gambia and Morocco. Upon the successful completion of these projects, it is expected that similar concepts could be developed to replace HCFC-based systems, to be extended also to different sectors and countries.

## **5.2 GEF PROJECT DESIGN AND DEVELOPMENT**

### **4.2.1 GEF Star Allocation and Competition For Funds**

The STAR is a short name of the System for Transparent Allocation of Resources. With the STAR, the GEF Secretariat allocates resources in an indicative way to its eligible countries in a replenishment period. In the fifth replenishment period of the GEF (GEF-5), the STAR covers three focal areas: biodiversity (BD), climate change (CC), and land degradation (LD).<sup>18</sup> Although this system gives predictability of funding and flexibility in programming for eligible countries, it also restrains implementing agencies in terms of potential projects, as they are subject to competition for funds.

With the STAR system, availability of funds depends greatly on:

- Country;
- Number of GEF implementing agencies in the country;
- Allocation of funds for each focal area and number of similar projects;
- Project size;
- Timing.

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<sup>18</sup> [http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF\\_STAR\\_A4\\_april11\\_CRA.pdf](http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF_STAR_A4_april11_CRA.pdf)

In the case of the three pilot cases, availability of GEF funds was limited as this initiative came about quite late into the fifth replenishment period. Usually, in order to ensure greater availability of funds, implementing agencies should try to have projects approved early in the GEF cycle. In the case of Viet Nam, for instance, GEF funds had to be cut down from planned USD 900,000 to approximately USD 300,000 due to stark competition for funds. For Morocco, the proposed project had to be postponed because funds were no longer available for climate change projects under GEF 5. The GEF focal point also expressed the preference of the country towards Full Sized Projects (over USD 2 Mio GEF contribution), therefore UNIDO must wait until the next cycle in order to apply for GEF funds in Morocco. For future projects, concepts should be developed well in advance so that funds can be secured for planned activities.

#### **4.2.2 The GEF Approach**

The GEF approach in regards to project design and development is a very holistic one, which involves the engagement of several counterparts, co-financiers prior to project approval. It also requires a broader approach to project impact, including several aspects besides the targeted focal area such as socioeconomic benefits. Below the characteristics of this approach which are the most striking when compared to the development of MLF-funded projects:

a) Co-financing

Developing a GEF project requires intensive exchange with the host government and potential donors/co-financiers. This includes defining modalities of cooperation, activities and co-financing schemes.

b) Project Endorsement Process

Prior to formal submission of a project to the GEF Secretariat, an endorsement letter is required from the GEF Operational Focal Point<sup>19</sup> and from all the co-financiers. This procedure, depending on the national routine, can take more than six months.

c) Socioeconomic benefits

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<sup>19</sup> The GEF Focal Points play a critical coordination role regarding GEF matters at country level as well as serving as the liaison with the GEF Secretariat and Implementing Agencies. The GEF Political Focal Points are concerned primarily with issues related to GEF governance, including policies and decisions, as well as relations between member countries and the GEF Council and Assembly. The GEF Operational Focal Points are concerned with the operational aspects of GEF activities, such as endorsing project proposals to affirm that they are consistent with national plans and priorities and facilitating GEF coordination, integration, and consultation at country level.

Besides promoting integrated approaches that tap the potential for synergies across global environmental issues and ensure that resources and capacity build are best utilized, GEF strongly requires the delivery and monitoring of socioeconomic benefits at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits.

In order to strengthen the gender mainstreaming argumentation in UNIDO's two proposal, extensive consultations took place with UNIDO's Gender Focal Point and the project documents were adjusted accordingly.

## **6. CONCLUSIONS**

In the selection of alternative technologies to replace ODSs, energy efficiency has always been taken into account at UNIDO. However, in the recent years, the introduction of low GWP and high energy efficiency alternatives has gained even higher attention to achieve additional climate benefits in the ODS phase-out process. UNIDO is constantly looking into the assessment of climate impacts of the MP activities, including the application of the Multilateral Fund Climate Impact Indicator (MCII) and the GEF Tracking Tool for Climate Change Mitigation Projects. Recognizing the increasing importance of the subject, staff members regularly participate in trainings and related events.

While developing the three pilot projects, it has also become evident that on the country level it would be also necessary to raise awareness, since it is still not fully clear to NOUs how to mobilize additional funds based on climate benefits generated through the phase-out of HCFCs. This happens because the MLF mechanism is a very specific one, and usually NOUs are not exposed to other environmental financial mechanisms. It is, therefore, of paramount importance that NOUs receive training on GEF mechanisms, as well as others, in order to appreciate the differences between MLF and the GEF. This would allow them to facilitate the dialogue with GEF focal points and substantially contribute to project development.

Given its pioneer nature, the present exercise has been a challenge for UNIDO. The brainstorming, the process of exploring the potential co-financing sources, the selection of the target countries, the information and knowledge sharing with the other technical branches of UNIDO all helped our team to have a better understanding on the complex issue of generating climate co-benefits. Furthermore, UNIDO has been working out mechanisms to strengthen the synergies and cooperation with other branches in-house dealing with climate change and energy efficiency, which promises interesting opportunities for the future.

Future Montreal Protocol projects at UNIDO will definitely benefit from the broader perspective gained through the preparation of this exercise.

## ANNEX 1: PROJECT RESULTS FRAMEWORK – VIET NAM

<b>Project Narrative</b>	<b>Indicator</b>	<b>Sources of Verification</b>	
<b>Project Objective</b> Reduction of greenhouse gas emission in the cold storage sector in Viet Nam.	<i>Direct emission reduction:</i> Direct emissions reduction of 20,000 tonnes of CO <sub>2</sub> equivalent (with the elimination of HCFC-22, with global-warming potential of 1,810) <i>Indirect emission reduction:</i> GEF bottom-up methodology – Indirect emissions reduction of 81,000 tonnes of CO <sub>2</sub> equivalent through all the activities GEF top-down methodology – 117,000 tonnes of CO <sub>2</sub> equivalent through all the activities	Reports from MONRE during and after the duration of the project.	
<b>Component 1: Policy and Regulatory Support</b>			
<b>Outcome</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Policy, regulatory and legal measures are adopted by the government to support the adoption of low global-warming potential and energy efficient technology.	Number of national policies changed or adopted in favour of the use of alternative technologies with low global-warming potential.	Public records such as government websites and publications in the national gazette.	Assumes no radical shifts in Government priorities.
<b>Outputs</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
1.1 Gap analysis carried out in the national policy, legal and regulatory frameworks.  1.2 Relevant recommendations drafted into	Availability of gap analysis report.  Number of laws/regulations/guidance (new or amended) in favour of	Project progress report  UNIDO project progress report.	Continuous government support and participation.

the national laws/regulations/guidance.	low global-warming technologies promulgated.		
<b>Component 2: Technology Transfer</b>			
<b>Outcome</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Technology with low global-warming potential (hydrocarbon system) is demonstrated, replicated and deployed.	Up to 20,000 tonnes of CO <sub>2</sub> emission reduced, by enterprise/facility  Energy efficiency gain in percentage, by enterprise/facility  Technicians of 12 enterprises/facilities reported that they can operate the new technology independently	Records of each enterprise/facility to the National Cleaner Production Centre  Validation reports from MONRE  Reports from the Viet Nam Environmental Protection Fund (VEPF).	The companies want and can proceed with the conversion process.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
2.1 Two pilot demonstration conversions are carried out: 2 cold storage facilities converted from HCFC-22 use to hydrocarbon systems.	Technology designs are available what time of equipment are installed  No of. technicians from each facility are trained	Records of each enterprise/facility to MONRE  Validation reports from MONRE  Reports of the Viet Nam Environmental Protection Fund	The initial two pilot projects are successful.  There is sufficient interest from private sector and trainee technicians.  The companies are able to use and
2.2 The demonstration			

conversions are replicated in up to 10 facilities.	(disaggregated by gender)  Monitoring of the results is continuous for minimum 12 months. Reduced emission of greenhouse gases and improved energy efficiency are verified.  Up to 900,000 USD from the Viet Nam Environmental Protection Fund will cover the costs from the new equipment in these 10 companies.	(VEPF).  UNIDO project report.	maintain the new technology.  Trainees value the information provided and are able to use it in their day to day activities.
<b>Component 3: Awareness raising</b>			
<b>Outcome</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Demand for low-GWP refrigerant systems that are more energy efficient than existing technologies is increased.	At least 20 firm inquiries indicating intent to use alternative refrigerants made to MONRE	Report from MONRE indicates their interest towards the technology.	Continuous support and participation from national authorities and companies.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>

<p>3.1 Lessons learnt and information on technology solutions is disseminated to policy makers, companies, and technicians.<sup>20</sup></p>	<p>Written materials delivered to 50 policy-makers by month 18 (disaggregated by gender).</p> <p>Up to 10 bilateral meetings carried out by month 24.</p> <p>Up to 100 attendees at stakeholder meeting (disaggregated by gender)</p>	<p>Market survey at the end of the project: demand for replicating the technology in other sectors.</p> <p>Monitoring reports on events and activities.</p>	<p>Assumes the ability to gain media attraction on the issues.</p> <p>Continuous government support and participation.</p>
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<sup>20</sup> All awareness and capacity indicators will be collected disaggregated by gender



## ANNEX 2: PROJECT RESULTS FRAMEWORK – THE GAMBIA

Project Narrative	Indicator	Sources of Verification	
<p><b>Project Objective</b></p> <p>Reduction of greenhouse gas emission associated with industrial refrigeration and air-conditioning facilities in The Gambia</p>	<p><i>Direct emission reduction:</i> Direct emissions reduction of 56,000 tonnes of CO<sub>2</sub> equivalent through all the activities (elimination of the use of HCFC-22, with GWP of 1,810, and improved energy efficiency)</p> <p><i>Indirect emission reduction:</i> - GEF bottom-up methodology Indirect emissions reduction of 222,000 tonnes of CO<sub>2</sub> equivalent through all the activities - GEF top-down methodology 432,000 tonnes of CO<sub>2</sub> equivalent through all the activities</p>	<p>Reports from the National Ozone Unit and The Gambia Technical Training Institute during and after the duration of the project.</p>	
<b>Component 1: Policy and Regulatory Support</b>			
Outcome	Indicator	Sources of Verification	Assumptions/Risks (see section 4)
<p>Policy, regulatory and legal measures are adopted by the government to support the adoption of low global-warming potential and energy efficient technology.</p>	<p>Number of national policies changed or adopted in favour of the use of alternative technologies with low global-warming potential.</p>	<p>Public records such as government websites and publications in the national gazette.</p>	<p>Assumes no radical shifts in Government priorities.</p>
Outputs	Indicator	Sources of Verification	Assumptions/Risks (see section 4)
<p>1.1 Gap analysis carried out in the national policy, legal and regulatory frameworks.</p> <p>1.2 Relevant recommendations drafted into</p>	<p>Availability of gap analysis report.</p> <p>Number of laws/regulations/guidance (new or amended) in favour of</p>	<p>Project progress report</p> <p>UNIDO project progress report.</p>	<p>Continuous government support and participation.</p>

the national laws/regulations/guidance.	low global-warming technologies promulgated.		
<b>Component 2: Technology Transfer</b>			
<b>Outcome</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Technical and financial support on replacement refrigerants, and reducing greenhouse gas emissions and operational costs, is ensured.	Up to 56,000 tonnes of CO <sub>2</sub> equivalent emission reduced  Energy efficiency gain in percentage, by enterprise/facility  Up to 60 facilities involved in interventions of various scales	Records of each enterprise/facility to the National Ozone Unit and to The Gambia Technical Training Institute  Validation reports from The Gambia Technical Training Institute	The pilot demonstration systems with low global-warming potential refrigerants installed.  The companies want and can proceed with the conversion process.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
2.1 Refrigeration and air-conditioning support mechanisms established and piloted  2.2 Incentive Mechanism piloted	Up to 20 Support Service providers certified through course given at the training institute (disaggregated by gender)  Over 30 interventions supported through the Incentive Mechanism  Monitoring of the results is continuous for minimum 12 months. Reduced emission of greenhouse gases and	Records of each enterprise/facility to the The Gambia Technical Training Institute  Reports of The Gambia Technical Training Institute  UNIDO project report.	There is sufficient interest from private sector and trainee technicians.  Certified trainees, as Support Service providers, are able to promote good practices regarding energy efficiency and sustainability in the refrigeration and air-conditioning sector.  The companies choose to proceed with improvement process and able to secure financing

	improved energy efficiency are verified.		
<b>Component 3: Awareness raising</b>			
<b>Outcome</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Demand for refrigerant systems with low global-warming potential that are more energy efficient than existing technologies is increased.	At least 20 firm inquiries indicating intent to use alternative refrigerants made to the Gambia Technical Training Institute and to the Support Service.	Report from the Gambia Technical Training Institute and from the Support Service: Companies indicate their interest towards the new technology.	Continuous support and participation from national authorities and companies.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
3.1 Lessons learnt and information on technology solutions is disseminated to policy makers, companies, and technicians. <sup>21</sup>	Written materials delivered to 15 policy-makers (disaggregated by gender).  Capacity perception index of 5 reached by the end of the project for targeted trainees <sup>22</sup>	Market survey at the end of the project: demand for replicating the technology in other sectors.  Monitoring reports on events and activities.	Assumes the ability to gain media attraction on the issues.  Continuous government support and participation.  Trainees value the information provided and are able to use it in their day-to-day activities.

<sup>21</sup> All awareness and capacity indicators will be collected disaggregated by gender

<sup>22</sup> A capacity perception index score of between 1 and 5 will be used, to assessed through a survey at the end of the project, disaggregated by gender as follows: 1. No capacity built; 2. Initial Awareness raised (e.g., workshops, seminars); 3. Substantial training in practical application (e.g. vocational training); 4. Knowledge effectively transferred (e.g. passing examination, certification); 5. Ability to apply or disseminate knowledge demonstrated.



**FINAL REPORT ON DEVELOPMENT OF PILOT PROPOSALS FOR POSSIBLE CO-FINANCING FOR HCFC ACTIVITIES, TO BE FUNDED AS RESOURCE MOBILIZATION ACTIVITIES**

<b>COUNTRY:</b>	Global
<b>PROJECT TITLE:</b>	Conversion of HCFC-22 Based Facilities to Ozone and Climate Friendly Alternatives in the Fishing / Food Processing (Servicing) Sectors
<b>SECTOR COVERED:</b>	Replacement of existing industrial Refrigeration installations
<b>TOTAL PROJECT COSTS:</b>	USD 200,000 (excluding support costs)

**69<sup>th</sup> ExCom Meeting**

## FINAL REPORT

### CLIMATE BENEFITS GENERATED UNDER THE HCFC-22 PHASE-OUT AND CLIMATE CO-BENEFITS

#### 1. BACKGROUND

In order to expand linkages between Hydrofluorochlorocarbons (HCFC) phase-out under the Montreal Protocol and other environmental issues, such as climate change and energy efficiency, the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol (MLF) approved funding for UNIDO to prepare two project proposals to identify potential sources of co-financing to cover costs that are not eligible under the Multilateral Fund but that could generate additional climate benefits from non eligible activities under the HCFC phase-out.

In order to find a programmatic approach to the matter and in order to identify a methodology to be replicated in all HCFC programmes in the future, UNIDO has focused on the GEF as a main funding source for these activities. Other sources of funds have also been considered and approached during project inception, such as bilateral and multilateral partners, as well as voluntary and compliance carbon markets. As it stands now, available resources and timing made the selection of the GEF as target institution as the best option for this exercise. Nonetheless, UNIDO is still very keen on engaging with partners such as the EU and bilateral development agencies, as there is a great potential of scaling up the activities and impact of this project.

The project proposals developed by UNIDO are consistent with the GEF's Climate Change Mitigation Objective 1 that targets "innovative technologies with potentially significant long-term impacts on carbon emissions", which may "involve the demonstration, deployment, and transfer of commercially available technologies that were identified as priorities by the recipient countries but have not been widely adopted in their particular markets."

The project concepts have already been presented informally to the GEF Secretariat. Moreover, two interim reports have been submitted to the Secretariat of the MLF on the occasion of the 66<sup>th</sup> and 67<sup>th</sup> Meetings of the Executive Committee and have been formally discussed.<sup>1</sup> Furthermore, a meeting was organized in June 2012 between the representatives of the MLF and the GEF Secretariats as well as UNIDO to discuss the proposed approach. Since then other informal discussions also took place between UNIDO and the GEF Secretariat and the feedbacks are still very positive: the GEF

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<sup>1</sup> The relevant reports can be retrieved here:

"Report on implementation of approved projects with specific reporting requirements."

<http://www.multilateralfund.org/66/English/1/6617.pdf>

"Status reports and compliance." <http://www.multilateralfund.org/67/English/1/6706.pdf>

Secretariat confirmed its interest in exploring the future prospects of this pioneer approach.

Moreover, UNIDO has also approved a total of USD 368,000 additional funds as in-kind and cash contributions for the pilot projects in the Gambia and Viet Nam.

The pilot projects have fostered the cooperation of various interested departments at UNIDO with the Montreal Protocol Branch, such as those involved in Agro-Industry, Trade and Capacity-Building and Green-Industry development. This has become a cross-cutting issue at UNIDO which may grow considerably in interest and investment in the next few years.

## **2. ALLOCATION OF RESOURCES PROVIDED BY THE MLF**

The total project fund allocated to UNIDO has been allocated and distributed to the following key components related directly to the project formulation activities. UNIDO would like to highlight that these funds did not cover UNIDO's administrative costs.

- International Experts (Consultants),
- National Experts (Consultants),
- Project Evaluation (Appraisal), and
- Travel (International and National)

Through the fund mobilization allocation, UNIDO was able to initiate a new approach of project, which did not exist in the past within the MLF framework. The funds allowed UNIDO to invest in experts both National as well as International, which conducted country surveys, technology assessments, market trends, energy saving assessments, legal policies and legislations, all in sectors which are not eligible under the Multilateral Fund but that could generate additional climate benefits from non eligible activities under the HCFC phase-out.

Through the funding, the development of the three projects has been successful, including the mobilization of additional funding from both GEF and other co-financing entities. Without the MLF's contribution these project could not have been materialized, as UNIDO does not have financial resources within its core budget to be allocated to similar activities.

In regards to the utilization of these funds, UNIDO considers them to be neither "additional transaction" nor "administrative cost". UNIDO clearly understands that it is not related to administrative costs as explained above. In UNIDO's view, we consider this funding mechanism as "funding for additional project formulation". With the understanding that these funds must be applied to projects aimed at achieving climate benefits from non-eligible activities under the HCFC phase-out.

Moreover, these funds are used differently from PRP funds, mainly because the funding for additional project formulation objective is to achieve approved projects:

- Which directly contribute to climate benefits from non-eligible activities under the HCFC phase-out, and
- With funding outside the MLF.

### **3. UNIDO APPROACH**

#### **3.1 DECISION PARAMETERS**

##### **3.1.1 TARGET SECTOR**

As per ExCom decision, UNIDO focused on the preparation of two project proposals for possible co-financing for HCFC activities, to be funded as resource mobilization. UNIDO looked in all sectors covered by the MLF and identified the servicing sector as one of the most critical one in terms of sustainability, diffusion and dimension. Keeping in mind the very limited grant provided by the MLF for servicing activities, UNIDO focused on finding a mechanism for promoting the conversion of the existing installations with low-GWP and energy efficient technologies. UNIDO identified the fishery as the most appropriate sector for designing the pilot projects, since most of the technologies used in Article 5 countries in the industrial refrigeration in the sector (cold stores, fish processing, handling and ice-making plants and freezing units of fishing vessels) are high carbon emitting and work with low energy efficiency. This is why substantial energy efficiency gain can be reached through the introduction of alternative refrigerants with low global-warming potential. In addition, given the importance of fishery in the industry of numerous Article 5 countries<sup>2</sup> as well as the importance of the cold chain in that specific industrial sector, the project concept provides great potential for replications. However, slight modifications and adaptations will be needed based on the specific local conditions.

##### **3.1.2 TARGET COUNTRIES**

The funding approved by the MLF for the preparation of project proposals allowed UNIDO to identify three pilot cases in existing industrial refrigeration installations. The target countries were selected according to the size of the country, the geographical region and the role of fishery in the national industry. The interest of the country in the

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<sup>2</sup> According to the Food and Agriculture Organization of the United Nations (Fisheries and Aquaculture in our Changing Climate Policy brief of the FAO for the UNFCCC COP-15 in Copenhagen, December 2009), directly or indirectly, the livelihood of over 500 million people in developing countries depends on fisheries and aquaculture.

pilot proposal and the potential national co-financing naturally also needed to be taken into account.

After mapping several possibilities and considering a broad range of operating conditions of facilities, as well as social, political and economic environments, the best sites for the pilot projects were identified in existing industrial refrigeration installations in Viet Nam, Morocco and the Gambia.

### **3.1.3 ALTERNATIVE TECHNOLOGIES**

As part of the project preparation, international experts were appointed to visit the sites and explore the best technical solutions for the conversion of existing industrial refrigeration installations, keeping in mind that alternatives to HCFC-based systems should be ozone and climate friendly with highest priority to natural refrigerants (whenever possible), as well as bring improved energy efficiency to the system. Therefore, the three project proposals has been designed to target two main goals with three different approaches: minimizing the emission of chemicals damaging the ozone layer (i.e. HCFC-22) and mitigating direct and indirect greenhouse gas emissions, thereby building synergies across global environmental conventions.

The three project proposals explore a range of refrigerants with low global-warming potential, including ammonia-brine systems, CO<sub>2</sub> in single as well as cascade systems as well as HC units, pioneer and unique in its kind for such application, along with reduction of leaks of ozone-depleting substances and implementation of energy efficiency solutions. The goal is to find the best choice of replacement technology with the best environmental performance and best cost effectiveness. Furthermore, capacity building activities are an integral part of the proposals, ensuring that the conditions are favorable for the replication and sustainability of the projects after its completion.

### **3.1.4 GEF AS A MAIN CO-FINANCING PARTNER**

UNIDO aimed at mapping and identifying potential donors and funding for leveraging additional sources for the pilot projects. In the first phase of this thorough examination beside GEF, mainly those institutions and organizations were considered, which currently support projects in the target countries. Finally, in order to find a programmatic approach to the matter and to identify a methodology to be replicated in all HCFC programmes in the future, the focus was shifted to the GEF as a main funding source for these activities. Furthermore, the solid in-house expertise with GEF projects both in the field of energy efficiency and in ODS phase-out in countries with economies in transition also played an important role in the decision.

## **3.2 THE THREE PILOT PROPOSALS**

### **3.2.1 Viet Nam**



The objective of the proposed project is to reduce greenhouse gas emissions by creating an enabling environment for the use of low global warming potential (GWP) alternatives in cold storage facilities in Viet Nam that currently consume HCFC-22 for servicing and maintenance purposes. The project as a whole will focus on synergies between the UNFCCC and the Montreal Protocol and will also reduce ODS emissions. To reach this objective, the project will use a synergistic combination of technical assistance on policy and regulation, technology transfer, capacity building and awareness-raising.

The proposed initiatives developed under this project will help inform companies worldwide who face the common problem of having to procure future-proof plants that are affordable to run. Instilling knowledge of new technologies through this proposed project will prepare the cold storage industry in Viet Nam to select the best technologies in the conversion away from HCFC-22 avoiding the introduction of high GWP replacements.

Equipment upgrades will greatly reduce the emission of ozone depleting substances (ODS) and greenhouse gases by replacing HCFC-22 with non-ODS refrigerants with very low global warming potentials. The proposed demonstration projects will serve as a pilot for the conversion of other cold storage facilities in Viet Nam and elsewhere in both the choice of technology and project parameters.

The project includes three components in order to promote the development of a market for alternative low GWP refrigerants in the cold storage sector:

- 1) Policy and regulatory support;
- 2) Technology transfer; and
- 3) Capacity building and awareness raising.

A GEF Medium Sized Project Proposal (MSP) has been developed for Viet Nam and is ready to be formally submitted for the GEF Secretariat's approval upon formal endorsement of all co-financiers involved in the project. The NOU of Viet Nam has formally endorsed the project concept.

The logical framework summarizing all outcomes and outputs of this project can be found in Annex 1.

### **3.2.2 The Gambia**

The proposed project for the Gambia aims to reduce greenhouse gas emissions associated with industrial refrigeration facilities by removing barriers to increased energy efficiency and establishing the enabling environment for the introduction of low global warming potential (GWP) alternatives to HCFC-22. The project will use a synergistic combination of technical assistance on policy and regulation, capacity

building and awareness-raising. The project will design and implement incentives to support the adoption of energy efficiency measures; and pilot innovative technical assistance delivery mechanisms.

It is expected that the policy and regulatory support, local energy service providers mechanism, and awareness and capacity development initiatives put in place under this project will help to prepare the market for the future selection and adoption of low GWP alternatives that operate both more efficiently and use chemicals with lower GWP, while minimizing the use of chemicals damaging to the ozone layer and ultimately improving productivity of the fisheries.

The initiatives developed under this project will help inform companies worldwide who face the common problem of having to procure future-proof plants that are affordable to run, especially for small or medium-scale industrial applications. Instilling better practices and knowledge through this proposed project will serve as the foundation for the growing refrigeration demand in The Gambia in the future and prepare this industry to select the best technologies for this market.

A synergistic approach is proposed to create a policy and regulatory environment conducive to the adoption of new technologies; develop mechanisms for technology transfer through the provision of targeted technical support mechanisms to identify energy efficiency measures and refrigerant options - including their economic viability - and incentive mechanisms for owners/operators to carry out improvements; and implement targeted capacity building and awareness initiatives.

The project has three expected outcomes associated with three Components to improve energy efficiency and reduce ozone depleting substances (ODS) emissions in the industrial refrigeration sector in The Gambia:

- 1) Policy and regulatory support
- 2) Technology transfer support
- 3) Capacity development and awareness-raising

A GEF Medium Sized Project Proposal (MSP) has been developed for the Gambia and is ready to be formally submitted for the GEF Secretariat's approval upon formal endorsement of all co-financiers involved in the project. The NOU of the Gambia has formally endorsed the project concept.

The logical framework summarizing all outcomes and outputs of this project can be found in Annex 2.

### **3.2.3 Morocco**

The objective of this project is to lay the foundations for long-term reductions in greenhouse gas and ozone depleting substance emissions by demonstrating a leapfrog

technology using alternative refrigerants in fishing vessels that currently consume HCFC-22 for servicing and maintenance purposes. The project will demonstrate the conversion of cold stores and freezing units of fishing vessels in Morocco from HCFC-22 which has a global warming potential (GWP) of 1700, to the low GWP refrigerants CO<sub>2</sub> and HFO-1234ze (GWP of 6). The project thereby demonstrates the worldwide potential of leapfrog technology for fishing vessels in particular, and for medium-scale industrial and commercial refrigeration in general, both of which are currently dependent on refrigerants with high GHG and ODS emissions.

As consistent with the CCM-1 focal area strategy, the project will: (1) demonstrate and deploy a high efficiency low GHG technology with significant replication potential worldwide; (2) develop policy tools and mechanisms to support the transfer of the technology; and (3) offset GHG emissions through demonstration and deployment projects. This will directly feed into the CCM-2 strategy by establishing appropriate policy, legal and regulatory frameworks and exploring sustainable financing and delivery mechanisms, leading to the direct reductions in GHG emissions.

The project will demonstrate the use of a cascade system of CO<sub>2</sub> and HFO-1234ze to eliminate the emissions of ODS, reduce GHG emissions and improve energy efficiency substantially in deep sea fishing vessels, where viable alternatives do not currently exist. Through a pilot demonstration of this emerging clean technology followed by initial technology deployment the project will lay the foundations for large-scale replication.

A GEF Full Sized Project Proposal (FSP) is planned to be developed for Morocco and is likely to be submitted for the GEF Secretariat's approval for the Sixth Replenishment Period (GEF-6) starting in 2014. Under the current project find, the related PIF will be developed.

#### **4. MLF REQUIREMENTS**

##### **4.1 ADDITIONALITY OF THE PROJECTS PROPOSED**

###### **4.1.1 Elimination of ODS**

The projects in Viet Nam, the Gambia and Morocco aim to replace HCFCs with non-ODS, low GWP alternatives, thereby eliminating the use of ODS for refrigeration. As a result of the implementation of the projects, the emission of ODS would decrease to zero.

The definition of additionality depends to the target donor. The UNFCCC's Clean Development Mechanism (CDM), for instance, determines a project to be "additional" "... if anthropogenic emissions of greenhouse gases by sources are reduced below those

that would have occurred in the absence of the proposed project”<sup>3</sup>. In other words, the project must demonstrate that a Business-As-Usual scenario would not result in the project taking place and there will be no emission reductions.

The CDM Board provided examples that demonstrate “additionality” for small scale projects, and advises project developers to “...identify the most relevant barrier and provide transparent and documented third party evidence such as national/international statistics, national/provincial policy and legislation, studies/surveys by independent agencies etc”. The CDM Board recently elaborated on the definition of “additionality” when relevant to developing projects within a Programme of Activities<sup>4</sup> which remains similar to the definition above. Tools have been developed by the UNFCCC to demonstrate and assess additionality<sup>5</sup>.

The CDM Board described a number of barriers to implementing the project, including those related to investment, financial (loan), technological and regulatory/policy instruments. In general, the project should demonstrate additionality by providing information that shows 1) there is no regulation or incentive scheme in place covering the project; or 2) the project is financially weak or not the least cost option; or 3) there is a country risk with the implementation of new technology in the country.

The proposed projects in Viet Nam, the Gambia and Morocco would comply with most of the criteria used in the CDM for “additionality”, even though compliance with only one of the criteria would be necessary to demonstrate “additionality”.

In regards to the additionality with respect to the GEF, the projects must comply with all GEF requirements of additionality, which is fully considered in each project proposal. For every project, the GEF requires a specific description of baseline of the project as well as proposed alternative scenario, with a description of expected outcomes and components of the project. In the process of project formulation, all ongoing GEF as well as MLF projects in the respective countries were taken into consideration in the baseline scenario, and the project itself was developed additionally to what would have happened in all other projects. Subsequently, incremental costs of the proposed alternative scenario are calculated based on the baseline. Details on GEF operation and incremental cost calculation are available at the following link: <http://www.thegef.org/gef/node/1890>.

When analyzing the additionality aspect from the point of view of Multilateral Fund projects, it is clear that this project is additional to the baseline scenario as it is targeting a sector with HCFC consumption, where the retrofit or replacement of refrigeration

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<sup>3</sup> UNFCCC. 2011. [CDM Methodology Booklet](#). Glossary [of Terms], p236. November 2011.

<sup>4</sup> UNFCCC. 2011. Standard for demonstration of additionality...for programme activities. [EB65 Annex 3](#).

<sup>5</sup> UNFCCC. 2012. Methodological tool for the demonstration and assessment of Additionality. Vers. 06.0.0. [EB65Report](#), Annex 21: 13pp.

units into low GWP alternatives is not eligible for funding. This project is additional to the usual activities under HPMPs because it assures that in the phase-out of HCFCs, the project will introduce low-GWP alternatives and promote energy savings from converting technologies in existing refrigeration installations. From the point of view of the MLF, this is an investment as projects will accelerate the phase-out of HCFCs before the set deadlines of the Montreal Protocol and at the same time guarantee that the project sites are leapfrogging the use of HFC and adopting low-GWP alternatives. This GEF project will establish a low GWP development path for cold storage facilities as opposed to the high GWP development path that might result if the HPMP were not accompanied by projects focusing on greenhouse gas emissions such as this one.

#### **4.1.2 Improvements in energy efficiency**

Energy efficiency improvements reduce the energy use per unit of activity. Because the cost of energy is increasing in many countries, there is an increasing interest in minimizing energy use and improving profitability. Electricity charges also play a major role in the control and running of cold stores in Viet Nam and the Gambia as operators try to limit the operation of their refrigeration plants to the lowest tariffs periods, and sometimes even over-ride the plant automatic controllers.

When demonstrating and assessing ‘additionality’ under the CDM, “... changing the technology with and without a change to the source of energy (including an energy efficiency improvement)” is one of four types of measures that are applicable for reducing greenhouse gas emissions. Therefore energy efficiency improvement is one of the core ‘additionality’ criteria for which measures have been developed, even though a ‘reduction in energy’ is grouped within the jargon of the CDM as ‘additional’.

The CDM has developed methodologies for projects that use steam, pump water, make silicon and ferro alloys, replace inefficient boilers for space heating, light bulbs, chillers, power plant turbines, domestic refrigerator production, and fuel switching in new buildings<sup>6</sup>. Elements in these methodologies would be applicable to additionality tests for projects involving energy efficiency improvements related to the replacement of HCFCs.

In order to quantify the reduction in GHG emissions (direct and indirect) as a result of the change to non-ODS, low GWP alternatives, UNIDO will need to accurately assess the reduction in energy consumption by undertaking an energy audit. This will require an examination of the electrical consumption of the building and equipment over a number of years. A register will need to be developed of the equipment and its operational time, when relevant its capacity and power estimates. The thermal characteristics of the buildings will need to be determined with k values determined for the existing and

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<sup>6</sup> UNFCCC. 2012. Approved large scale methodologies related to energy efficiency improvements: AM0017 (steam), AM0020 (water pumps), AM0038 (silicon and ferro alloys), AM0044 (boilers), AM0046 (light bulbs), AM0060 (chillers), AM0062 (power plant turbines), AM0070 (domestic refrigerator production), AM0091 (fuel switching in new buildings). [CDM Methodologies](#).

future insulation. Load profiles for the cold stores need to be examined over several months. It is important to draw up an Energy Balance for the building and its equipment, and to make sure that the 'balance closes' and that there are no 'unexplained' gaps in the supply and demand. This procedure needs to be standardized so that benchmarking can take place between the existing and other cold stores in the project sites.

## **4.2 TRANSPARENCY AND GOOD GOVERNANCE**

### **4.2.1 Transparency**

UNIDO has developed an Enterprise Resource Planning (ERP) system to improve transparency, information flow, efficiency and effectiveness<sup>7</sup>. ERP facilitates the flow of information between all business functions inside an organization and manage the connections to outside stakeholders. Built on a centralized database, ERP systems consolidate all business operations into a uniform and organization-wide system environment.

ERP provides an integrated suite of IT applications that, following best practice, support business processes and activities such as project management, human resource management, finance, procurement and other corporate core functions, both at Headquarters and the field. The implementation of an ERP system will deliver a fully transparent end-to-end process from identification of needs to achievement of project results i.e. the whole project cycle on one ERP platform; and it will share information without duplication, seamlessly connecting operations at Headquarters and field and across business functions and units.

ERP is part of UNIDO's Programme for Change and Organizational Renewal (PCOR) that aims to increase organizational efficiency and effectiveness by fundamentally changing UNIDO's way of doing business and, at the same time, promote a proactive work environment, organization-wide knowledge sharing, risk management and better results-based management to allow for consistent reporting of results to all stakeholders.

### **4.2.2 Good governance**

UNIDO has developed a primer<sup>8</sup> that provides information on good organization, management and governance practices for organizations that fulfill at least in part a public good role, and practical applications for providers of Resource Efficient and Cleaner Production (RECP) services in different regions. The guiding principles of this primer will be used throughout the implementation of the three pilot projects. Governance is defined as "... the processes and interactions by which the organization

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<sup>7</sup> UNIDO. 2012. What is ERP? [UNIDO website](#).

<sup>8</sup> UNIDO. 2010. Good organisation, management and governance practices: A primer for providers of services in Resource Efficient and Cleaner Production. [UNIDO](#).

engages and consults with its stakeholders and accounts for its achievements. Governance characterizes how things are decided and then realized within an organization, be it a government or a company. Governance determines how organizations are directed, administered or controlled”.

This primer developed by UNIDO and UNEP provides information on the role and composition of a board; procedures used to control, decide and govern; transparency and accountability; conflicts of interest; stakeholder engagement and external communication; operational management; financial management; other aspects.

At present there is no common agreement on how governance can be specifically applied to resource mobilization projects that are implemented for improvements in energy efficiency. UNIDO is willing to work with other agencies and the MLF to use rules and procedures that have been developed to track carbon offsets and other relevant programmes, such as establishing a board and advisory groups; setting boundaries on project eligibility and geographic restriction; defining what types of energy efficiency projects would be included; defining validation and verification procedures; defining the project approval process; establishing a registry; establishing rules to avoid double counting and accounting for energy efficiency reductions; and providing financial information on transaction costs.

#### **4.3 ASSURANCE THAT THESE PROJECTS WOULD AVOID PERVERSE INCENTIVES FOR COUNTRIES**

A perverse incentive is one that “... has an unintended and undesirable result which is contrary to the interests of the incentive makers”.

The funding of HFC-23 abatement as a by-product of HCFC-22 production is often used as an example of a “perverse incentive”. Although the CDM methodology contains a cap on HCFC-22 production eligible for crediting, the incentives from the CDM resulted in more HCFC-22 being produced (to generate HFC-23) than would have been produced without the CDM. Increased production of HCFCs was not intended by the Parties to the Montreal Protocol that agreed in 2007 to significantly accelerate the phase out of HCFCs<sup>9</sup>. As a result, the HFC-23 abatement projects have generated almost half of the Certified Emission Reductions generated under the CDM as the return on investment through the carbon market is 70-90 times more than the cost of destroying HFC-23. Since 2007, 19 HFC-23 abatement projects have been approved including eleven in China, five in India and one each in Argentina, Mexico and South Korea. Changes<sup>10</sup> to the

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<sup>9</sup> UNEP. 2007. Decision IXX/6: Adjustments to the Montreal Protocol with regard to Annex C, Group 1, substances (hydrochlorofluorocarbons). [Ozone Secretariat website](#).

<sup>10</sup> UNFCCC. 2011. Report of the 65<sup>th</sup> Meeting of the CDM Board. [Paragraph 86](#): Summary of changes to AM0001 methodology.

methodology<sup>11</sup> that were recently approved by the CDM Board with the aim of eliminating this perverse incentive are believed by some to be insufficient<sup>12</sup>.

The MLF, in establishing the Terms of Reference<sup>13</sup> for the audit of HCFC production in developing countries, aimed to determine if the high HCFC-22 production was driven either by the demand for feedstock for TFE/PTFE or refrigeration purposes, or for financial reward of the CDM credits. Tetrafluoroethylene, the direct reaction product of HCFC-22, is not just used to make PTFE polymer, but is also used to make HFC-125 which is one component of R410a. The audit was required to collect national and individual plant data, place them in the global context for a supply and demand analysis, and assess the impact of the CDM on an individual company, as well as on national and global situations.

#### **4.3.1 Other activities that might result in a perverse incentive**

There are concerns that carbon payments for destruction of ODS will result in virgin ODS being deliberately contaminated and then submitted for destruction. As the projects in Viet Nam, the Gambia and Morocco do not require destruction of the HCFCs, they might legitimately be placed on the market as recycled HCFCs that could be used for servicing of equipment. A perverse incentive related to destruction therefore is unlikely to eventuate.

#### **4.3.2 Organizational activities that guard against perverse incentives**

Unlike the CDM review process that failed to act in a timely manner to address deficiencies in the methodology that led to the perverse incentives associated with the production of HFC-23, the MLF has a number of procedures in place that make the likelihood of perverse incentives unlikely. The MLF activities that limit the liability of the Fund to perverse incentives include:

1. Timely project assessment and review through various MLF committees, most notably the ExCom. The ExCom routinely requests further information on a project as part of the process of deciding whether or not to fund the project;
2. Timely modification of the HPMP requirements to ensure appropriate action by Parties e.g. for all submissions from the 68th Meeting onwards, the MLF requires notification by the Party requesting funds for HPMP that an enforceable national system of licensing and quotas for HCFC imports and, where applicable, production and exports is in place and that the system is capable of ensuring the

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<sup>11</sup> UNFCCC. 2011. Approved baseline and monitoring methodology AM0001 “Decomposition of fluorocarbon (HFC-23) waste streams. Vers. 06.0.0. [Annex 10 of EB65](#).

<sup>12</sup> EIA. 2012. Response to call for public inputs on issues to be addressed in the CDM policy dialogue. [UNFCCC website](#).

<sup>13</sup> MLF. 2010. Terms of Reference for the Technical Audit of HCFC Production in Article 5 countries. UNEP/OzL.Pro/ExCom/60/54 Annex IX para 4.



- country's compliance with the Montreal Protocol HCFC phase-out schedule for the duration of this agreement<sup>14</sup>;
3. Projects for the conversion of HCFC-based manufacturing capacity installed after 21 September 2007 would not be considered. This restricts the quantity of HCFCs that would need to be phased out, in the event that some facilities are installed after this date. Since HCFC consumption has continued to increase after this date, it is reasonable to assume that in many countries additional facilities have been put in place for which the fund is not liable.
  4. The MLF reduces its liability for ODS phase out by operating at a country level.

In addition, it is important for the MLF establish a registry that contains the relevant details for projects that are co-financed with the MLF. Such a registry could be checked to reduce the risk of duplication of requests, or conversely that a single enterprise is not “double dipping” for funds from multiple sources.

In addition, it is important that the MLF does not specify eligibility criteria based on the minimum size of the cold store equipment, as those with smaller equipment may increase the size in order to comply with a the project criteria.

#### **4.3.3 Perverse incentives that could potentially reduce overall contribution to the MLF and instead be diverted to “voluntary contributions”**

As these GEF pilot projects fall exclusively under the focal area of the GEF “Climate Change Mitigation,” global environmental benefits of projects are calculated in terms of quantity of tons of CO<sub>2</sub> equivalent mitigated, rather than ozone depleting potential (ODP). The mandate of the GEF is not to reduce the consumption of ozone-depleting substances in Article 5 countries, therefore, the amount of ODP reduced cannot be an outcome indicator, which means donors may not claim directly protecting the ozone layer by a specific amount through GEF projects.

This means that the GEF itself as well as its donors are focusing on the climate change benefits of the project, and ozone as well as other environmental benefits come as value added of climate change projects. The scope of GEF projects is very broad and comprehensive and donors welcome cross-cutting issues rather than see it as an incentive to cut contributions elsewhere. Besides the protection of the ozone layer, for instance, projects targeting the fishing industry also have a positive impact on biodiversity, as improving refrigeration practices help optimize resources throughout the value chain and therefore help to reduce the pressure on fisheries resources and contribute to conservation of fisheries biodiversity. The same rationale would apply to other funding sources like the GEF.

#### **4.4 ENSURING SUSTAINABILITY OF THE PROJECTS PROPOSED**

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<sup>14</sup> MLF. 2011. UNEP/OzL.Pro/ExCom/63/60, Decision 63/17 para 71

The projects aim at identifying the best technology options for replacing HCFC-22-based industrial refrigeration facilities in different sectors, climates and environments. Pilot conversions will enable generating experiences on the adoption of low-environmental impact technologies in the conversion of existing industrial refrigeration installations, including cost for conversion and assessment of climate benefits. The projects will provide information on most suitable financial mechanisms to leverage additional funds to promote the conversion of the remaining similar industrial refrigeration installations, including fishing vessels.

From the implementation of the approved pilot cases, UNIDO's ultimate goal is to gain experience and expertise that can be used to better assist various countries in developing their national strategy for the HCFC-22 phase-out in the fishing / food processing sectors.

Besides the above mentioned, the demonstrated willingness of the potential partners gives the promise of a successful cooperation for sustainable project outcomes.

Therefore, UNIDO sees the need for sustaining similar activities. However, the main concern would be the means of financing the direct project formulation costs. UNIDO has highlighted before that this project does not relate to core unit cost and therefore, should remain as a stand-alone approach. UNIDO would stand ready to review any suggestions put forward in regards to the establishment of an additional funding source with the main function to provide recourse mobilization within the framework of the of attracting other donors or co-financers for projects, which directly contribute to climate benefits from non eligible activities under the HCFC phase-out.

#### **4.5 AVOIDANCE OF DUPLICATION OF SIMILAR PROJECTS**

The term double counting can refer to Double Monetization which occurs when a singular GHG emission reduction or removal is monetized once as a GHG credit and a second time as a GHG allowance<sup>15</sup>.

Rules have been developed to guard against both eventualities in all reputable protocol standards that have been developed to track carbon offsets<sup>16</sup>. Similar rules could be adopted in the MLF's resource mobilization projects to guard against programme participants making multiple claims for financial support for the same project. GHG programmes can address this through oversight procedures such as a registry that could be developed for resource mobilization projects.

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<sup>15</sup> VCS. 2012. Double counting: Clarification of the rules. [VCS 1 February 2012](#).

<sup>16</sup> 3Degrees. 2011. [Carbon Protocols, standards and registries: Climate Action Reserve; Clean Development Mechanism; Good Standard Foundation; Verified Carbon Standard; Chicago Climate Exchange \(CCX\)](#).

All GHG programmes must address double counting of GHG emission reductions and removals to ensure environmental integrity. Duplication of projects has been an issue in projects in the Kyoto Protocol, the EU Emissions Trading Scheme and the Voluntary Carbon Market that have the potential to claim the same greenhouse gas credits more than once. GEF projects are no different.

GEF projects should always outline the existence of similar projects in the relevant region and country in the baseline scenario in order to assess how existing projects interfere/interact with the proposed project. This is to avoid the duplication of similar projects and double counting of GHG emission reductions as well as assure additionality of the proposed alternative scenario.

Moreover, the proposed GEF projects will be implemented parallel to stage I of the HPMP and thus prior to stage II of the HPMP. Hence, this project will be incremental to the limited number of activities affecting the cold storage sector that are included in the HPMP stage I and will set the baseline for the HPMP stage II, therefore avoiding double-counting. Although stage II for most of the countries is foreseen to cover the servicing sector in a robust manner, the aim of the HPMP is only the reduction of ODS emissions and it does not deal with greenhouse gas emissions. This GEF project will establish a low GWP development path for cold storage facilities as opposed to the high GWP development path that might result if the HPMP were not accompanied by projects focusing on greenhouse gas emissions such as this one.

Furthermore, before the development of a GEF proposal and in line with the ExCom Decision 63/23, UNIDO addressed the issue of the nature and scope of project to other implementing agencies of the Multilateral Fund requesting verification through official communication on the existence of projects which target the same sectors (fishing / food processing (servicing) sectors).

#### **4.6 INFORMATION ON TRANSACTION COSTS**

UNIDO does not plan to apply for carbon finance for the resource mobilization projects that achieve energy reductions as a result of upgrading the technology. Therefore, UNIDO does not believe that transaction costs are applicable at this time.

### **5. LESSONS LEARNED**

#### **5.1 LINKAGES WITH CHILLER PROJECTS**

##### **4.1.1 Lessons Learned**

A “Desk Study on The Evaluation Of Chiller Projects”<sup>17</sup> has been circulated during the 68th Meeting of the Executive Committee. UNIDO has noted all lessons learned from the desk study and will take them into account in the process of project implementation.

UNIDO has especially taken into consideration that different methodologies and replacement schemes, with a high degree of flexibility, are necessary to adapt a programme to the needs in different countries where markedly different local conditions prevail. This is already reflected in two of the pilot cases. In Viet Nam, a deal has been agreed with the Vietnamese Environmental Protection Fund to provide with soft loans for facility owners. In the Gambia, a revolving fund will be established with the Ministry of Environment.

UNIDO has also noted that co-financing with the GEF has proven to be a key partnership in chiller projects. However, the necessity of synchronizing two major funding sources, the Multilateral Fund and the GEF, can introduce a two to three year project delays but ultimately can create revenue streams that encourage national engagement. Additional high-level meetings between the two should be arranged in order to settle both issues.

The Regional African Chiller project was UNIDO’s first attempt to mobilize additional funds through the phase-out of ODSs. The chiller project aims at promoting energy efficient replacements of CFC-based chillers by offering the replacement of 30 chillers in six African countries. The project attempts to remove the barriers to chiller replacement by illustrating a financial and institutional mechanism able to support chiller replacements while making use of and building on existing instruments within the energy market. A full report on the African Chiller Project will be submitted to the 70<sup>th</sup> Meeting of the Executive Committee of the MLF.

Through chiller project, different financial mechanisms were established in different countries. In Egypt, for instance, a scheme with the National Bank of Egypt was established for the provision of soft loans for companies interested in replacing their old chillers while, in Cameroon, a revolving fund was put in place. Such schemes are necessary, especially in Africa, because beneficiaries do not have the means to give up-front payments for new chillers and in order to ensure the sustainability of the project. This also applies for this project replacing HCFC-based systems. As mentioned, in order to produce sustainable incentives for natural refrigerants, similar schemes must also be put in place. In Viet Nam, soft loans for companies will be facilitated through the Vietnamese Environmental Protection Fund. In the Gambia, a revolving fund will be established.

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<sup>17</sup> “Desk study on the evaluation of chiller projects.”  
<http://www.multilateralfund.org/68/English/1/6810.pdf>

The chiller project serves as valuable experience in building trust between different stakeholders in the private and public sector. In Africa, it has become evident that it is difficult to maintain a sustainable relationship between banks, companies and the government due to the lack of transparency. The chiller project is therefore an example of how to foster cooperation amongst partners in order to achieve a sustainable solution. This will be the case for all three pilot projects currently being developed, as well as future ones. UNIDO shall take the experience from the chiller projects into consideration when developing financial mechanisms for the replacement of HCFC-based systems.

#### **4.1.2 New Approach**

Although the two pilot projects (i.e. resource mobilization and chiller programme) are in principle similar, there are limitations in terms of lessons learned. It was necessary e.g. to develop a new approach towards partners and co-financiers: in the chiller project, most of the mobilized funds come from beneficiary companies, since it is a one-time approach. On the other hand, when addressing the issue of HCFC-based systems, a one-time approach is not sufficient to tackle the problem, and a programmatic method should be developed. That is why UNIDO is focusing on the GEF as a partner for these three pilot projects in Viet Nam, the Gambia and Morocco. Upon the successful completion of these projects, it is expected that similar concepts could be developed to replace HCFC-based systems, to be extended also to different sectors and countries.

## **5.2 GEF PROJECT DESIGN AND DEVELOPMENT**

### **4.2.1 GEF Star Allocation and Competition For Funds**

The STAR is a short name of the System for Transparent Allocation of Resources. With the STAR, the GEF Secretariat allocates resources in an indicative way to its eligible countries in a replenishment period. In the fifth replenishment period of the GEF (GEF-5), the STAR covers three focal areas: biodiversity (BD), climate change (CC), and land degradation (LD).<sup>18</sup> Although this system gives predictability of funding and flexibility in programming for eligible countries, it also restrains implementing agencies in terms of potential projects, as they are subject to competition for funds.

With the STAR system, availability of funds depends greatly on:

- Country;
- Number of GEF implementing agencies in the country;
- Allocation of funds for each focal area and number of similar projects;
- Project size;
- Timing.

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<sup>18</sup> [http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF\\_STAR\\_A4\\_april11\\_CRA.pdf](http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF_STAR_A4_april11_CRA.pdf)

In the case of the three pilot cases, availability of GEF funds was limited as this initiative came about quite late into the fifth replenishment period. Usually, in order to ensure greater availability of funds, implementing agencies should try to have projects approved early in the GEF cycle. In the case of Viet Nam, for instance, GEF funds had to be cut down from planned USD 900,000 to approximately USD 300,000 due to stark competition for funds. For Morocco, the proposed project had to be postponed because funds were no longer available for climate change projects under GEF 5. The GEF focal point also expressed the preference of the country towards Full Sized Projects (over USD 2 Mio GEF contribution), therefore UNIDO must wait until the next cycle in order to apply for GEF funds in Morocco. For future projects, concepts should be developed well in advance so that funds can be secured for planned activities.

#### **4.2.2 The GEF Approach**

The GEF approach in regards to project design and development is a very holistic one, which involves the engagement of several counterparts, co-financiers prior to project approval. It also requires a broader approach to project impact, including several aspects besides the targeted focal area such as socioeconomic benefits. Below the characteristics of this approach which are the most striking when compared to the development of MLF-funded projects:

a) Co-financing

Developing a GEF project requires intensive exchange with the host government and potential donors/co-financiers. This includes defining modalities of cooperation, activities and co-financing schemes.

b) Project Endorsement Process

Prior to formal submission of a project to the GEF Secretariat, an endorsement letter is required from the GEF Operational Focal Point<sup>19</sup> and from all the co-financiers. This procedure, depending on the national routine, can take more than six months.

c) Socioeconomic benefits

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<sup>19</sup> The GEF Focal Points play a critical coordination role regarding GEF matters at country level as well as serving as the liaison with the GEF Secretariat and Implementing Agencies. The GEF Political Focal Points are concerned primarily with issues related to GEF governance, including policies and decisions, as well as relations between member countries and the GEF Council and Assembly. The GEF Operational Focal Points are concerned with the operational aspects of GEF activities, such as endorsing project proposals to affirm that they are consistent with national plans and priorities and facilitating GEF coordination, integration, and consultation at country level.

Besides promoting integrated approaches that tap the potential for synergies across global environmental issues and ensure that resources and capacity build are best utilized, GEF strongly requires the delivery and monitoring of socioeconomic benefits at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits.

In order to strengthen the gender mainstreaming argumentation in UNIDO's two proposal, extensive consultations took place with UNIDO's Gender Focal Point and the project documents were adjusted accordingly.

## **6. CONCLUSIONS**

In the selection of alternative technologies to replace ODSs, energy efficiency has always been taken into account at UNIDO. However, in the recent years, the introduction of low GWP and high energy efficiency alternatives has gained even higher attention to achieve additional climate benefits in the ODS phase-out process. UNIDO is constantly looking into the assessment of climate impacts of the MP activities, including the application of the Multilateral Fund Climate Impact Indicator (MCII) and the GEF Tracking Tool for Climate Change Mitigation Projects. Recognizing the increasing importance of the subject, staff members regularly participate in trainings and related events.

While developing the three pilot projects, it has also become evident that on the country level it would be also necessary to raise awareness, since it is still not fully clear to NOUs how to mobilize additional funds based on climate benefits generated through the phase-out of HCFCs. This happens because the MLF mechanism is a very specific one, and usually NOUs are not exposed to other environmental financial mechanisms. It is, therefore, of paramount importance that NOUs receive training on GEF mechanisms, as well as others, in order to appreciate the differences between MLF and the GEF. This would allow them to facilitate the dialogue with GEF focal points and substantially contribute to project development.

Given its pioneer nature, the present exercise has been a challenge for UNIDO. The brainstorming, the process of exploring the potential co-financing sources, the selection of the target countries, the information and knowledge sharing with the other technical branches of UNIDO all helped our team to have a better understanding on the complex issue of generating climate co-benefits. Furthermore, UNIDO has been working out mechanisms to strengthen the synergies and cooperation with other branches in-house dealing with climate change and energy efficiency, which promises interesting opportunities for the future.

Future Montreal Protocol projects at UNIDO will definitely benefit from the broader perspective gained through the preparation of this exercise.



## ANNEX 1: PROJECT RESULTS FRAMEWORK – VIET NAM

<b>Project Narrative</b>	<b>Indicator</b>	<b>Sources of Verification</b>	
<b>Project Objective</b> Reduction of greenhouse gas emission in the cold storage sector in Viet Nam.	<i>Direct emission reduction:</i> Direct emissions reduction of 20,000 tonnes of CO <sub>2</sub> equivalent (with the elimination of HCFC-22, with global-warming potential of 1,810) <i>Indirect emission reduction:</i> GEF bottom-up methodology – Indirect emissions reduction of 81,000 tonnes of CO <sub>2</sub> equivalent through all the activities GEF top-down methodology – 117,000 tonnes of CO <sub>2</sub> equivalent through all the activities	Reports from MONRE during and after the duration of the project.	
<b>Component 1: Policy and Regulatory Support</b>			
<b>Outcome</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Policy, regulatory and legal measures are adopted by the government to support the adoption of low global-warming potential and energy efficient technology.	Number of national policies changed or adopted in favour of the use of alternative technologies with low global-warming potential.	Public records such as government websites and publications in the national gazette.	Assumes no radical shifts in Government priorities.
<b>Outputs</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
1.1 Gap analysis carried out in the national policy, legal and regulatory frameworks.  1.2 Relevant recommendations drafted into	Availability of gap analysis report.  Number of laws/regulations/guidance (new or amended) in favour of	Project progress report  UNIDO project progress report.	Continuous government support and participation.

the national laws/regulations/guidance.	low global-warming technologies promulgated.		
<b>Component 2: Technology Transfer</b>			
<b>Outcome</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Technology with low global-warming potential (hydrocarbon system) is demonstrated, replicated and deployed.	Up to 20,000 tonnes of CO <sub>2</sub> emission reduced, by enterprise/facility  Energy efficiency gain in percentage, by enterprise/facility  Technicians of 12 enterprises/facilities reported that they can operate the new technology independently	Records of each enterprise/facility to the National Cleaner Production Centre  Validation reports from MONRE  Reports from the Viet Nam Environmental Protection Fund (VEPF).	The companies want and can proceed with the conversion process.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
2.1 Two pilot demonstration conversions are carried out: 2 cold storage facilities converted from HCFC-22 use to hydrocarbon systems.	Technology designs are available what time of equipment are installed  No of. technicians from each facility are trained	Records of each enterprise/facility to MONRE  Validation reports from MONRE  Reports of the Viet Nam Environmental Protection Fund	The initial two pilot projects are successful.  There is sufficient interest from private sector and trainee technicians.  The companies are able to use and
2.2 The demonstration			

conversions are replicated in up to 10 facilities.	(disaggregated by gender)  Monitoring of the results is continuous for minimum 12 months. Reduced emission of greenhouse gases and improved energy efficiency are verified.  Up to 900,000 USD from the Viet Nam Environmental Protection Fund will cover the costs from the new equipment in these 10 companies.	(VEPF).  UNIDO project report.	maintain the new technology.  Trainees value the information provided and are able to use it in their day to day activities.
<b>Component 3: Awareness raising</b>			
<b>Outcome</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Demand for low-GWP refrigerant systems that are more energy efficient than existing technologies is increased.	At least 20 firm inquiries indicating intent to use alternative refrigerants made to MONRE	Report from MONRE indicates their interest towards the technology.	Continuous support and participation from national authorities and companies.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>

<p>3.1 Lessons learnt and information on technology solutions is disseminated to policy makers, companies, and technicians.<sup>20</sup></p>	<p>Written materials delivered to 50 policy-makers by month 18 (disaggregated by gender).</p> <p>Up to 10 bilateral meetings carried out by month 24.</p> <p>Up to 100 attendees at stakeholder meeting (disaggregated by gender)</p>	<p>Market survey at the end of the project: demand for replicating the technology in other sectors.</p> <p>Monitoring reports on events and activities.</p>	<p>Assumes the ability to gain media attraction on the issues.</p> <p>Continuous government support and participation.</p>
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<sup>20</sup> All awareness and capacity indicators will be collected disaggregated by gender

## ANNEX 2: PROJECT RESULTS FRAMEWORK – THE GAMBIA

Project Narrative	Indicator	Sources of Verification	
<p><b>Project Objective</b></p> <p>Reduction of greenhouse gas emission associated with industrial refrigeration and air-conditioning facilities in The Gambia</p>	<p><i>Direct emission reduction:</i> Direct emissions reduction of 56,000 tonnes of CO<sub>2</sub> equivalent through all the activities (elimination of the use of HCFC-22, with GWP of 1,810, and improved energy efficiency)</p> <p><i>Indirect emission reduction:</i> - GEF bottom-up methodology Indirect emissions reduction of 222,000 tonnes of CO<sub>2</sub> equivalent through all the activities - GEF top-down methodology 432,000 tonnes of CO<sub>2</sub> equivalent through all the activities</p>	<p>Reports from the National Ozone Unit and The Gambia Technical Training Institute during and after the duration of the project.</p>	
<b>Component 1: Policy and Regulatory Support</b>			
Outcome	Indicator	Sources of Verification	Assumptions/Risks (see section 4)
<p>Policy, regulatory and legal measures are adopted by the government to support the adoption of low global-warming potential and energy efficient technology.</p>	<p>Number of national policies changed or adopted in favour of the use of alternative technologies with low global-warming potential.</p>	<p>Public records such as government websites and publications in the national gazette.</p>	<p>Assumes no radical shifts in Government priorities.</p>
Outputs	Indicator	Sources of Verification	Assumptions/Risks (see section 4)
<p>1.1 Gap analysis carried out in the national policy, legal and regulatory frameworks.</p> <p>1.2 Relevant recommendations drafted into</p>	<p>Availability of gap analysis report.</p> <p>Number of laws/regulations/guidance (new or amended) in favour of</p>	<p>Project progress report</p> <p>UNIDO project progress report.</p>	<p>Continuous government support and participation.</p>

the national laws/regulations/guidance.	low global-warming technologies promulgated.		
<b>Component 2: Technology Transfer</b>			
<b>Outcome</b>	<b>Indicator</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Technical and financial support on replacement refrigerants, and reducing greenhouse gas emissions and operational costs, is ensured.	Up to 56,000 tonnes of CO <sub>2</sub> equivalent emission reduced  Energy efficiency gain in percentage, by enterprise/facility  Up to 60 facilities involved in interventions of various scales	Records of each enterprise/facility to the National Ozone Unit and to The Gambia Technical Training Institute  Validation reports from The Gambia Technical Training Institute	The pilot demonstration systems with low global-warming potential refrigerants installed.  The companies want and can proceed with the conversion process.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
2.1 Refrigeration and air-conditioning support mechanisms established and piloted  2.2 Incentive Mechanism piloted	Up to 20 Support Service providers certified through course given at the training institute (disaggregated by gender)  Over 30 interventions supported through the Incentive Mechanism  Monitoring of the results is continuous for minimum 12 months. Reduced emission of greenhouse gases and	Records of each enterprise/facility to the The Gambia Technical Training Institute  Reports of The Gambia Technical Training Institute  UNIDO project report.	There is sufficient interest from private sector and trainee technicians.  Certified trainees, as Support Service providers, are able to promote good practices regarding energy efficiency and sustainability in the refrigeration and air-conditioning sector.  The companies choose to proceed with improvement process and able to secure financing

	improved energy efficiency are verified.		
<b>Component 3: Awareness raising</b>			
<b>Outcome</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
Demand for refrigerant systems with low global-warming potential that are more energy efficient than existing technologies is increased.	At least 20 firm inquiries indicating intent to use alternative refrigerants made to the Gambia Technical Training Institute and to the Support Service.	Report from the Gambia Technical Training Institute and from the Support Service: Companies indicate their interest towards the new technology.	Continuous support and participation from national authorities and companies.
<b>Outputs</b>	<b>Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions/Risks (see section 4)</b>
3.1 Lessons learnt and information on technology solutions is disseminated to policy makers, companies, and technicians. <sup>21</sup>	Written materials delivered to 15 policy-makers (disaggregated by gender).  Capacity perception index of 5 reached by the end of the project for targeted trainees <sup>22</sup>	Market survey at the end of the project: demand for replicating the technology in other sectors.  Monitoring reports on events and activities.	Assumes the ability to gain media attraction on the issues.  Continuous government support and participation.  Trainees value the information provided and are able to use it in their day-to-day activities.

<sup>21</sup> All awareness and capacity indicators will be collected disaggregated by gender

<sup>22</sup> A capacity perception index score of between 1 and 5 will be used, to assessed through a survey at the end of the project, disaggregated by gender as follows: 1. No capacity built; 2. Initial Awareness raised (e.g., workshops, seminars); 3. Substantial training in practical application (e.g. vocational training); 4. Knowledge effectively transferred (e.g. passing examination, certification); 5. Ability to apply or disseminate knowledge demonstrated.