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COMITÉ EJECUTIVO DEL FONDO MULTILATERAL
PARA LA APLICACIÓN DEL
PROTOCOLO DE MONTREAL
Quincuagésima novena Reunión
Port Ghalib, Egipto, 10 al 14 de noviembre de 2009

ENMIENDA AL PROGRAMA DE TRABAJO DE LA ONUDI PARA EL AÑO 2009

OBSERVACIONES Y RECOMENDACIONES DE LA SECRETARÍA DEL FONDO

1. La ONUDI solicita al Comité Ejecutivo la aprobación de 1 898 031 $EUA para implementar la Enmienda de su Programa de Trabajo para 2009, más costos de apoyo por un monto de 142 352 $EUA para el organismo.

2. Las actividades que se proponen para la Enmienda del Programa de Trabajo de la ONUDI se recogen en la Tabla 1 que sigue:

Tabla 1: Enmienda al Programa de Trabajo de la ONUDI

País	Actividad/Proyecto	Monto solicitado ($EUA)	Monto recomendado ($EUA)
SECCIÓN A: ACTIVIDADES CUYA APROBACIÓN GENERAL SE RECOMIENDA			
A1. Renovación de proyectos de fortalecimiento institucional:			
Jamahiriya Árabe Libia (la)	Fortalecimiento institucional (Fase II)	73 702	73 702
Serbia	Fortalecimiento institucional (Fase III)	71 121	71 121
	Subtotal de A1:	144 823	144 823
A2. Preparación de proyecto adicional de Planes de gestión de eliminación definitiva de hidroclorofluorocarbonos (HCFC):			
Ecuador (el)	Fondo adicional para planes de gestión de eliminación definitiva de HCFC	75 000	75 000[1]
Iraq (el)	Fondo adicional para planes de gestión de eliminación definitiva de HCFC	65 000	65 000
Pakistán (el)	Fondo adicional para planes de gestión de eliminación definitiva de HCFC	45 000	45 000
Sudan (el)	Fondo adicional para planes de gestión de eliminación definitiva de HCFC	120 000	120 000
	Subtotal de A2:	305 000	305 000
A3. Preparación de proyecto del Plan de gestión de eliminación definitiva de HCFC (componente de inversión):			
Argelia	Preparación de proyecto para actividades de inversión en los sectores de fabricación de equipos de acondicionamiento de aire y de espumas	100 000	100 000
Pakistán (el)	Preparación de proyecto para actividades de inversión en los sectores de equipos de refrigeración y de espumas	200 000	200 000
Filipinas	Preparación de proyecto para actividades de inversión en el sector de espumas	70 000	70 000
Sudáfrica	Preparación de proyecto para actividades de inversión en el sector de espumas	150 000	150 000
Sudan (el)	Preparación de proyecto para actividades de inversión en los sectores de fabricación de equipos de acondicionamiento de aire y de espumas	100 000	100 000
	Subtotal de A3:	620 000	620 000
SECCIÓN B: ACTIVIDADES CUYA CONSIDERACIÓN INDIVIDUAL SE RECOMIENDA			
B.1 Renovación de proyectos de fortalecimiento institucional:			
Qatar	Fortalecimiento institucional (Fase III)	48 208	*
	Subtotal de B1:	48 208	
B.2 Preparación de proyectos de demostración sobre los HCFC			
China	Proyecto de demostración de tecnología para agentes bituminosos espumantes en el sector de poliestireno extruido	30 000	[2]
	Subtotal de B2:	30 000	

B3. Preparación de proyectos piloto para la eliminación de SAO:			
Argelia	Preparación de proyectos piloto para la eliminación de SAO	85 000	*
Camerún (el)	Preparación de proyectos piloto para la eliminación de SAO	40 000	[2]
China	Preparación de proyectos piloto para la eliminación de SAO	85 000	*
Egipto	Preparación de proyectos piloto para la eliminación de SAO	60 000	[2]
Irán (República Islámica del)	Preparación de proyectos piloto para la eliminación de SAO	60 000	[2]
Nigeria	Preparación de proyectos piloto para la eliminación de SAO	60 000	[2]
República Árabe Siria (la)	Preparación de proyectos piloto para la eliminación de SAO	60 000	[2]
	Subtotal de B3:	450 000	
B4. Asistencia técnica:			
Mundial	Movilización de recursos para abordar los cobeneficios climáticos en la eliminación de HCFC	300 000	*
	Subtotal de B4	300 000	
Total parcial de las secciones A y B:		1 898 031	1 069 823
Costos de apoyo al organismo: (7,5 por ciento para la preparación del proyecto y fortalecimiento institucional y otras actividades de más de $EUA 250.000 y 9 por ciento para otras actividades de menos de $EUA 250.000):		142 352	80 236
Total:		2 040 383	1 150 059

*Proyecto pendiente o de consideración individual
[1] Examinado en el documento UNEP/OzL.Pro/ExCom/59/4
[2] Examinado en el documento UNEP/OzL.Pro/ExCom/59/11

SECCIÓN A: ACTIVIDADES CUYA APROBACIÓN GENERAL SE RECOMIENDA

A1. Renovación de proyectos de fortalecimiento institucional:

a) Jamahiriya Árabe Libia (la) (Fase II): 73 702 $EUA
b) Serbia (Fase III): 71 121 $EUA

Descripción del Proyecto

3. La ONUDI solicitó la renovación de los proyectos de fortalecimiento institucional para los dos países indicados *supra*. Las descripciones de las solicitudes de tales países se recoge en el Anexo I del presente documento.

Observaciones de la Secretaría

4. La Secretaría del Fondo examinó los planes de acción y los informes definitivos sobre fortalecimiento institucional que el organismo presentó en nombre de los países antedichos con vistas a renovar las solicitudes y consideró que los informes están en orden y en consonancia con las prescripciones.

5. Al examinar estos proyectos, la Secretaría tuvo en cuenta la decisión 57/36 b) por la que el Comité decidió "seguir financiando las solicitudes de proyectos de fortalecimiento institucional hasta fines de diciembre de 2010, con los niveles actuales, a la espera de que el Comité Ejecutivo adopte en su 58ª Reunión una resolución final sobre el asunto". El Comité Ejecutivo lo reitero en su decisión 58/16 de la 58ª Reunión, por la que decidió "aprobar las renovaciones de los proyectos de fortalecimiento institucional hasta el 31 de diciembre de 2010". Habida cuenta de tales decisiones, la financiación recomendada para las renovaciones de fortalecimiento institucional se calculó a prorrateo hasta diciembre de 2010 solamente.

Recomendaciones de la Secretaría

6. La Secretaría del Fondo recomienda la aprobación general de las solicitudes de renovación de los fondos de financiación de fortalecimiento institucional para Jamahiriya Árabe Libia (la) y Serbia al nivel indicado en la Tabla 1 del presente documento. El Comité Ejecutivo puede estimar oportuno señalar a la atención de los Gobiernos de estos países las observaciones que figuran en el Anexo II del presente documento.

A2. Preparación de proyecto adicional de Planes de gestión de eliminación definitiva de hidroclorofluorocarbonos (HCFC):

Iraq (el): financiación adicional para la preparación de Planes de gestión de eliminación definitiva de hidroclorofluorocarbonos: 65 000 $EUA
Pakistán (el): financiación adicional para la preparación de Planes de gestión de eliminación definitiva de hidroclorofluorocarbonos: 45 000 $EUA
Sudán (el): financiación adicional para la preparación de Planes de gestión de eliminación definitiva de hidroclorofluorocarbonos: 120 000 $EUA

Descripción del Proyecto

7. La ONUDI solicitó fondos adicionales para la preparación de proyectos por valor de 65 000 $EUA para Iraq (el), 45 000 $EUA para Pakistán (el) y 120 000 $EUA para Sudán (el), cuyos fondos para la preparación de planes de gestión de eliminación definitiva de HCFC se aprobaron en la 55ª Reunión. Las solicitudes se presentan habida cuenta de que los tres países notificaron los datos prescritos en virtud del Artículo 7 para 2007, indicando el nivel de consumo de HCFC, por lo que, en virtud de lo prescrito en la decisión 56/16, pueden aspirar a recibir fondos para la preparación de proyectos adicionales de Planes de gestión de eliminación definitiva de HCFC.

Observaciones de la Secretaría

8. La Secretaría toma nota de que estas presentaciones están en consonancia con la decisión 56/16, por la que se estipula que los países son elegibles para recibir financiación destinada a la preparación de planes de gestión de eliminación definitiva de HCFC en función de los datos oficiales que presenten para 2007 en cumplimiento de lo prescrito en el Artículo 7. En los casos de Sudán (el) y de Iraq (el), ambos países recibieron 30 000 $EUA en la 55ª Reunión, al no haber presentado aún en las fechas de celebración de dicha reunión sus datos oficiales sobre el consumo de HCFC, por lo que quedaron clasificados como países sin datos sobre el consumo de hidroclorofluorocarbonos. Sus datos de consumo de HCFC para 2007 conexos al Artículo 7 indican que son elegibles para recibir fondos adicionales en virtud de la decisión 56/16.

9. En el caso de Pakistán (el), el país ya recibió de la 55ª Reunión una financiación fundamentada en su consumo de HCFC por valor de 150 000 $EUA. Desde aquellas fechas, Pakistán (el) ha revisado sus datos para 2007, por lo que solicita un monto adicional de 45 000 $EUA , dado que los datos notificados sobre el consumo de HCFC hacen elegible al país para recibir fondos adicionales en virtud de lo prescrito en la decisión 56/16. Los datos que estos tres países notificaron para 2007 en cumplimiento del Artículo 7 respaldan tales solicitudes, como se recoge seguidamente:

País	Consumo de HCFC (2007) notificado en virtud del Artículo 7 (toneladas PAO)		
	HCFC-22	HCFC-141b	Total
La República del Iraq	106,6	2,8	109,4
La República de Pakistán	116,25	67,43	183,7
La República de Sudan	2,64	6,16	8,8

Recomendaciones de la Secretaría

10. La Secretaría del Fondo recomienda la aprobación general de las solicitudes de financiación adicional para la preparación de Planes de gestión de eliminación definitiva de HCFC para Iraq (el), la Pakistán (el) y Sudán (el) al nivel que se indica en la Tabla 1 anterior.

A3. Preparación de proyecto del Plan de gestión de eliminación definitiva de HCFC (componente de inversión)

Argelia	Preparación de proyecto para actividades de inversión en los sectores de fabricación de equipos de acondicionamiento de aire y espumas	100 000
Pakistán (el)	Preparación de proyecto para actividades de inversión en los sectores de fabricación de equipos de acondicionamiento de aire y espumas	200 000
Filipinas	Preparación de proyecto para actividades de inversión en el sector de espumas	70 000
Sudáfrica	Preparación de proyecto para actividades de inversión en el sector de espumas	150 000
Sudán (el)	Preparación de proyecto para actividades de inversión en los sectores de fabricación de equipos de acondicionamiento de aire y espumas	100 000

Descripción del Proyecto

11. La ONUDI solicitó fondos adicionales para la preparación de actividades de inversión en los cinco países indicados *supra*, los cuales ya habían recibido aprobación de financiación para la preparación de Planes de gestión de eliminación definitiva de HCFC. Esta presentación de la ONUDI facilitó información básica sobre los sectores y el consumo de HCFC en aquellos países en los que existía dicho consumo, indicando cómo planean tales sectores ligarse a un Plan general de gestión de eliminación definitiva de HCFC, especialmente en el caso de aquellos países en los que la ejecución la llevan a cabo conjuntamente varios organismos. La información que respalda cada una de las solicitudes se recoge en las enmiendas al programa de trabajo de la ONUDI que se adjuntan al presente documento.

Observaciones de la Secretaría

12. La Secretaría examinó detenidamente las presentaciones de la ONUDI y pidió aclaraciones allí donde fueron necesarias. Tras dicho examen, la Secretaría concluyó que la información presentada por la ONUDI para cada uno de los países indicados anteriormente, así como la solicitud de financiación, eran congruentes con las prescripciones de la decisión 56/16. Además, tomó nota especialmente de que la ONUDI había consultado con otros organismos, en aquellos países con los que colaboraba en el proceso de preparación del Plan de gestión de eliminación definitiva de HCFC, y de que existe un claro entendimiento de la división de las responsabilidades que corresponde a cada organismo.

13. En lo tocante a Filipinas, la Secretaría efectuó las mismas observaciones que para la solicitud del PNUD, y concluyó que la presente solicitud puede presentarse para su aprobación, dado que el país es elegible para recibir fondos de financiación en virtud de lo prescrito en la decisión 56/16.

Recomendaciones de la Secretaría

14. La Secretaría recomienda la aprobación general de las solicitudes para la preparación de las actividades de inversión destinadas a los Planes de gestión de eliminación definitiva de HCFC para Argelia, Pakistán (el), Filipinas, Sudáfrica y Sudán (el), a los niveles de financiación que se recogen en la Tabla 1 del presente documento.

SECTION B: ACTIVIDADES CUYA CONSIDERACIÓN INDIVIDUAL SE RECOMIENDA

B1. Renovación de proyectos de fortalecimiento institucional:

a) Qatar (Fase III): 48 208 $EUA

Descripción del Proyecto

15. La ONUDI presentó la solicitud para la renovación del proyecto de fortalecimiento institucional para Qatar. La descripción de esta solicitud se presenta en el Anexo I del presente documento.

Observaciones de la Secretaría

16. La Secretaría del Fondo examinó el informe definitivo sobre fortalecimiento institucional, y el plan de acción presentado por el organismo en nombre de Qatar para respaldar la solicitud de renovación y concluye que el informe cumple y está en armonía con las prescripciones relativas a tal proyecto.

17. Al examinar este proyecto, la Secretaría tuvo en cuenta la decisión 57/36 b) por la que el Comité decidió "seguir financiando las solicitudes de proyectos de fortalecimiento institucional hasta fines de diciembre de 2010, con los niveles de actuales, a la espera de que el Comité Ejecutivo adopte en su 58ª Reunión una resolución final sobre el asunto". El Comité Ejecutivo lo reiteró en su decisión 58/16 de la 58ª Reunión, por la que decidió "aprobar las renovaciones de los proyectos de fortalecimiento institucional hasta el 31 de diciembre de 2010". Habida cuenta de tales decisiones, la financiación recomendada para las renovaciones de fortalecimiento institucional se calculó a prorrateo hasta diciembre de 2010 solamente.

18. Sin embargo, la Secretaría tomó nota de que Qatar no ha presentado aún sus datos de programa de país para 2008, la presentación de los cuales venció el 1 de mayo de 2009. La decisión 52/5 f) prescribe que "los datos sobre la ejecución de los programas de país debían presentarse con antelación a la última reunión del año y las reuniones subsiguientes como una condición previa para la aprobación y liberación de fondos para los proyectos". Dado que en el caso de Qatar no se dispone de tales datos, la solicitud se remite al Comité Ejecutivo para su consideración individual.

Recomendaciones de la Secretaría

19. El Comité Ejecutivo puede que estime oportuno examinar esta solicitud a la luz de la decisión 52/5 f) y aprobar la solicitud de renovación del proyecto de fortalecimiento institucional para Qatar a condición de que sus datos de programa de país para 2008 se presenten oficialmente a la Secretaría del Fondo Multilateral durante la celebración de la 59ª Reunión a lo más tardar. De aprobarse,

el Comité Ejecutivo puede estimar también oportuno señalar a la atención del Gobierno de Qatar las observaciones que figuran en el Anexo I del presente documento.

B2. Preparación de proyectos de demostración sobre los HCFC:

China: preparación de un proyecto de demostración para sustituir los hidroclorofluorocarbonos por hidrocarburos en el sector de espumas de poliestireno extruido (30 000 $EUA)

Observaciones y recomendaciones de la Secretaría:

20. La ONUDI, en nombre de China, presentó una solicitud para la preparación de un proyecto de demostración destinado a sustituir los hidroclorofluorocarbonos por hidrocarburos en el sector de espumas de poliestireno extruido. La Secretaría informó a la ONUDI que este proyecto no figura en la lista de proyectos de demostración acordada por el Comité Ejecutivo en su decisión 57/6, ni tampoco en el plan administrativo de dicho país para 2009. La Secretaría pidió a la ONUDI que retirara este proyecto habida cuenta de la decisión antedicha. La ONUDI notificó a la Secretaría que no era posible retirarla al constituir una solicitud oficial de China.

21. La Secretaría aborda esta cuestión en el documento UNEP/OzL.Pro/ExCom/59/11 Reseña de las cuestiones identificadas durante el examen de proyectos. El Comité Ejecutivo puede estimar oportuno considerar la preparación de un proyecto de demostración destinado a sustituir los hidroclorofluorocarbonos por hidrocarburos en el sector de espumas de poliestireno extruido de China en el contexto de la información que se recoge en dicho documento.

B3. Preparación de proyectos piloto para la eliminación de SAO:

Argelia: preparación de proyectos piloto para la eliminación de SAO: 85 000 $EUA
Camerún (el): preparación de proyectos piloto para la eliminación de SAO: 40 000 $EUA
China: preparación de proyectos piloto para la eliminación de SAO: 85 000 $EUA
Egipto: preparación de proyectos piloto para la eliminación de SAO: 60 000 $EUA
Irán (República Islámica del): preparación de proyectos piloto para la eliminación de SAO: 60 000 $EUA
Nigeria: preparación de proyectos piloto para la eliminación de SAO: 60 000 $EUA
República Árabe Siria (la): preparación de proyectos piloto para la eliminación de SAO: 60 000 $EUA

Antecedentes

22. El Comité Ejecutivo aprobó en su 58ª Reunión una serie de directrices, con carácter interino, para la financiación de proyectos de demostración de eliminación de SAO de conformidad con el párrafo 2 de la decisión XX/7 de la Reunión de las Partes. Además, en la decisión 58/19 a) ii), se prescribe también que "el Fondo Multilateral financiará un número limitado de proyectos de demostración en virtud de las condiciones que siguen" definiéndose tras ello tales condiciones en el marco de dicha decisión.

23. En lo tocante a las solicitudes de fondos para la preparación de proyectos, se prevé que las presentaciones incluyan la siguiente información:

a) Una indicación de la categoría o las categorías de actividades para la eliminación de SAO (acopio, transporte, almacenamiento, destrucción) que se incluirán en la propuesta de proyecto;

b) Una indicación acerca de si los programas de destrucción de las sustancias químicas relativas a otros acuerdos ambientales multilaterales se están ejecutando en la actualidad

en el país o han sido planificados para un futuro próximo y si será posible desarrollar sinergias;

c) Un cálculo estimativo de la cantidad de cada SAO que se gestionará dentro del proyecto;

d) La base del cálculo estimativo de SAO; dicho cálculo se podría basar en las existencias conocidas ya acopiadas, o en las actividades de acopio que ya se encuentren en una etapa de preparación muy avanzada y bien documentada;

e) Para las actividades de acopio, información respecto a esfuerzos y programas de acopio existentes o para el futuro cercano y creíbles que se encuentren en una etapa avanzada de preparación y con los que las actividades comprendidas en el proyecto estarían relacionadas; y

f) Para las actividades que se centren por lo menos parcialmente en el tetracloruro de carbono (CTC) o halones, una explicación de cómo el proyecto tendría un valor de demostración importante;

24. La ONUDI presentó solicitudes para la preparación de proyectos de eliminación de SAO en siete países. De estos siete, sólo Argelia y China cumplían con las prescripciones mínimas estipuladas en la decisión 58/19 a) iv), por lo que son las únicas que se describen en los párrafos que siguen.

25. La Secretaría tomó nota de que ninguna de estas siete solicitudes figura en la lista de proyectos prioritarios de eliminación de SAO que el Comité aprobó en su decisión 57/6, si bien se recogen en el Anexo III del Informe del Comité Ejecutivo correspondiente a la 57ª Reunión, el cual cataloga todos los proyectos piloto para eliminación de SAO que se han borrado de los planes administrativos de los organismos para 2009, exceptuando los de la República Argelina Democrática y Popular. La Secretaría ha abordado la cuestión de las prescripciones informativas de la decisión 58/19, al respecto de cinco de las siete presentaciones para proyectos piloto de eliminación de SAO, como cuestiones de criterios, en el documento UNEP/OzL.Pro/ExCom/59/11, Reseña de las cuestiones identificadas durante el examen de proyectos. El Comité Ejecutivo puede estimar oportuno considerarlo en el contexto de la información que se recoge en dicho documento.

Argelia: preparación de un proyecto para la eliminación de SAO (85 000 $EUA)

Descripción del Proyecto

26. La preparación de proyecto piloto para la eliminación de SAO que se propone para el Gobierno de Argelia analiza un planteamiento para la eliminación de 150 toneladas PAO de sustancias SAO de desecho en el país. Estas sustancias constan de una combinación de CFC-11 y CFC-12 recogidas de los programas de recuperación y reciclaje ejecutados en el país. En la propuesta se indica que esta cifra representa el 13 por ciento del volumen de SAO listas para su eliminación, cuya recogida está acometiendo el Gobierno de dicho país.

27. En su solicitud para la preparación de proyecto, la ONUDI indica que el ejercicio dotará al país con una experiencia general sobre las mejores tecnologías, criterios y estrategias para el transporte y eliminación de las SAO en el país. En dicha solicitud se indica asimismo que se explorará la posibilidades de cofinanciación sirviéndose de los mercados voluntarios de cuotas de emisiones de sustancias que contienen carbono.

28. La propuesta no especifica qué tecnología se demostrará, si bien indica que se examinarán las opciones rentables a las que el país puede aspirar, incluyendo la exportación para su eliminación, así como la instalaciones actuales que podrían convertirse localmente para dicha eliminación. El proyecto incluirá el transporte, almacenamiento y eliminación (o exportación para su eliminación) del volumen de SAO identificado. La ONUDI señala que el Gobierno de Italia ha expresado su interés en la posibilidad de trabajar conjuntamente en este proyecto, tanto en la fase de preparación como en la de ejecución, como parte de su programa bilateral.

29. La información pormenorizada relativa a la solicitud se recoge en el Anexo I del programa de trabajo de la ONUDI que se adjunta al presente documento.

Observaciones de la Secretaría

30. La Secretaría examinó este proyecto a la luz de la información prescrita en la decisión 58/19. La información presentada inicialmente por la ONUDI carecía de la información y de los datos exigidos por dicha decisión, por lo que la Secretaría pidió a la ONUDI aclaraciones sobre el análisis de las actividades de recogida que se indicaban en la solicitud para la preparación del proyecto. La ONUDI explicó que todo el plan de recogida sería financiado por el Gobierno de Argelia en el marco de los fondos nacionales enmarcados para la introducción de equipos de poco consumo energético el país. Los elementos que pueden incrementar la eficacia del plan de recogida, en la medida que atañe al proyecto piloto de eliminación propuesto, se examinarán durante la preparación propiamente dicha. La Secretaría tomó también nota de que la propuesta enuncia medidas legislativas y reguladoras claras ya existentes para respaldar la recogida de SAO y su almacenamiento en el país.

31. La ONUDI informó además a la Secretaría que siguen su curso las conversaciones con el Gobierno de Italia, el cual había expresado interés en un posible proyecto de cofinanciación mediante asistencia bilateral. La ONUDI indicó que el ejercicio de preparación del proyecto permitirá a Argelia contemplar todos los elementos necesarios conexos a la tecnología, control de emisiones, verificación de los volúmenes específicos de SAO eliminados, etc.

32. Habida cuenta de estas respuestas y deliberaciones, la ONUDI presentó una propuesta revisada en la que se tuvo en cuenta las observaciones y puntos de vista de la Secretaría en confrontación con la decisión 58/19. La propuesta así revisada se presenta a la consideración del Comité adjuntada como Anexo III al presente documento. La Secretaría toma ulteriormente nota de que el monto de financiación solicitado para la preparación de proyecto es razonable y congruente con las aprobaciones anteriores conexas a los fondos de preparación para un proyecto de este tipo.

Recomendaciones de la Secretaría

33. El Comité Ejecutivo puede estimar oportuno considerar la solicitud para la preparación de un proyecto piloto de eliminación de SAO para Argelia a la luz de la información presentada *supra* y aprobarla en consonancia con la decisión 58/19.

China: preparación de proyectos piloto para la eliminación de SAO (85 000 $EUA)

Descripción del Proyecto

34. La preparación de proyecto propuesta para China consta de un proyecto piloto que posibilitará la eliminación de 150 toneladas PAO de desechos SAO en la provincia de Shandong. Estas SAO de desecho las recoge New World, un centro de reciclaje y recuperación nombrado por el Gobierno para tratar útiles desechados. La recogida y transporte de estos aparatos viejos la financian conjuntamente

dicho centro y las autoridades locales, en cumplimiento de un reglamento que entrará en vigor en enero de 2011 por el que se obliga a la recogida y eliminación de los aparatos domésticos desechados. A pesar de que dicho reglamento no está aún en vigencia, sí está en marcha la activa recogida de tales desechos.

35. El proyecto piloto de eliminación de SAO considerará también cómo mejorar las operaciones de un horno giratorio de funcionamiento por gas en las instalaciones de New World, el cual se ha utilizado para eliminar desechos no peligrosos recogidos por dicho centro, y en el que las pruebas iniciales han dejado patente su capacidad para eliminar CFC-11 y CFC-12. El ejercicio de preparación facilitará un análisis pormenorizado de la empresa New World para determinar si la mejora podría asegurar la eliminación de los clorofluorocarbonos de los equipos antiguos conforme con las actuales normas de eliminación aceptable. Así mismo, analizará un criterio pormenorizado de gestión para regular el proceso de recogida y transporte de desechos SAO, así como su eliminación, incluyendo en ello los procedimientos de verificación, inspección y supervisión. Además, examinará la posibilidad de eliminar los clorofluorocarbonos de desecho presentes en espumas, sin extraerlos, es decir, incinerando directamente la espuma propiamente dicha.

36. En su solicitud de preparación de proyecto, la ONUDI indicó que este proyecto piloto abordará todos los aspectos de un sistema completo de gestión de desechos SAO en la provincia de Shandong, sirviéndose de la empresa New World experimentalmente. En función de los resultados que se obtengan del experimento, cabe la posibilidad de crear un proceso de eliminación a mayor escala que pudiera servir para atajar los desechos de SAO en la República Popular China, en la que existe un banco de SAO almacenadas en equipos de desecho.

37. El ejercicio de preparación de proyecto examinará también mecanismos alternativos de financiación y un modelo financiero para la sostenibilidad de la eliminación de SAO en dicho país. La información pormenorizada sobre la solicitud presentada se recoge en el Anexo III del programa de trabajo de la ONUDI que se adjunta al presente documento.

Observaciones de la Secretaría

38. La Secretaría examinó este proyecto a la luz de la información prescrita en la decisión 58/19. Pidió asimismo aclaraciones a la ONUDI al respecto de las operaciones de New World, y una descripción del planteamiento de eliminación que se está utilizando actualmente. Así mismo pidió a la ONUDI una aclaración sobre el proceso de incineración de espumas para eliminar clorofluorocarbonos. La ONUDI aclaró que el actual horno giratorio de las instalaciones de New World se utiliza principalmente para tratar otros desechos sólidos y que actualmente funciona a plena capacidad. Puesto que este equipo podría utilizarse también para la eliminación de SAO, el proyecto piloto explorará formas eficaces de así hacerlo. La ONUDI señaló también el hecho de que esta empresa es además responsable de la recogida de equipos de desecho y que, por lo tanto, el actual horno giratorio puede utilizarse para eliminar clorofluorocarbonos, lo que se consideraría una prioridad.

39. La ONUDI informó además a la Secretaría de que si bien es posible incinerar la espuma tal cual, directamente, ello no constituye un método rentable económica ni energéticamente, por lo que se explorarán otros medios más eficaces. El organismo añadió también que el Gobierno del Japón está interesado en colaborar en este proyecto, dada su amplia experiencia en la eliminación de desechos de SAO. La Secretaría toma nota ulteriormente de que el volumen de financiación solicitado para la preparación de proyecto es razonable y congruente con anteriores aprobaciones de fondos para preparación de proyectos de este tipo.

Recomendaciones de la Secretaría

40. El Comité Ejecutivo puede estimar oportuno examinar la solicitud para la preparación de un proyecto piloto de eliminación de SAO en China habida cuenta de la información presentada *supra*, y aprobarlo en consonancia con lo estipulado en la decisión 58/19.

B4. Asistencia técnica

Mundial: Movilización de recursos para abordar los cobeneficios climáticos en la eliminación de HCFC: 300 000 $EUA

Descripción del Proyecto

41. La ONUDI presentó una solicitud a las Reuniones 57ª y 58ª por valor de 300 000 $EUA para un proyecto de asistencia técnica destinado a movilizar recursos con miras a realzar al máximo los beneficios climáticos derivados de la eliminación de hidroclorofluorocarbonos. La ONUDI presenta nuevamente esta solicitud a la consideración de la presente reunión. La propuesta incluye una nota conceptual en la que se describen los objetivos y las actividades, así como los resultados que se prevé obtener de este proyecto. La propuesta se presenta nuevamente sin cambio alguno a la ya presentado a la 58ª Reunión.

42. Con arreglo a la propuesta, el proyecto desarrollará conceptos y metodologías para calcular los costos adicionales a sufragar por el Fondo Multilateral, lo que puede redundar en la introducción de alternativas o prácticas de las que emanen beneficios climáticos adicionales. Dichos costos adicionales quizás sean principalmente conexos a la mejora del rendimiento en el consumo energético durante la fabricación y, posteriormente, redundar en un consumo energético más eficaz durante el funcionamiento del equipo. El estudio explorará cómo podrían cubrirse estos costos adicionales de mano, por ejemplo, del Fondo para el Medio Ambiente Mundial, sirviéndose de un mecanismo especial del Fondo Multilateral que permitiera un mayor número de aprobaciones de proyectos de eliminación con beneficios climáticos adicionales sin menoscabar los ya limitados fondos de los que se dispone bajo las actuales reglas de reposición.

43. Los resultados que se prevé obtener de esta asistencia técnica incluirán: a) una metodología para calcular el costo adicional que afrontar si se tienen plenamente en consideración los beneficios de una tecnología específica para con el clima a la hora de seleccionar alternativas a los hidroclorofluorocarbonos, y b) una metodología dedicada a estudiar el cálculo de los beneficios climáticos adicionales que emanen de la adecuada gestión y destrucción de SAO. La ONUDI tiene también intención de aplicar estas metodologías en dos de sus proyectos piloto en el Reino Hachemita de Jordania y en uno de los proyectos de demostración propuestos para la eliminación de SAO.

44. La tabla que se sigue facilita un desglose de los 300 000 $EUA solicitados por la ONUDI:

Asesores internacionales	72 000
Asesores nacionales	48 000
Desplazamientos	30 000
Equipos	100 000
Gestión, supervisión y capacitación	50 000
Total	**300 000**

Observaciones de la Secretaría

45. Las directrices para la preparación de Planes de gestión de eliminación definitiva de HCFC, acordadas y plasmadas en las prescripciones de la decisión 54/39, incluyen la disposición relativa a los países que operan al amparo del Artículo 5 a explorar posibles incentivos financieros y oportunidades para obtener recursos adicionales para aumentar al máximo los beneficios ambientales de los Planes de gestión de eliminación definitiva de HCFC que pudieran ser pertinentes para asegurar que los resultados de la eliminación de los HCFC redunden en beneficios conforme al párrafo 11 b) de la decisión XIX/6 de la 19ª Reunión de las Partes.

46. La Secretaría toma nota de que los resultados del estudio propuesto por la ONUDI pueden ayudar a los países a examinar las opciones de que disponen en lo que a la cofinanciación respecta, en estos momentos en los que la preparación de los planes de gestión de eliminación definitiva de HCFC está teniendo lugar en más de 100 países que operan al amparo del Artículo 5. Además, señala también que hasta la fecha no se dispone de orientación alguna que haya emitido el Comité Ejecutivo sobre cómo calcular los beneficios para con el clima de la eliminación de los hidroclorofluorocarbonos, y sobre si estos costos podrían considerarse costos adicionales en lo que al Fondo Multilateral concierne. La Secretaría toma nota asimismo de que la propuesta de la ONUDI describe el desarrollo de metodologías para posibilitar la cofinanciación con el Fondo para el Medio Ambiente Mundial (FMAM).

47. En su examen de los costos propuestos para el proyecto, la Secretaría tomó nota de que la ONUDI incluyó en su presupuesto 100 000 $EUA para equipos. Al aclarar la incorporación de un componente del equipo, la ONUDI informó a la Secretaría de que la propuesta incluye la implantación piloto en una o dos empresas para demostrar las metodologías que desarrollarán, y que dichos equipos se necesitarán durante esta fase piloto. La Secretaría presenta ciertas dudas sobre el equipo necesario en el marco de este proyecto de movilización de recursos.

48. En su 57ª Reunión, el Comité Ejecutivo debatió sobre un mecanismo para que se mantengan ingresos adicionales de préstamos y otras fuentes (documento UNEP/OzL.Pro/ExCom/57/64), y estipuló mediante la decisión 57/37 que la Secretaría preparara un documento revisado con un análisis ulterior y lo presentara a la consideración del Comité en su 58ª Reunión.

49. En su 58ª Reunión, el Comité Ejecutivo estipuló la decisión 58/37 que incluye la decisión de ... Aplazar la consideración de las solicitudes de movilización de recursos sujeto a las deliberaciones más fondo sobre este tema y otras propuestas similares para su consideración en reuniones futuras. Por lo tanto, esta propuesta no se trató en la 58ª Reunión. La Secretaría toma nota de que la presentación nuevamente de esta propuesta ante la 59ª Reunión tiene por objeto su consideración por parte del Comité Ejecutivo y está en consonancia con las deliberaciones enmarcadas en el punto 11 del orden del día de esta reunión bajo “Documento conceptual adicional sobre un mecanismo especial para obtener ingresos adicionales de préstamos y otras fuentes”.

Recomendaciones de la Secretaría

50. El Comité Ejecutivo puede estimar oportuno considerar la solicitud de ayuda técnica para movilizar recursos destinados a la eliminación de los hidroclorofluorocarbonos y a lograr beneficios climáticos adicionales, habida cuenta de la información indicada *supra*, así como en la deliberación enmarcada en el punto 11 del orden día, Documento conceptual adicional sobre un mecanismo especial para obtener ingresos adicionales de préstamos y otras fuentes.

Anexo I

PROPUESTAS DE PROYECTOS DE REFORZAMIENTO INSTITUCIONAL

Qatar: Renovación de Proyecto de Fortalecimiento Institucional

Resumen del proyecto y perfil de país	
Organismo de ejecución:	ONUDI
Montos previamente aprobados para el fortalecimiento institucional. (EUA$):	
Fase I: Marzo-99	64 171
Fase II (año 1): Diciembre-03	43 285
Fase II (año 2): Julio-06	44 500
Total	151 956
Monto solicitado para la renovación (Fase III) (EUA$):	48 208
Monto recomendado para la aprobación de la Fase III (EUA$):	48 208
Costos de apoyo del organismo (EUA$):	3 616
Costo total de fortalecimiento institucional, Fase III, para el Fondo Multilateral (EUA$):	51 824
Monto equivalente de la eliminación de clorofluorocarbonos por el fortalecimiento institucional, Fase III, a 12,1 $EUA /kg (toneladas PAO):	n/a
Fecha de aprobación del programa de país:	1999
Consumo de SAO notificado en el programa de país (1999) (toneladas PAO):	0
Consumo básico de sustancias controladas (toneladas PAO):	
a) Anexo A Grupo I (Clorofluorocarbonos) (Media 1995-1997)	101,4
b) Anexo A Grupo II (Halones) (Media 1995-1997)	10,7
c) Anexo B Grupo II (Tetracloruros de carbono) (Media 1998-2000)	0
d) Anexo B Grupo III (1,1,1-tricloroetano) (Media 1998-2000)	0
e) Anexo E (Metilbromuro) (Media 1995-1998)	0
Últimos datos del consumo de sustancias controladas notificados (2007) (toneladas PAO) de conformidad con el Artículo 7:	
a) Anexo A Grupo I (Clorofluorocarbonos)	13
b) Anexo A Grupo II (Halones)	0
c) Anexo B Grupo II (Tetracloruros de carbono)	0
d) Anexo B Grupo III (1,1,1-tricloroetano)	0
e) Anexo E (Metilbromuro)	0
f) Anexo C Grupo I (Hidroclorofluorocarbonos)	23,5
Total	36,5
Año de ejecución de los datos notificados para el programa de país:	2007
Monto aprobado para proyectos (EUA$):	1 112 453
Monto desembolsado (en septiembre de 2009) (EUA$):	709 962
SAO por eliminar (toneladas PAO):	89,2
SAO eliminadas (en septiembre de 2009) (toneladas PAO):	86,3

1. Resumen de actividades y fondos aprobados por el Comité Ejecutivo:

Resumen de actividades		**Fondos aprobados (EUA$)**
a)	Proyectos de inversión:	242 500
b)	Fortalecimiento institucional:	151 956
c)	Preparación de proyecto, asistencia técnica, capacitación y otros proyectos sin inversión:	717 997
	Total:	1 112 453

Informe sobre la marcha de las actividades

2. El programa de actividades conexo al reforzamiento institucional forma parte del compromiso contraído por Qatar para eliminar el consumo de SAO de forma controlada y económica. En la última fase del fortalecimiento institucional se desplegaron esfuerzos específicos para supervisar las importaciones y el consumo de sustancias que agotan la capa de ozono (SAO) mediante un sistema de cuotas, el sistema de concesión de licencias y los permisos de importación, así como en el programa de certificación de la ejecución del Plan de gestión de eliminación definitiva de HCFC. El país ha conseguido también avances en la ejecución de dicho plan. La Dependencia Nacional del Ozono implantó también una serie de campañas de concienciación dirigidas a los responsables de tomar decisiones, funcionarios de aduanas, inversores, trabajadores y público en general.

Plan de acción

3. En lo tocante a la siguiente fase, la Dependencia Nacional del Ozono impondrá estrictamente una supervisión del sistema de cuotas y de concesión de licencias para vigilar las importaciones de SAO. El país se ha comprometido a mantener el momento hasta el año 2010 y cumplir con los próximos objetivos de eliminación de hidroclorofluorocarbonos, iniciando para ello la preparación del Plan de gestión de eliminación definitiva de tales HCFC.

Serbia: Renovación de Proyecto de Fortalecimiento Institucional

Resumen del proyecto y perfil de país	
Organismo de ejecución:	ONUDI
Montos previamente aprobados para el fortalecimiento institucional (EUA$):	
Fase I: Julio-98	151 500
Fase II: Diciembre-04	131 300
Total	282 800
Monto solicitado para la renovación (Fase III) (EUA$):	71 121
Monto recomendado para la aprobación de la Fase III (EUA$):	71 121
Costos de apoyo del organismo (EUA$):	5 334
Costo total de fortalecimiento institucional, Fase III, para el Fondo Multilateral (EUA$):	76 645
Monto equivalente de la eliminación de clorofluorocarbonos por el fortalecimiento institucional, Fase III, a 12,1 $EUA /kg (toneladas PAO):	n/a
Fecha de aprobación del programa de país:	1998
Consumo de SAO notificado en el programa de país (1998) (toneladas PAO):	0
Consumo básico de sustancias controladas (toneladas PAO):	
a) Anexo A Grupo I (Clorofluorocarbonos) (Media 1995-1997)	849,2
b) Anexo A Grupo II (Halones) (Media 1995-1997)	3,8
c) Anexo B Grupo II (Tetracloruros de carbono) (Media 1998-2000)	18,8
d) Anexo B Grupo III (1,1,1-tricloroetano) (Media 1998-2000)	0
e) Anexo E (Metilbromuro) (Media 1995-1998)	8,3
Últimos datos del consumo de sustancias controladas notificados (2008) (toneladas PAO) de conformidad con el Artículo 7:	
a) Anexo A Grupo I (Clorofluorocarbonos)	76,7
b) Anexo A Grupo II (Halones)	1,8
c) Anexo B Grupo II (Tetracloruros de carbono)	2,1
d) Anexo B Grupo III (1,1,1-tricloroetano)	0
e) Anexo E (Metilbromuro)	0
f) Anexo C Grupo I (Hidroclorofluorocarbonos)	7,4
Total	88

Año de ejecución de los datos notificados para el programa de país:	2008
Monto aprobado para proyectos (EUA$):	7 488 430
Monto desembolsado (en septiembre de 2009) (EUA$):	5 152 349
SAO por eliminar (toneladas PAO):	848
SAO eliminadas (en septiembre de 2009) (toneladas PAO):	773,4

4. Resumen de actividades y fondos aprobados por el Comité Ejecutivo:

Resumen de actividades		**Fondos aprobados (EUA$)**
a)	Proyectos de inversión:	5 947 831
b)	Fortalecimiento institucional:	282 800
c)	Preparación de proyecto, asistencia técnica, capacitación y otros proyectos sin inversión	1 257 799
	Total:	7 488 430

Informe sobre la marcha de las actividades

5. Se han aprobado dos fases de fortalecimiento institucional para Serbia. La Dependencia Nacional del Ozono ha venido supervisando y coordinando la conversión y el programa de eliminación en todo el marco del país, en todos los sectores que atañen al Protocolo de Montreal. Dicha Dependencia ha desplegado sus mejores esfuerzos durante las dos últimas fases de la supervisión y consumo de las SAO, imponiendo estrictamente el sistema de cuotas y el de concesión de licencias del país. La Dependencia ha efectuado además una serie de campañas de concienciación dirigidas a los responsables de la toma de decisiones, oficiales de aduanas, investigadores y público en general. El consumo de clorofluorocarbonos en el país durante 2008 señala que está en situación de cumplimiento con las obligaciones para con los objetivos del Protocolo de Montreal.

Plan de acción

6. La Dependencia Nacional del Ozono se encuentra en la Sección de Protección del Aire del Ministerio del Medio Ambiente y Planificación Espacial. Las actividades que se describen en el proyecto de fortalecimiento institucional se incluyen en los planes nacionales y gubernamentales, por los que los proyectos y actividades se alinean con de los objetivos centrales del ministerio antedicho y de su Sección de Protección del Aire. El país se ha obligado a mantener el momento hasta el año 2010 y a cumplir con los objetivos inmediatos de la fase de eliminación de hidroclorofluorocarbonos, iniciando para ello la preparación del Plan de gestión de eliminación definitiva de los HCFC.

Jamahiriya Árabe Libia: Renovación de Proyecto de Fortalecimiento Institucional

Resumen del proyecto y perfil de país	
Organismo de ejecución:	ONUDI
Montos previamente aprobados para el fortalecimiento institucional (EUA$):	
Fase I: Dec-00	157 000
Total	157 000
Monto solicitado para la renovación (Fase II) (EUA$):	73 702
Monto recomendado para la aprobación de la II (EUA$):	73 702
Costos de apoyo del organismo (EUA$):	5 528
Costo total de fortalecimiento institucional, Fase II, para el Fondo Multilateral (EUA$):	79 230
Monto equivalente de la eliminación de clorofluorocarbonos por el fortalecimiento institucional, Fase II, a 12,1 $EUA /kg (toneladas PAO):	n/a

Fecha de aprobación del programa de país:	2000
Consumo de SAO notificado en el programa de país (2000) (toneladas PAO):	1052,4
Consumo básico de sustancias controladas (toneladas PAO):	
a) Anexo A Grupo I (Clorofluorocarbonos) (Media 1995-1997)	716,7
b) Anexo A Grupo II (Halones) (Media 1995-1997)	633,1
c) Anexo B Grupo II (Tetracloruros de carbono) (Media 1998-2000)	0
d) Anexo B Grupo III (1,1,1-tricloroetano) (Media 1998-2000)	0
e) Anexo E (Metilbromuro) (Media 1995-1998)	94,1
Últimos datos del consumo de sustancias controladas notificados(2007) (toneladas PAO) de conformidad con el Artículo 7:	
a) Anexo A Grupo I (Clorofluorocarbonos)	57,5
b) Anexo A Grupo II (Halones)	291,5
c) Anexo B Grupo II (Tetracloruros de carbono)	0
d) Anexo B Grupo III (1,1,1-tricloroetano)	0
e) Anexo E (Metilbromuro)	67,6
f) Anexo C Grupo I (Hidroclorofluorocarbonos)	36,5
Total	453,1
Año de ejecución de los datos notificados para el programa de país:	2008
Monto aprobado para proyectos (EUA$):	6 511 080
Monto desembolsado (en septiembre de 2009) (EUA$):	4 136 312
SAO por eliminar (toneladas PAO):	1 567,3
SAO eliminadas (en septiembre de 2009) (toneladas PAO)n	667,4

7. Resumen de actividades y fondos aprobados por el Comité Ejecutivo:

	Resumen de actividades	**Fondos aprobados (EUA$)**
a)	Proyectos de inversión:	5 668 241
b)	Fortalecimiento institucional:	157 000
c)	Preparación de proyecto, asistencia técnica, capacitación y otros proyectos sin inversión:	685 839
	Total:	6 511,080

Informe sobre la marcha de las actividades

8. El programa de actividades relativo al reforzamiento institucional forma parte del compromiso contraído por la Jamahiriya Árabe Libia Popular y Socialista para eliminar el consumo de sustancias que agotan la capa de ozono (SAO) de forma controlada y económica. La Dependencia Nacional del Ozono es responsable de la ejecución de las políticas nacionales para la protección de la capa de ozono, conforme al Protocolo de Montreal. Su responsabilidad es la de responder a nivel oficial a las preocupaciones individuales, comerciales e institucionales relativas al control de las SAO. Se han desplegado esfuerzos específicos para supervisar las importaciones y el consumo de SAO. La Dependencia Nacional del Ozono ha efectuado una serie de campañas de concienciación dirigidas a los responsables de la toma de decisiones, funcionarios de aduanas, inversores, trabajadores y público en general. La Jamahiriya Árabe Libia es un miembro activo de la red regional. A pesar de la continua rota de su personal, la Dependencia Nacional del Ozono continúa funcionando y teniendo un marco de referencia claro para coordinar las medidas de carácter nacional en el programa de eliminación de SAO. De producirse necesidades específicas y necesitarse asesoría técnica, dicha dependencia dispone, desde 2006, de una plantilla comprometida y de asesores profesionales cuyo objeto es el de asistirla en su funcionamiento cotidiano.

Plan de acción

9. La Dependencia Nacional del Ozono es el núcleo de la estructura de gestión de las SAO. Está integrada en el marco de la Autoridad General para el Medio Ambiente y tiene acceso directo al Director General y al Ministro. En esta nueva fase el país tiene intención de lograr la ratificación de todas las Enmiendas para el 2010 a lo más tardar, reducir el consumo de clorofluorocarbonos e iniciar medidas dinámicas para el control y eliminación de los hidroclorofluorocarbonos.

Anexo II

PUNTOS DE VISTA EXPRESADOS POR EL COMITÉ EJECUTIVO SOBRE LA RENOVACIÓN DE LOS PROYECTOS DE FORTALECIMIENTO INSTITUCIONAL PRESENTADOS A LA 59ª REUNIÓN

Qatar

1. El Comité Ejecutivo, tras examinar el informe presentado junto con la solicitud de renovación del proyecto de fortalecimiento institucional para el Estado de Qatar, toma nota con reconocimiento de su situación de cumplimiento para con las prescripciones del Protocolo de Montreal. El Comité Ejecutivo toma nota también de que en el marco del proyecto de fortalecimiento institucional, el Estado de Qatar ha tomado considerables medidas para eliminar el consumo de sustancias que agotan la capa de ozono (SAO); son de resaltar específicamente, la ejecución de las estrategias en diferentes sectores de la eliminación de SAO y los ininterrumpidos esfuerzos regulatorios desplegados por el sistema de cuotas y de concesión de licencias. El Comité Ejecutivo respalda con entusiasmo los esfuerzos de Qatar para reducir el consumo de clorofluorocarbonos, y alienta al país a iniciar el control del consumo de hidroclorofluorocarbonos preparando para ello el plan de gestión de eliminación definitiva de HCFC.

Serbia

2. El Comité Ejecutivo, tras examinar el informe presentado junto con la solicitud de renovación del proyecto de fortalecimiento institucional para la República de Serbia, toma nota con reconocimiento de que dicho país está cumpliendo con el programa de eliminación y con sus obligaciones de notificación de conformidad con sus obligaciones para con los Artículos 4 y 7 del Protocolo de Montreal. El Comité Ejecutivo señala también que, en el marco del proyecto de renovación del fortalecimiento institucional, la República de Serbia ha tomado medidas significativas respecto de la creación de capacidad, así como de la eliminación del consumo de sustancias que agotan la capa de ozono (SAO); son de resaltar específicamente, la ejecución de las estrategias en diferentes sectores de la eliminación de SAO y los ininterrumpidos esfuerzos regulatorios desplegados por el sistema de cuotas y de concesión de licencias. Por lo tanto, el Comité Ejecutivo confía en que la República de Serbia continúe implementando su programa de país y las actividades del plan nacional de gestión de eliminación alcanzando en ello notables resultados.

Jamahiriya Árabe Libia

3 El Comité Ejecutivo, tras examinar el informe presentado junto con la solicitud de renovación del proyecto de fortalecimiento institucional para la Jamahiriya Árabe Libia, toma nota con reconocimiento de que dicho país está en situación de cumplimiento de sus obligaciones de notificación para con la Secretaría del Ozono y con la Secretaría del Fondo Multilateral en lo tocante al Artículo 7 y a los datos de ejecución y avance del programa de país para el año 2008. El Comité Ejecutivo toma nota también de que en el marco del proyecto de renovación del fortalecimiento institucional, la Jamahiriya Árabe Libia ha tomado considerables medidas para fortalecer la oficina de la Dependencia Nacional del Ozono. El Comité Ejecutivo respalda los esfuerzos de la Jamahiriya Árabe Libia para lograr la ratificación de las Enmiendas de Beijing y de Montreal al Protocolo de Montreal y para reducir el consumo de clorofluorocarbonos.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

59th Executive Committee of the
Multilateral Fund for the Implementation
of the Montreal Protocol

UNIDO Work Programme

59th ExCom

UNIDO

Work Programme – 59th ExCom
Revision 1 (18 September 2009)

Introduction

The UNIDO Work Programme for the consideration of the 59th ExCom of the Multilateral Fund has been prepared based on the ongoing and planned activities and following receipt of government requests. The Work Programme will support the implementation of UNIDO's three year Rolling Business Plan 2009-2011.

Focus has been put on preparatory activities for the phase-out of HCFCs in Article 5 countries as well as on the preparation of ODS disposal demonstration projects following the criteria set by ExCom Decision 58/19.

The renewal of institutional strengthening support will be required for Libya, Qatar and Serbia, in line with the UNIDO Rolling Business Plan 2009 - 2011. As per the decision taken at the 58th ExCom Meeting, these requests are for the period until end 2010.

Following the established practice, UNIDO is listing in the work programme its Core Unit Funding request for 2010 amounting to US$ 1,913,365. However, the complete submission of the Core Unit Funding request is submitted to the Multilateral Fund Secretariat separately.

The document comprises the following sections:

Section 1

Gives in a tabulated form by project types and country a consolidated list of activities foreseen for HCFC, ODS disposal and institutional strengthening.

Funding is requested as follows:

- Institutional strengthening: US$ 207,509 including 7.5% A.S.C.;
- Project preparation (ODS disposal and HCFC related activities): US$ 1,510,375 including 7.5% A.S.C.;
- Global Project on resource mobilization: US$ 322,750 incl. 7.5 % ASC
- Core Unit Funding for 2010: US$ 1,913,365
- Total: **US $ 3,953,748** including A.S.C.

Section 2

Provides the corresponding project concepts indicating some details and funding requirements.

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Work Programme – 59th ExCom
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Section 1

Consolidated table giving project preparation and non-investment projects in all countries and sectors

Country	Type	Subs-tance	Title of Project	Requested amount USD	A.S.C USD	Total (incl ASC) USD	A.S.C. %	P. D.	Remarks
Institutional Strengthening									
Libya	INS	All	Institutional Strengthening, Renewal.	73,702	5,527	79,230	7.5	13	07/09 to 12/10
Qatar	INS	All	Institutional Strengthening, Renewal.	48,208	3,615	51,824	7.5	13	07/09 to 12/10
Serbia	INS	All	Institutional Strengthening, Renewal.	71,121	5,334	76,455	7.5	13	07/09 to 12/10
			Institutional Strengthening Total	**193,031**	**14,476**	**207,509**			
Project preparation for ODS disposal demonstration projects									
Algeria	PRP	CFC11/ 12	ODS destruction demo project	85,000	6,375	91,375	7.5	18	
Cameroon	PRP	CFC12	ODS destruction demo project	40,000	3,000	43,000	7.5	12	
China	PRP	CFC11/ 12	ODS destruction demo project	85,000	6,375	91,375	7.5	18	
Egypt	PRP	CFC11/ 12 Halons	ODS destruction pilot project	60,000	4,500	64,500	7.5	12	
Iran	PRP	CFC11/ 12 Halons	ODS destruction pilot project	60,000	4,500	64,500	7.5	12	
Nigeria	PRP	CFC12/ Halons	ODS destruction demo project	60,000	4,500	64,500	7.5	12	
Syria	PRP	CFC11/ 12 Halons	ODS destruction pilot project	60,000	4,500	64,500	7.5	12	
			ODS DISPOSAL - TOTAL	**450,000**	**33,750**	**483,750**			
Project preparation for HCFC phase-out investment and demonstration projects									
Algeria	PRP	HCFC	Refrigeration and A/C manufacturing sectors	60,000	4,500	64,500	7.5	12	
Algeria	PRP	HCFC	PU foam sector	40,000	3,000	43,000	7.5	12	
China	PRP	HCFC	Technology demonstration project for HC blowing agent in the XPS sector	30,000	2,250	32,250	7.5	18	
Pakistan	PRP	HCFC	Refrigeration and A/C manufacturing sectors	120,000	9,000	129,000	7.5	12	
Pakistan	PRP	HCFC	PU foam sector	80,000	6,000	86,000	7.5	12	
South Africa	PRP	HCFC	PU foam sector	150,000	11,250	161,250	7.5	12	
Sudan	PRP	HCFC	Refrigeration manufacturing sector	60,000	4,500	64,500	7.5	12	
Sudan	PRP	HCFC	PU foam sector	40,465	3,035	43,500	7.5	12	
			HCFC INV-PRP TOTAL	**580,000**	**43,500**	**623,500**			

Additional funding for HPMP preparation (HPMP)									
Ecuador	PRP	HCFC	HPMP preparation	75,000	5,625	80,625	7.5	12	
Iraq	PRP	HCFC	Additional funding HPMP preparation	65,000	4,875	69,875	7.5	12	
Pakistan	PRP	HCFC	Additional funding HPMP preparation	45,000	3,375	48,375	7.5	12	
Philippines	PRP	HCFC	HPMP preparation -foam sector plan	70,000	5,250	75,250	7.5	12	
Sudan	PRP	HCFC	Additional funding HPMP preparation	120,000	9,000	129,000	7.5	12	
			Additional funding for HPMP - Total	**375,000**	**28,125**	**403,125**			
Technical assistance for funds mobilization									
Global	TAS	SEV	Funds mobilization	300,000	22,750	322,750	7.5	12	
Core Unit Funding for 2010									
Global	TAS	SEV	Core Unit Funding - 2010	0	1,913,365	1,913,365			

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Section 2

Project concepts

Project Concept

Country:	**Libya**
Title:	Extension of Institutional Strengthening Project for the Montreal Protocol related activities (Phase II)
Project Duration:	18 months
Project Budget:	126,581 (including US$ 8,831 representing 7.5% Agency Support Costs)
Implementing Agency:	UNIDO
Coordinating Agency:	NOU/ Ministry of Environment

Project Summary

UNIDO received the official Government request from the Ministry of Environment / NOU in Libya for the renewal of the institutional strengthening support.

The project objective aims to improve capacity of government structures responsible for Ozone Depleting Substances Phase-out with a specific view to achieve compliance in HCFCs phase-out.

The NOU will monitor all the project activities as per the Country Programme, including the collection of consumption data and reporting as required, with a specific view to HCFCs phase-out schedule for Article 5 countries.

Project Concept

Country:	**Qatar**
Title:	Extension of Institutional Strengthening for the implementation of Montreal Protocol in State of Qatar (phase III)
Project Duration:	18 months
Project Budget:	37,625 (including US% 2,625 representing 7.5% Agency Support Costs)
Implementing Agency:	UNIDO
Coordinating Agency:	Ozone Unit/ Ministry of Environment

Project Summary

The project aims at institutional strengthening and capacity building of the Ministry of Environment / Ozone Unit and will ensure helping the Government meet its obligations under the Montreal Protocol on the substances that deplete the ozone layer.

In this context, the National Ozone Office will be assisted in monitoring and identifying ozone-depleting substances consumption and up-dating the needed national policies and regulations, with a focus on HCFCs consumption.

The NOU will monitor all the project activities as per the Country Programme, including the collection of consumption data and reporting as required, with a specific view to HCFCs phase-out schedule for Article 5 countries.

Project Concept

Country:	**Serbia**
Title:	Renewal of Institutional Strengthening Support, Phase III, (in line with decision 58/16 approving institutional strengthening renewals up to 31 December 2010)
Project Duration:	18 months
Project Budget:	106,667 (including US% 7,442 representing 7.5% Agency Support Costs)
Implementing Agency:	UNIDO
Coordinating Agency:	National Ozone Unit, Ministry of Environment and Spatial Planning

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Project Summary

The project aims at institutional strengthening and capacity building of the National Ozone Unit, Ministry of Environment and Spatial Planning and will ensure helping the Government meet its obligations under the Montreal Protocol on the substances that deplete the ozone layer.

In this context, the National Ozone Office will be assisted in monitoring and identifying ozone-depleting substances consumption and up-dating the needed national policies and regulations, with a focus on HCFCs consumption.

The NOU will monitor all the project activities as per the Country Programme, including the collection of consumption data and reporting as required, with a specific view to HCFCs phase-out schedule for Article 5 countries.

Project Concept

Country:	Algeria
Title:	Preparation ODS disposal pilot projects
Project Duration:	12 months
Project Budget:	US$ 85,000 plus US$ 6,375 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	National Ozone Bureau - Ministère de l'Aménagement du Territoire de l'Environnement

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Project Background

Following Decision XX/7 of the Meeting of the Parties the Executive Committee decided at its 58th Meeting in July 2009 (Dec. 58/19) to fund a limited number of demonstration projects for the disposal of ODSs.
Despite the number of demonstration project approved by the Executive Committee at its 57th meeting, there are no projects as such financed in North-African Countries. The objective of this project proposal is to gain experiences on destruction of ODSs, which could be beneficial to all other countries in the region.

UNIDO received a government request from Algeria to prepare a demonstration project for the collection, transportation, storage and destruction of unwanted or obsolete ODSs.

This project will be implemented with the assistance of the Government of Italy, which has expressed the interest to finance bilateral project.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Algeria and includes information on existing stock of unwanted ODSs destroyed as well as estimation of amount of ODSs that could be easily collected to be destroyed.

Amount of ODSs available in Algeria for destruction

Algeria is a large populated country with 35 million people. The industrialization trend in Algeria has been positive over the past

years with an average of 4% and the social wellness is growing fast as well.

A recent survey conducted has highlighted that the amount of ODSs easily available to be destroyed in Algeria is huge. This is due to the fact that there are still many equipment and installation (mainly refrigeration and air conditioning systems) relying on CFC 12 as refrigerant and having CFC11 contained in the foam.
Some of the installations are in limited number and have high capacities in terms CFC12 charge, such as the "Chalets", the "Big Cold Chambers" and big buildings (e.g. hospitals, public buildings, etc). The access to these amounts is estimated to be very easy and the collection should require limited efforts.
However, the largest amount of CFC12 and CFC11 to be collected and destroyed is contained in household refrigerators and freezers. The collection of ODSs from these appliances should be designed properly in order to ensure the highest rate of recovery.
Finally, the survey identified stocks of unwanted ODSs available for destruction. Indeed, manufacturing companies assisted in the reconversion from CFCs to non-CFCs technologies (in particular in the foam sector), have still cylinders of ODSs that should be destroyed.

The table below shows the results of the preliminary survey indicating the amount of CFC11 and CFC12, which could be easily collected and destroyed.
For each sector, a coefficient of recovery of the total amount of ODS in the country has been estimated. This coefficient takes into account various parameter, including the accessibility and the difficulties in the logistic arrangements for the recovery.

Application	**Number**	**CFC12 (Kg)**	**CFC11 (Kg)**	**Total ODSs (Kg)**	**Co-efficient for recovery**	**ODS expected (Kg)**
Domestic Refrigerators						
	2100000	0.25	0.6	1785000	0.5	892,500
Commercial refrigerators						
	8250	1.5	0	12375	0.75	9,281
Cold Chambers						
	100	200	0	20000	0.8	16,000
MAC						
	10000	2.5	0	25000	0.2	5,000
Chalets						
	200	500	0	100000	0.9	90,000
Buildings						
	20000	10	0	200000	0.5	100,000
Existing stocks						
	1	0	300	300	1	300

Total	**2,142,675**		**1,113,081**

Legislation in place and existing experiences in the sector

Algeria has a strong legislation with regard to the use of ODSs in manufacturing sectors.
The main regulations and decrees in the refrigeration and AC sectors are the following:

- Décret exécutif N°2000-73 du 1er avril 2000, complétant le décret exécutif n°93-165 du 10 juillet 1993 réglementant les émissions atmosphériques de fumées, gaz, poussière, odeurs et particules solides des installations fixes
- Décret exécutif N°06-104 du 28 février 2006 fixant la nomenclature des déchets, y compris les déchets dangereux
- Décret exécutif N°07-144 du 19 mai 2007 fixant la nomenclature es installations classées pour la protection de l'environnement
- Décret exécutif N°07-207 du 30 juin 2007 réglementant l'usage des substances qui appauvrissent la couche d'ozone, de leurs mélanges et des produits qui en contiennent

There are also national programmes in place for the development an adoption of energy efficient technology in Algeria. The main national legislation in this regard is the "Loi sur la maîtrise de l'énergie ; No. 99 -09 de 1999" and its various executive decrees such as the "Décret exécutif du 11 Janvier 2005 relatif à l'efficacité énergétique" and the "Arrêté interministériel du 29 Novembre 2008 relatif à la classification énergétique des réfrigérateurs et climatiseurs".

Furthermore, a national funds on Energy Efficiency (Fonds National pour la Maîtrise de l'Energie - FNME).
L'Agence Nationale pour la Promotion et la Rationalisation de l'Utilisation de l'Energie (APRUE) has recently developed a programme financed by the FNME for the introduction of energy-efficient technologies in different sectors, including Air conditioning and refrigeration sectors.

Collection scheme

Due to the very large territory of Algeria, five recovery centers will be established, mainly in the northern part of the country where the most important industrial and civil centers are located. Four centers will act as regional centers for the local collection of ODS while one center will be in charge of the centralized final storage of the ODSs as well as of the destruction procedure.
The location of the centers will be as follows:

- Center 1: located in Algiers (North)

- Center 2: located in Constantine (East)
- Center 3: located between Hassi R´Mel and Hassi Messaoud (South)
- Center 4: located in Oran (West)
- National center: located in the Haut Plateaux (center)

The centralized center is expected to:

- receive cylinders of ODSs already collected in the four regional centers (see below);
- treat the end-of-life equipment;
- treat the foams received from the regional centers;
- store the store the cylinders with ODSs;
- arrange for the shipment to the destruction facility.

The center will be fully equipped for the full dismantling of the end-of-life appliances, including extraction of ODSs from the foams.
The plants for the recovery of the end-of-life electrical and electronic equipment (e.g. domestic and commercial fridges, air condition systems, chillers, washing machines) represents an advanced environmental solutions for the recovery of HCFCs and CFCs which are both substances that deplete the ozone layer and greenhouses gases with a negative impact on climate. The treatment of the end-of-life electrical and electronic equipment provides also the opportunity to recover other raw materials such as polyurethane, plastics, glass, ferrous metals and non ferrous metals as aluminum and copper. In addition the recovery of those substances has a positive impact in terms of the minor quantities of generated waste.

The regional recovery centers will be in charge for the collection of ODSs in liquid and gas forms and to put them in safe and thigh cylinders in order to prevent any leakages.
The centers will be in charge of collecting the refrigerants fluids from existing appliances identified above (i.e. industrial refrigerators, cold chambers, chalets, buildings, MAC, remaining stocks). Furthermore, the centers will collect refrigeration fluids from domestic refrigerators as well as recovery and extract foams (from appliances and other sources) to be send to the centralized center for treatment.

The transport of the cylinder containing ODSs as well as foam and equipment to the regional centers and from them to the centralized center and to the destruction facility will be done in strict observation of the existing laws regulating the transport of liquefied compressed gases and in accordance to all the safety procedures applicable to high pressure gas cylinders.

Selection of destruction technology

During the project preparation, additional information will be collected in order to select the most promising alternative for the destruction of the collected ODSs.
The selection of the technology will include the following consideration:

- Evaluation of cost-efficiency for the shipment to destruction facility in EU;
- Presence of existing plants in Algeria that could be converted or used for ODSs treatment;
- Break even point in terms of quantity of ODSs necessary to ensure sustainability to the project;
- Monitoring, inspection and verification procedures;
- Analysis of the financial operating model and the commercial viability of similar schemes;
- Confirmation of impact of regulatory and policy measures;
- Analysis of alternative funding schemes including carbon financing (see below for more details);
- Synergies with other environmental plans and strategies for the disposal of hazardous wastes.

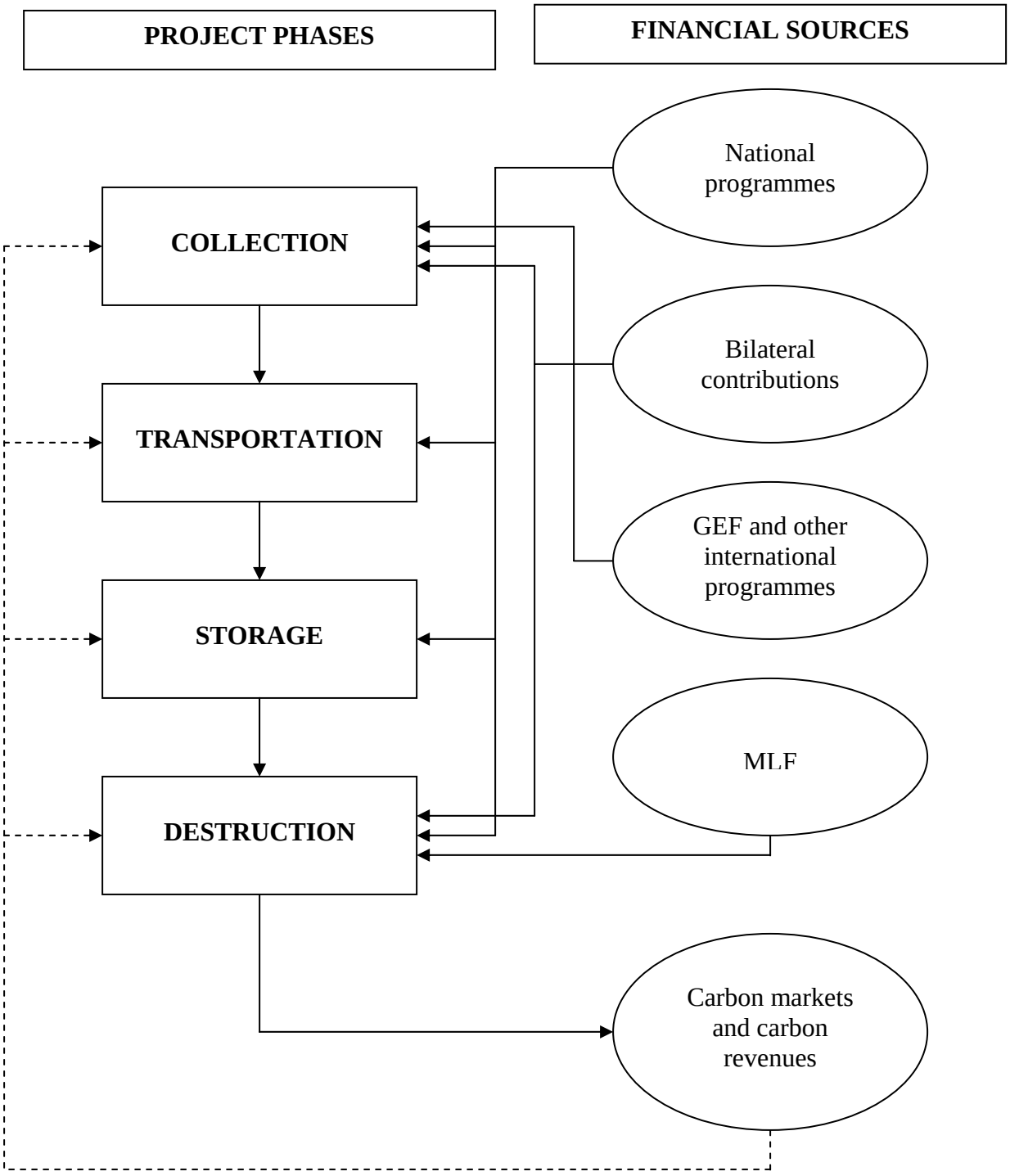
Funds mobilization

The project for the recovery, transportation and destruction of ODSs in Algeria will be designed in strict coordination with the HPMP preparation.
Indeed, the HPMP activities would involve servicing operations on existing equipment, which would be supported by the MLF.

Furthermore, the demonstration project will explore possibility to mobilize national sources as well as sources from international programmes, both multilateral and bilateral.

Finally, main attention will be put in the selection of the best opportunity to mobilize funds from the monetization of the climate benefits generated under this activity.

Overview of funds mobilization scheme



Project Concept

Country:	**The Republic of Cameroon**
Title:	Preparation of an ODS disposal pilot project
Project Duration:	12 months
ODS to be destructed (estimate):	27.35 tonnes
Project Budget:	US$ 40,000 plus US$ 3,000 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	Ministry of Environment and Protection of Nature (MEPN)

Project Summary

Following Decision XX/7 of the Meeting of the Parties, the Executive Committee decided at its 58th Meeting in July 2009 (Dec. 58/19) to fund a limited number of demonstration projects for the disposal of ODSs.

UNIDO received a government request from Cameroon to prepare a demonstration project for the disposal of ODSs.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Cameroon.

The two major sectors of the ODS destruction project, i.e. refrigerant servicing, end-of-life fridges and ACs de-manufacturing contribute to the 27.35 MT of ODSs, which will be destructed annually within the frame of the subject disposal project.

I. Background

Cameroon's baseline average consumption of Annex A, Group I substances amounted to 257 ODP tonnes. Halons' baseline consumption is 2.4 ODP tonnes. Cameroon has no CFC production.

In the past, the ODS consumption (CFC-11, CFC-12 and HCFC-22) occurred mainly in the flexible foam sub-sector and in the maintenance and repair of domestic and commercial refrigeration and stationery air-conditioning equipment.

Refrigerant servicing sector

Out of 257 ODP tonnes in the foam and refrigeration servicing sectors, the amount of 137 MT was consumed in 1999 and 2000 in the refrigeration servicing sector.

According to the RMP, 60% of CFCs recovered can be recycled and the annual quantity of recycled CFC-12 would be up to 28 tonnes per year when the RMP is fully operation (Source: Terminal CFC/TCA phase out plan for Cameroon). Assuming that 10% of this amount would be destructed, 2.8 MT can be destructed annually.

In 2001 in the commercial servicing refrigeration sector, the amount of 16.5 MT was used, MACs service and repair – 4.2 MT of CFCs and in the industrial refrigeration sector – 12.2 MT of CFCs. (Source: Terminal CFC/TCA phase out plan for Cameroon). Assuming that 10% of the amount of CFCs used for servicing purposes, we shall receive the amount of 3.3 ODP tonnes. Therefore, the total for the refrigeration and MAC servicing sector can be considered as **6.1** ODP tonnes.

Consumption of CFC-12 in domestic refrigeration (end-of-life refrigerators)

The total number of domestic refrigerators and freezers in Cameroon is estimated to be more than 2.000.000 units. No information is available on the number of Air Conditioning units.

If we take that the duration of life time of a refrigerator is 15-20 years we could assume that 100,000 refrigerators were to be annually disposed of. During the first year of the project implementation UNIDO wanted to introduce a Producer Responsibility Program in Cameroon dealing with the increase of the cost of imported or produced refrigerators in Cameroon to get funds for destruction of old fridges and ACs at the end of their operation. It would be easy to initiate the collection of at least 50,000 old refrigerators securing a slow increase in fridges collection up to 100,000. If we take into consideration 70-300g of CFC R-12 available in the cooling circuit and compressor (pre-treatment) and 200-800g CFC R-11 in the polyurethane foam insulation (final treatment) we could agree that after the recovery, one refrigerator could provide 230-1100g of CFCs, an average of about 850g. From 50,000 refrigerators we could recover 42.5 MT of CFCs bearing in mind that the technology available from SEG, Germany would allow us a recovery up to 98% of CFC-12. We have also to accept that only 50% of these refrigerators could have a full charge. As a result up to **21.25** MT of CFCs can be recovered per year. This figure could be higher in the first year of the project implementation and lower in

the consequent years.

We assume that the quantity of Halons from fire protection equipment will be minimal. The quantity of ACs is not known, therefore, the project will concentrate on the two major sectors, i.e. domestic refrigeration and commercial refrigeration's servicing sectors and CFC recovery and destruction from end-of-life domestic refrigerators.

Overall CFC quantities for annual destruction

The overall CFC quantities for annual destruction in refrigeration, MACs/ACs servicing sub-sectors and in end-of-life refrigeration/ACs sectors in Cameroon is as follows:

End-of-life refrigerators/ACs	21.25	MT
Servicing sector		
ACs/MACs and domestic/commercial refrigeration	6.1	MT
Total	**27.35**	**MT**

Project Concept

Country:	**The People's Republic of China**
Title:	Preparation of a CFC destruction pilot project for Shandong Province in China
Project Duration:	18 months
Project Budget:	US$ 85,000 plus US$ 6,375 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	Ministry of Environmental Protection MEP)

Project Summary

Following Decision XX/7 of the Meeting of the Parties the Executive Committee decided at its 58th Meeting in July 2009 (Dec. 58/19) to fund a limited number demonstration projects for the disposal of ODSs.

UNIDO received a government request from China to prepare a demonstration project for the disposal of ODSs.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Shandong Province China.

Background

Legal Framework

On 15 February 2009, the State Council of China issued the Regulation on the Recovery and Disposal of Waste Household Appliances and Electronic Equipment, which will come into effect on 1 January 2011.

The regulation sets out the requirements of the bill and the obligations of the central and local government and enterprises involved in disposal. The Ministry of Environmental Protection (MEP) is responsible for implementing the regulations, including the management and monitoring of the disposal of discarded appliances. It is stipulated that only authorized enterprises can conduct the disposal of waste appliances. Enterprises dealing with the disposal of household appliances must report the disposal data

to the local Environment Protection Bureaus (EPBs).

In addition to this, the State Council of China issued the Notice of Used Domestic Appliances and Automobiles Replacement on 1 June 2009. This bill aims to encourage the purchase of new domestic environmentally friendly appliances by providing financial incentive for consumers when purchasing new appliance or automobile if they recycle their old one. The regulation stipulates that discarded appliances and automobiles should be treated only by authorized enterprises in an environmentally friendly manner meeting the requirements of the respective regulations.

The scheme has been initiated in pilot provinces and cities as follows: Beijing, Shanghai, Shandong, Tianjin, Jiangsu, Zhejiang, Guangdong, Fuzhou and Changsha.

The regulations establish a legal framework and consumer incentive to dispose domestic electrical appliances in an approved manner. The collection and transport of the discarded household appliances, which meet the demands stipulated in the regulations, will be jointly funded by the central and the local government to cover part of the costs. ODS used in refrigeration appliances are required to be recovered and disposed of in accordance with the environmental protection requirements.

Shandong Province collection and destruction scheme

Established in 1994, Qingdao New World specializes in waste water and flue gas emissions control and diversified into solid waste disposal and hazardous waste treatment.
With government support, New World has established the Shandong Solid Waste Information Exchange and a collection and distribution network, which allows customers to trade used products and scrap materials.

In 2008, a specialized recycling plant was built in Qingdao to dismantle a range of discarded products including computers, televisions and domestic appliances, such as refrigerators, freezers and room air conditioners. Goods are dismantled on a number of processing lines and recyclable materials are recovered and sold. Non-hazardous waste is disposed of in landfill sites operated by the company and hazardous waste is disposed of in a new gas fired rotary kiln, which was installed in August 2008 and commissioned in 2009. Initial trials, which altogether destructed 25kg gaseous CFC-12 indicated that the kiln is capable of destroying CFC-11 and CFC-12.

The new dismantling plant is now on line and the collection network is beginning to feed significant numbers of appliances to the dismantling plant. According to a detailed survey carried out by

the Shandong Government and New World, the total number of refrigerators in use in whole Shandong province adds up to 19,500,000 units, among which about 3,510,000 are CFC-based. In view of the aging CFC refrigerators stock as well as the incentives introduced by the Government, a large portion of CFC-based refrigerators will be discarded in the coming 5-7 years. For this reason, it is necessary to take immediate actions to destroy the ODS contained in the appliances being discarded. The experience shows that the average CFC content of the discarded refrigerators amounts to 70g CFC-12 and 650g of CFC-11. In light of the above and taking into consideration a very conservative collection rate of 30% the destruction facility will need to be able to handle at least 150 tonnes of CFC-11 and CFC-12 per year.

New World is the only company appointed as recycling center for the discarded household appliances in Shandong Province. The majority of the required infrastructure for ODS destruction in Shandong province has been put in place including the legislative framework, rural and regional collection network and a central dismantling facility with a line specifically designed to deal with refrigerators, freezers and air conditioners.

The recycling enterprise is also generating revenue through the sale of recovered material. However, it is of tremendous difficulty for New World to cover all the costs related to requirements for the environment protection by the revenue. New World is very encouraged by the new incentives provided by the government for the collection of discarded appliances. This will ensure constant flow of disposed refrigerators, which constitutes a solid basis for the long-term sustainability of the project.

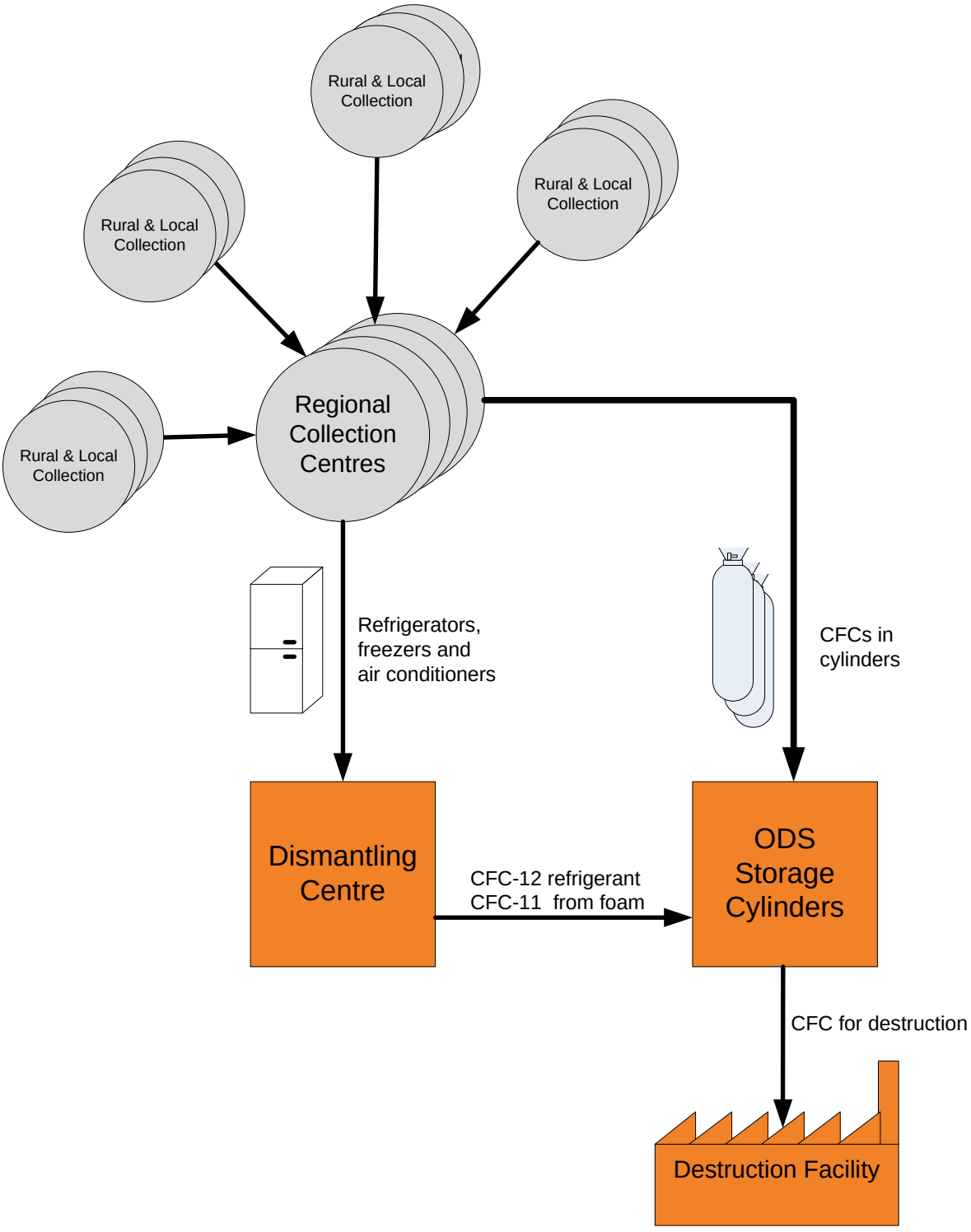
However, the current facility of New World is not able to withdraw CFC-11 from polyurethane insulation foam of the refrigerators. Tests have indicated that it is possible to destroy the foam as a whole in the existing kiln, however, the existing capacity is not sufficient to deal with all the wastes and ODSs being collected. Thus, New World also intends to upgrade its facilities to dispose CFC-11 contained in the insulation foam.

The Government of China is therefore keen to demonstrate an operating model of ODS destruction, which can benefit the environment to the possible largest extent by taking into full consideration the technical and financial conditions.

Project preparation funding is therefore sought to prepare a detailed demonstration project to make a full technical and economical analysis of the Shandong Provincial collection and destruction scheme and to prepare detailed proposals for:

- Detailed analysis of the ODS destruction capability of New World company;
- Upgrading of the existing facility at New World in a cost-effective way to ensure destruction of CFCs contained in refrigerators being discarded in Shandong Province;
- Development of detailed management criteria in order to regulate the process of ODS collection, transportation and destruction, including monitoring, inspection and verification procedures;
- Analysis of the financial operating model and the sustainability of ODS destruction;
- Analysis of alternative funding mechanisms including carbon financing.

Overview of collection, transport, storage and destruction scheme:



Project Concept

Country:	**The Republic of Egypt**
Title:	Preparation of an ODS disposal pilot project
Project Duration:	12 months
ODS to be destructed (estimate):	95.7 tonnes
Project Budget:	US$ 60,000 plus US$ 4,500 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	Egyptian Environmental Affairs Agency (EEAA)

Project Summary

Following Decision XX/7 of the Meeting of the Parties, the Executive Committee decided at its 58th Meeting in July 2009 (Dec. 58/19) to fund a limited number demonstration projects for the disposal of ODSs.

UNIDO received a government request from Egypt to prepare a demonstration project for the disposal of ODS, and is discussing possible bilateral cooperation with Japan for its implementation.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Egypt.

The three major sectors of the ODS destruction project, i.e. refrigerant servicing, end-of-life fridges and MAC de-manufacturing and halons servicing sector contribute to the 95.7MT of ODSs, which will be destructed annually within the frame of the subject disposal project.

I. Background

There are no specific laws regarding the collection of refrigerators and air conditioners in some areas in Egypt. The Egyptian legislation is very general, (http://www.eeaa.gov.eg/English/main/law4.asp, Art. 29-33 Law 4 and Art. 25-33 Regulations). However, since household appliances and electronic equipment have some hazardous waste, the hazardous streams are the ones which fall under the above articles in the

Law. Additionally, as stated in the Law, every Ministry should publish their own lists of hazardous wastes. For example, Ministerial Decree No. 176 of 2002 issued on 5/9/2002 by the Ministry of Industry specifically mentions electronic appliances and any hazardous streams from it. It covers the items which are related to appliances wastes:

15) Unclassified batteries;
16) Waste resulting from electric or electronic assembly processes or scrap containing elements of banned batteries and the switches with mercury conductors and glass tubes constructed by cathode rays and others activated glass and PCB condensers or condensers which are polluted by any of the hazardous elements with concentrations showing its hazardous properties;
21) Asbestos waste;
49) ***Waste containing or composing of CFCs.***

Egypt's baseline average consumption of Annex A, substances for the period from 1995 to 1997 amounted to 1,668 ODP tones. The country has always been in compliance with the Montreal Protocol control measures for CFCs since 1999.

Refrigerant servicing sector

Egypt has phased out all use of CFCs in the production of domestic refrigerators and freezers through 24 conversion projects implementing non-ozone depleting refrigerants and foam blowing agents. The biggest continuing use of CFCs was in the refrigeration service sector, which consumed approximately 704.0 tonnes including refrigerator manufacturing in 2004.

The refrigeration servicing sector in 2007 included commercial refrigeration in service shops consuming in 2004 215.7 MT of CFC-12, domestic refrigeration in service shop – 221.1 MT, refrigerated transportation - 45 MT, industrial refrigerators – 49.9 MT, chillers – 210.0 MT and MAC – 56.0 MT totaling 713.6 of CFC-12 in 2004 (source: the NPP in Egypt).

If the ODS disposal project is well organized with introduction of some incentives for the staff of the centralized ODS recovery facilities and bearing in mind that 5% of the whole annual demand would be destructed every year, the total estimate for destruction could be 713.6 x 0.05=**35.7** MT of CFC-12 in all sub-sectors. In the first year of the ODS disposal project a system for CFC-12 recovery and recycling needs to be established that would allow the collection of unwanted CFC-12 on the regular basis.

End-of-life fridges and MAC de-manufacturing sector

It is estimated that as of 2004 there were around 8 million CFC-based domestic refrigerators in operation. The proportion of non-CFC refrigerators was increasing rapidly due to the conversion of the manufacturing base, but approximately 800,000 to a million repairs to CFC-based units were carried out in 2004 (source: the NPP in Egypt).

If we take that the duration of life time of a refrigerator is 15-20 years we could assume that 400,000 refrigerators were annually disposed of. During the first year of the Project implementation, UNIDO wanted to introduce a Producer Responsibility Program in Egypt dealing with the increase of the cost of imported or produced refrigerators in Egypt to get funds for the destruction of old fridges at the end of their operation. It is easy to initiate the collection of at least 100,000 of old refrigerators, securing a slow increase in the collection of fridges up to 400,000.

If we take into consideration 70-300g of CFC R-12 available in the cooling circuit and compressor (pre-treatment) and 200-800g of CFC R-11 in the polyurethane foam insulation (final treatment) we can agree that the recovery of one refrigerator could yield 230-1100g of CFCs, an average of about 850g. From 100,000 refrigerators we could recovery 85 MT of CFCs bearing in mind that the technology available from SEG, Germany, would allow us a recovery up to 98% of CFC-12. We also have to accept that only 50% of these refrigerators could have a full charge. As a result, we could recover up to **42.5** MT of CFCs. This figure could be higher in the first year of the project implementation and lower in the consequent years.

Based on data provided by the transportation authorities in Egypt, there were 325,000 licensed vehicles with CFC air-conditioning in operation in 2004.

The average charge for a passenger car is between 0.9 and 1.5 kg. The NPP survey confirms that in 2004 about 60 tonnes of CFC-12 was used in servicing MAC systems only. Bearing in mind the life time span for MAC as 20 years we could assume that 325,000 : 20 = 16,250 MAC need to be destroyed every year, if one MAC has 50% charge we would have about **8.0** MT of CFC-12 to be recovered for destruction.

The total end-of-life fridges and MAC de-manufacturing_sector would provide about **50 MT** of CFCs per year for further destruction.

The European Directives on the Recovery and Disposal of Waste Household Appliances and Electronic Equipment would be used to develop similar ODS recovery and destruction procedures in Egypt. The regulation will set out the requirements of the bill and the obligations of the central and local governments and enterprises

involved in disposal of ODS-containing equipment. The Egyptian Environmental Affairs Agency (EEAA) Ministry of Environmental Protection (MEP) will be responsible for implementing the regulations, including the management and monitoring of the disposal of the waste appliance and only the authorized enterprises can conduct the disposal of the waste appliances. Enterprises dealing with the disposal of household appliances must report the data to local Environment Protection Bureaus (EPBs).

Halons servicing sector

The Halons baseline consumption in Egypt is 705 ODP MT of two Halons 1211 and 1301 or 120 ODS tonnes. We could consider the installed capacity of halons in Egypt as 120 ODS MT. According to the Danish Military Halons Centre 8-12% of the installed capacity could be considered for annual destruction. In our case **10.0** ODS MT could be considered for disposal of on the annual basis.

The project will deal with the destruction in the three sectors. They are:

1. Refrigerant servicing sector – 35.7 MT
2. End-of-life fridges and MAC de-manufacturing sector – 50 MT
3. Halons servicing sector -10 MT

Total – 95.7 MT of ODSs

II. Project scope

1. The future project for ODS destruction in Egypt will include the following chapters:
a) Unwanted ODS inventory
b) Status of Regulations on ODS Disposal
c) Assessment of ODS quantities for destruction in different sectors
d) Screened-in technologies and selection of destruction methods for ODS destruction
e) Training programme
f) Project cost analyses including the climate benefit component.

2. Unwanted ODS inventory

Surveys will be conducted on unwanted ODS in the specific use sectors (refrigerants and halons). Destruction of foams can be considered later on after collecting data on landfills. As a result of the surveys the project defines number of tonnes of unwanted ODS as per use sector excluding the foam sector. The

Central Halon Banking and Refrigerant Banking (RMP) facilities will be analyzed to define the quantities of ODS for destruction.

3. Status of Regulations on ODS Disposal

Sector-wise regulations (refrigerants, foams, halons, solvents, unwanted ODS, hazardous waste regulations and ODS destruction regulations). Destruction standards will be developed at the time of the ODS destruction project implementation.

4. Assessment of ODS quantities for destruction in different sectors

Each sector will be carefully studied and the European Directives on the Recovery and Disposal of Waste Household Appliances and Electronic Equipment would be used to develop similar ODS recovery and destruction procedures in Egypt. Finally a carbon trading mechanism would be applied to generate possible funds for project implementation, for which precise quantities of ODS need to be determined after the introduction of local legislation on the disposal of ODS-containing equipment.

5. Screened-in technologies and selection of destruction methods for ODS destruction

The selection of destruction equipment is based on its internal destruction capacity and the required number of tonnes to be destructed.

6. Training programme

A training programme needs to be developed, which brings all the elements of local ODS destruction, new local regulations on ODS destruction developed during the time of this project, and destruction methods.

7. Project cost analyses

The project costs include the costs of all the above components and equipment, whose destruction capacity will proportionally meet the ODS quantities (halons, CFC-11 and CFC-12) available in Egypt.

Project Concept

Country:	**The Islamic Republic of Iran**
Title:	Preparation of an ODS disposal pilot project
Project Duration:	12 months
ODS to be destructed (estimate)	97.45 tonnes
Project Budget:	US$ 60,000 plus US$ 4,500 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	Department of Environment (DoE)

Project Summary

Following Decision XX/7 of the Meeting of the Parties, the Executive Committee decided at its 58th Meeting in July 2009 (Dec. 58/19) to fund a limited number demonstration projects for the disposal of ODSs.

UNIDO received a government request from the Islamic Republic of Iran to prepare a demonstration project for the disposal of ODSs.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Iran.

The three major sectors of the ODS destruction project, i.e. refrigerant servicing , end-of-life fridges and MAC de-manufacturing and halons servicing sector contribute to the 97.45 MT of ODSs, which will be destructed annually within the frame of the subject disposal project.

I. Background

1. Refrigerant servicing sector

The national survey carried out within the preparation of the National CFC Phase out Plan for Iran, has estimated the CFC consumption in the refrigeration servicing sub-sectors as shown in the table below:

CFC consumption in the refrigeration servicing sectors in 2002, by sub-sector (Metric tonnes)

Sub-sector	Servicing
Mobile Air Conditioning	350.00
Commercial: Heavy duty commercial equipment, e.g., cold rooms, condensing units And light duty commercial equipment, e.g., show cases, freezers	135.00
Domestic: Domestic refrigerators and freezers	450.00
Total	935.00

Source: Iran's National CFC Phase-out Plan

The total number of commercial refrigerators in Iran need to be repaired is estimated to be 2 million units, 5% of which still run on CFC-12, with an average of 1.35 kg of CFC-12 per service. 135 MT of CFC-12 is required for servicing purposes and can be destructed. We can estimate that 5% of this quantity, **6.75** MT, needs to be destructed.

The CFC consumption in the servicing sector in 2002 was reported as 935.00, 450 tonnes were in the domestic refrigeration sector excluding MAC units. The fleets of CFC-based refrigeration equipment that are currently in use and are serviced on an annual basis consist of: (i) 1.6 million domestic refrigerators or about 8% of all units, requiring an average 250g CFC per service; (ii) 80,000 commercial -refrigerator units, or 20% of the total number would require about 1,000 g per unit; and (iii) all 1,500 industrial and large cold store units in the country, charged **twice** a year with an average of 100 kg per charge. Furthermore, there are an estimated 2,000 lorries and trucks that are equipped with cold rooms for carrying frozen foods, of which 20% have the CFC-12 refrigerant. These vehicles are charged **twice** a year with an average charge of 5.0 kg per unit.

The total number of domestic refrigerators in Iran is estimated to be 22 million, of which 25% (5,500,000) still run on CFC-12. The annual CFC consumption in the domestic servicing sector is 450 MT. Upon request from UNIDO the Department of Environment has confirmed that the total number of CFC-12 based domestic refrigerators in Iran needed to be repaired is estimated to be 825,000 units per year, and they likely require service with an average of 250g of CFC-12 per service. This results in total requirements of 206 metric tonnes of CFC-12 for servicing in the domestic refrigeration sub-sector. We could assume that 10% (about **20** MT) of this annual CFC consumption needs to be destructed.

In the MAC sector we have 700,000 mobile air conditioning units which still run on CFC-12. Assuming that the average amount of CFC used for each servicing procedure is 1.0 kg and that each car requires servicing every year, the total estimated amount of refrigerant needed for MAC servicing is estimated in 7.0 metric tonnes of CFC-12. And 10% of this amount, **0.7** MT would be destructed.

2. End-of-life fridges and MAC de-manufacturing sector

Assuming that the average amount of CFC used for each servicing procedure is 1.0 kg and that the life time span for cars could be accepted as 20 years we would have 35,000 pieces of MACs to be destructed every year. From 35,000 MACs we could recover 35 MT of CFCs bearing in mind that the technology available from SEG, Germany would allow us a recovery up to 98% of CFC-12. We do accept that only 50% of these MACs could have a full charge. As a result we could get up to **17.5** MT of CFCs to be recovered. This figure could be higher in the first year of the project implementation and lower in the consequent years.

As mentioned earlier, the total number of domestic refrigerators in Iran is estimated to be 22 million, of which 25% (5,500,000) still run on CFC-12. If we take that the duration of life time of a refrigerator is 15-20 years we could assume that 275,000 refrigerators were annually disposed of. During the first year of the project implementation UNIDO will introduce a Producer Responsibility Program in Iran dealing with the increase of the cost of imported or produced refrigerators in Iran to get funds for the destruction of old fridges at the end of their life. It would be easy to initiate the collection of at least 100,000 old refrigerators, securing a slow increase in the collection of fridges up to 275,000 within the frame of the project implementation.

If we take into consideration of 70-300g of CFC R-12, which are available in the cooling circuit and compressor (pre-treatment) and 200-800g CFC R-11 in the polyurethane foam insulation (final treatment) we could agree that after the recovery from one refrigerator, the yield could be around 230-1100g of CFCs, an average of about 850g. From 100,000 refrigerators we could recovery 85 MT of CFCs bearing in mind that the technology available from SEG, Germany would allow us a recovery up to 98% of CFC-12. We also have to accept that only 50% of these refrigerators could have a full charge. As a result we could recover up to **42.5 MT** of CFCs. This figure could higher be in the first year of the project implementation and lower in the consequent years.

The Department of Environment of Iran confirmed that at least about 660,000 of old refrigerators need to be de-manufactured on the annul basis. After introduction of the Producer Responsibility Program in Iran it would be possible to make final calculations on the quantity of old fridges to be destructed. However, it is understandable that UNIDO is considering more than 100,000 units based on the calculations above. However, the level of CFCs available in old fridges on average is not known so far. This can only be confirmed within one month's time of the pilot destruction project after the first batches have been destructed. Therefore, UNIDO considered the most conservative figure of 42.5 MT of CFCs for the destruction of 100,000 units in the end-of-life fridges de-manufacturing sector.

3. Halons servicing sector

Iran reported a consumption of zero ODP tonnes of halons in year 2008.
The consumption of halons in the I.R. of Iran was reported as 1,420 ODP tonnes in 2001. The consumption of 1,420 ODP tonnes, which is in line with the baseline, consists of 120 ODP tonnes of halon-1211, and 1,300 ODP tonnes of halon-1301. The Executive Committee approved at its 28th Meeting, in July 1999, the "National Halon Management Programme (NHMP) and the phase-out impact of the project was estimated at 2,434 ODP tonnes".

According to Iran's Country Programme Update (CPU) approved in 2003, approximately one third of halon consumption in the I.R. of Iran is for the Defense Department, and the rest is in large and commercial buildings. The critical users of halon in the I.R. of Iran are defense, civil aviation, shipping, power supply, oil and gas industry and telecommunication. There are also some charging and servicing centers, which are responsible for manufacturing and servicing fire extinguishers.

According to Iran's Halon Banking Center, about 30%-50% of the annual halon consumption of halons for refilling the fire protection units or systems can be considered for destruction purposes. The same figure of 30%-50% was confirmed to UNIDO by other Halon Banking Centers. If the total installed capacity in Iran is 2.55 tonnes of Halon 1211 in 2007 and 21.54 tonnes of Halon 1301, about **7.0-10.0** ODS MT can be considered every year for destruction as figures confirmed by the Halon Banking Center in Iran.

The project will deal with the destruction in the three sectors. They are:
1. Refrigerant servicing sector (Domestic refrigeration) – 20.0 MT

2. Refrigerant servicing sector (Commercial refrigeration) – 6.75 MT
3. MAC servicing sector – 0.7 MT
4. End-of-life fridges de-manufacturing sector – 42.5 MT
5. MAC de-manufacturing sector – 17.5 MT
6. Halons servicing sector – 10.0 MT

Total – **97.45 MT** of ODSs

II. Project strategy

The future project for ODS destruction in Iran will include the following chapters:
a) Unwanted ODS inventory
b) Status of Regulations on ODS Disposal
c) Assessment of ODS quantities for destruction in different sectors
d) Screened-in technologies and selection of destruction methods for ODS destruction
e) Training programme
f) Project cost analyses including the climate benefit component.

2. Unwanted ODS inventory

Surveys will be conducted on unwanted ODS in the specific use sectors (refrigerants and halons). Destruction of foams can be considered later on after collecting data on landfills. As a result of the surveys the project defines number of tonnes of unwanted ODS as per use sector excluding the foam sector. The Central Halon Banking and Refrigerant Banking (RMP) facilities will be analyzed to define the quantities of ODS for destruction.

3. Status of Regulations on ODS Disposal

Sector-wise regulations (refrigerants, foams, halons, solvents, unwanted ODS, hazardous waste regulations and ODS destruction regulations). Destruction standards will be developed at the time of the ODS destruction project implementation.

4. Assessment of ODS quantities for destruction in different sectors

Each sector will be carefully studied and the European Directives on the Recovery and Disposal of Waste Household Appliances and Electronic Equipment would be used to develop similar ODS recovery and destruction procedures in Iran. Finally a carbon trading mechanism would be applied to generate possible funds for project implementation, for which precise quantities of ODS need to be determined after the introduction of local legislation on the disposal of ODS-containing equipment.

5. Screened-in technologies and selection of destruction methods for ODS destruction

The selection of destruction equipment is based on its internal destruction capacity and the required number of tonnes to be destructed.

6. Training programme

A training programme needs to be developed, which brings all the elements of local ODS destruction, new local regulations on ODS destruction just developed during the time of this project, and destruction methods.

7. Project cost analyses

The project costs will include the costs of all the above components and equipment, whose destruction capacity will proportionally meet the ODS quantities (halons, CFC-11 and CFC-12) available in Iran.

Project Concept

Country:	**Nigeria**
Title:	Preparation of ODS disposal demonstration project
Project Duration:	12 months
Project Budget:	US$ 60,000 plus US$ 4,500 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	**NOO,** Ministry of Environment

Project Summary

Following Decision XX/7 of the Meeting of the Parties, the Executive Committee decided at its 58th Meeting in July 2009 (Dec. 58/19) to fund a limited number of demonstration projects for the disposal of ODSs.

UNIDO received a government request from Nigeria to prepare a demonstration project for the disposal of ODSs.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Nigeria.

Background

In line with the Criteria and Guidelines for the selection of ODS disposal projects and provisions for the requests on project preparation funding set up by the ExCom Decision 58/19, paragraph (iv) the Government has submitted the following information and data.

It has been anticipated that the ODS disposal demonstration project to be developed will include activities related to ODS collection, transportation, storage and delivery to the destruction facility.

For the time being there is the Africa Stockpile Program (ASP) funded by CIDA. The program has a three-year span and is designed to identify Nigeria's needs on obsolete chemicals disposal to prevent further accumulation of obsolete pesticides in the country. There is also a UNDP project proposal on Energy Efficiency and Climate Change pending approval and funding by GEF. A similar

project in Ghana has an ODS disposal component. A synergy with ASP and the GEF project would be possible.

There are two main ODSs, which are suggested to be handled under the ODS disposal demonstration project, namely: CFC-12 refrigerant and halons.

The main source of CFC-12 is located in the refrigeration installations of the oil industry. A pilot project implemented at one of the oil companies had identified an installed stock of about 15 MT of CFC-12 from which 500 kg have been already recovered and stored for the subsequent destruction. There are another 5 similar oil companies with the estimated stock of 80 MT of CFC-12. It has to be noted that all installations in the oil industry have been converted to non-ODS technology. Thus, for the time being about 95 MT of CFC-12 is available for recovery, storage, transportation and destruction.

It is expected that additional quantities of CFCs for destruction can be collected from the refrigeration servicing sector after the completion of the on-going RMP project, which is providing the respective training to the refrigeration service technicians followed by distribution of R&R equipment among the national Refrigeration Associations.

The survey carried out in 2003/2004 identified a significant stock of halons installed in the fire fighting equipment. The established halon bank is designed for recovery/recycling of halon-1301 for essential use. According to the established inventory there is an installed stock of 200 MT of halon-1301. The respective TEAP's report estimates that about 80% of halons in the African region are too contaminated for recycling. Thus, at least 150 MT of halon-1301 are expected to be handled under the ODS disposal project.

The halon bank does not process halon-1211. However, the cylinders charged with halon-1211 are collected and stored for the subsequent destruction. Based on the findings of the survey mentioned above, the installed stock of halon-1211 is about 300 MT.

Project Strategy

The project will deal with the destruction in the following sectors:

1. Oil industry – 95 MT
2. Refrigeration, air-conditioning and MAC servicing sector – **to be determined**
3. Halon servicing sector - 450 MT

Total – about **545 MT** of ODSs.

The future project for ODS destruction in Nigeria will include the following chapters:

a) Unwanted ODS inventory
b) Status of Regulations on ODS Disposal
c) Assessment of ODS quantities for destruction in different sectors
d) Screened-in technologies and selection of destruction methods for ODS destruction
e) Training program
f) Project cost analyses including the climate benefit component.

Project Concept

Country:	**The Syrian Arab Republic**
Title:	Preparation of an ODS disposal pilot project
Project Duration:	12 months
ODS to be destructed (estimate)	81.55 tonnes
Project Budget:	US$ 60,000 plus US$ 4,500 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	Ministry of Local Administration and Environment (MLAE)

Project Summary

Following Decision XX/7 of the Meeting of the Parties the Executive Committee decided at its 58th Meeting in July 2009(Dec. 58/19) to fund a limited number of demonstration projects for the disposal of ODSs.

UNIDO received a government request from Syria to prepare a demonstration project for the disposal of ODSs.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Syria.

The three major sectors of the ODS destruction project, i.e. refrigerant servicing, end-of-life fridges and MAC de-manufacturing and halons servicing sector contribute to the 81.55 MT of ODSs, which will be destructed annually within the frame of the subject disposal project.

I. Background

Syria's baseline average consumption of Annex A, Group I substances for the period from 1995 to 1997 amounted to 2,224.65 ODS tonnes.

Refrigerant servicing sector

The estimation regarding existing CFC-based equipment in operation in 2004 throughout the country has provided following results:

- *domestic refrigerators and freezers; 4,000,000 units*
- *commercial refrigeration units ; 300,000 units*
- *air conditioners; 150,000 units*
- *transport refrigeration units; 3,000 units,*
- *industrial refrigerators and chillers with CFC; 800 units (200 units with CFC-12),*
- *MAC with CFC-12; 300,000 units (total number of vehicles; 600,000)*

a. Consumption of CFC-12 in domestic refrigeration (end-of-life refrigerators): The total number of domestic refrigerators and freezers is more than 4.000.000 units. Assuming that approximately 15 percent of these units require service annually, and that each unit consumes about 300g of CFC-12 in the process of recharging, the total CFC-12 consumption in domestic refrigeration servicing is 180 tonnes. Assuming that 10% will be destructed annually, that amounts to **18.0 MT**.

If we take that the duration of life time of a refrigerator is 15-20 years we could assume that 200,000 refrigerators were annually disposed of. During the first year of the Project implementation UNIDO wanted to introduce a Producer Responsibility Program in Syria dealing with the increase of the cost of imported or produced refrigerators in Syria to get funds for the destruction of old fridges at the end of their operation. It is easy to initiate the collection of at least 100,000 of old refrigerators, securing a slow increase in fridges collection up to 200,000.

If we take into consideration of 70-300g CFC R-12 which are available in the cooling circuit and compressor (pre-treatment) and 200-800g CFC R-11 in the polyurethane foam insulation (final treatment) we can agree that the recovery of one refrigerator could yield 230-1100g of CFCs, an average of about 850g. From 100,000 refrigerators we could recovery 85 MT of CFCs bearing in mind that the technology available from SEG, Germany, would allow us a recovery up to 98% of CFC-12. We have also to accept that only 50% of these refrigerators could have a full charge. As a result we could get up to **42.5** MT of CFCs to be recovered. This figure could be higher in the first year of the project implementation and lower in the consequent years.

b. Consumption of CFC-12 in commercial and transport refrigeration: This sub-sector includes the use of CFCs as refrigerant in display cabinets, food storage equipment, transport refrigeration (containers) and commercial cold storage facilities. Commercial refrigeration is crucial to Syria since it is primarily used for food storage and transport. The total number of 300,000 food stores, chest freezers, display cabinets, cold rooms and other commercial refrigeration units are in operation. Assuming that 10 percent of the total is to be serviced annually, each unit requiring an average 0.75 kg of CFC-12 in the process of recharging, the total amount of CFC-12 consumed annually in the commercial sub sector is 22.5 tonnes. Also assuming that 10% of this annual consumption needs to be destructed, the final amount is **2.25** MT.

c. Consumption of CFC in industrial refrigeration sub-sector: Chillers and industrial refrigerators are providing large centralized cooling services, and are usually used for cooling for industrial processes. They are also used for air conditioning in larger buildings, installed in different industries, hospitals, hotels, commerce buildings and others. The majority of these units are between 15 and 20 years old and most of them are expected to reach the end of their operational lifetimes beyond 2010. Due to poor maintenance, these units could be a source of leaks and may need special attention in future NPP. The survey estimated that about 200 industrial refrigerators and 21 chillers with CFC-12 are in use in Syria, with overall annual consumption of about 40 tonnes of CFC-12 for maintenance and servicing. The estimated CFC consumption for industrial service including chillers is 40 ODP tonnes and 10% will be considered for destruction, **4.0** MT.

d. Consumption of CFC-12 in mobile air-conditioning (MAC) sub-sector: Based on data provided by the transportation department, there were approximately 600,000 registered vehicles in Syria in 2004. It is estimated that half of this number is equipped with air conditioner using CFC-12 and require annual service. Knowing that each unit requires 1.3 kg of CFC-12 for recharging service, the annual consumption of CFC-12 in this sub-sector is around 78 tonnes. As 10% is estimated for destruction, that amounts to **7.8** MT. Almost all vehicles with MAC and MAC for local assembly after 1999 are using HFC-134a.

Halons servicing sector

Syria has already phased out the consumption of Halons with assistance from the Multilateral Fund through establishing a Halon bank. The Halons baseline consumption in Syria was about 420 ODP MT of two Halons 1211 and 1301, 40 ODS tonnes of Halon 1211 and 30 ODS tonnes of Halon 1301, respectively. We could consider the installed capacity of halons in Syria as 70 ODS MT. According to the Danish Military Halons Centre 8-12% of the installed capacity could be considered for annual destruction. In our case **7.0** ODS MT could be considered for disposal of on the annual basis.

Overall CFC quantities for annual destruction

The overall CFC quantities for annual destruction in refrigeration, AC/Mac and halon servicing sub-sectors and in end-of-life refrigeration sector in Syria could be confirmed as:

End-of-life refrigerators	42.5 MT
Servicing sector	
Domestic refrigeration	18.0 MT
Commercial and transportation refrigeration	2.25 MT
Industrial refrigeration	4.0 MT
Mac sector	7.8 MT
Halon servicing	7.0 MT
Total	**81.55 MT**

II. Project scope

The future project for ODS destruction in Syria will include the following chapters:

a) Unwanted ODS inventory
b) Status of Regulations on ODS Disposal
c) Assessment of ODS quantities for destruction in different sectors
d) Screened-in technologies and selection of destruction methods for ODS destruction
e) Training programme
f) Project cost analyses including the climate benefit component.

2. Unwanted ODS inventory

Surveys will be conducted on unwanted ODS in the specific use sectors (refrigerants and halons). Destruction of foams can be considered later on after collecting data on landfills. As a result of the surveys the project defines number of tonnes of unwanted ODS as per use sector excluding the foam sector. The Central Halon Banking and Refrigerant Banking (RMP) facilities will be analyzed to define the quantities of ODS for destruction.

3. Status of Regulations on ODS Disposal
Sector-wise regulations (refrigerants, foams, halons, solvents unwanted ODS, hazardous waste regulations and ODS destruction regulations). Destruction standards will be developed at the time of the ODS destruction project implementation.

4. Assessment of ODS quantities for destruction in different sectors

Each sector will be carefully studied and the European Directives on the Recovery and Disposal of Waste Household Appliances and Electronic Equipment would be used to develop similar ODS recovery and destruction procedures in Syria. Finally a carbon trading mechanism would be applied to generate possible funds for project implementation, for which precise quantities of ODS need to be determined after the introduction of local legislation on the disposal of ODS-containing equipment.

5. Screened –in technologies and selection of a destruction methods for ODS destruction

The selection of destruction equipment is based on its internal destruction capacity and the required number of tonnes to be destructed.

6. Training programme
A training programme needs to be developed, which brings all the elements of local ODS destruction, new local regulations on ODS destruction developed in the time of this project, and destruction methods.

7. Project cost analyses
The project costs include the costs of all the above components and equipment, whose destruction capacity will proportionally meet the ODS quantities (halons, CFC-11 and CFC-12) available in Syria.

Project Concept

Country:	**Algeria**
Title:	Preparation of investment projects for the phase-out of HCFCs in the refrigeration, A/C and foam manufacturing sectors
Project Duration:	12 months
Project Budget 1:	64,500 (including 7.5% Agency Support Costs) for the refrigeration and Air-to-Air AC sectors
Project Budget 2:	43,000 (including 7.5% Agency Support Costs) for the foam sector
Implementing Agency:	UNIDO
Coordinating Agency:	National Ozone Bureau - Ministère de l'Aménagement du Territoire de l'Environnement

Project Summary

Algeria's reported HCFCs consumption for the year 2007 was 12.1 ODP tonnes including consumption of HCFC-22 and HCFC-141b. Algeria is therefore eligible for receiving up to US$ 100,000 for the preparation of investment projects for the phase out of HCFCs in the manufacturing sector.

Algeria has not yet received funds for the preparation of investment projects for the HCFC phase out and it was agreed with the Government that all the eligible funds would be allocated to address the refrigeration, air-conditioning and foam manufacturing sectors under UNIDO's responsibility.

A recent survey confirmed that the HCFC consumption in the manufacturing sectors is for the production of HCFC based equipment in the AC, commercial and domestic refrigeration sectors as well as producing foam. The survey confirmed indeed that there are several companies involved in the mentioned manufacturing sectors. Although the HCFC survey has not yet been completed and it will be finalized during the preparation of the HCFC phase-out management plan, the Government estimated significant HCFC consumption in all the mentioned sectors.

Funding will be used to prepare investment activities addressing the refrigeration, air-conditioning and foam manufacturing sectors, which is in line with the HPMP under development. Investment projects will be prepared to help Algeria to achieve the 2013 and 2015 reduction targets in line with the priorities established in the HPMP.

Project Concept

Country:	**The People's Republic of China**
Title:	Technology demonstration project for HC blowing agent in the XPS sector
Project Duration:	18 months
Project Budget:	US$ 30,000 plus US$ 2,250 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	Ministry of Environmental Protection (MEP)

Project Summary

The extruded polystyrene board (XPS) sector is experiencing a rapid development in China. It is estimated that there are currently about 500 XPS enterprises with about 800 production lines. The XPS production capacity amounts to approximately 8 million cubic meters consuming thirty thousands tons of HCFC. The products are used for building insulation.

The recent survey carried out in the framework of the preparation of the HPMP and the ensuing technical workshop held in Beijing in September revealed the following problems encountered by the industry in China:

1. The enterprises consider CO_2 technology, which is used in many developed countries;

2. The advantage of CO_2 technology is the very low GWP of the foaming agent, thus it is a long term solution;

3. However, the CO_2 technology is very complex and requires extended technical skills and expensive new equipment to accommodate the high pressure of CO_2 blowing agent. Furthermore, the thermal insulation of the CO_2 blown foam does not reach the one of the HCFC-22/HCFC-142b blown foams and there is a significant aging of insulation and strength after a short period of time. It is also very difficult to produce board with thicknesses above 60 mm;

4. Most of the XPS enterprises in China use high ratio of recycled materials of sometimes poor quality for XPS

production. The CO_2 technology seems to be sensitive in this respect.

5. In contrast to the practice of many developing countries, Japan elaborated a hydrocarbon (HC) technology and the entire XPS board sector in Japan has been converted to hydrocarbon (isobutane) many years ago;

6. The hydrocarbon technology is also a final solution; the GWP of isobutane is 4. The Japanese experience shows that the insulation properties of HC blown XPS foam boards are 10% better than the same of the CO_2 blown ones; ageing is negligible and thicker boards can be produced as well. The equipment itself is not much different from the current one;

7. However, isobutane is a flammable material, which requires appropriate precautions and safety modifications and equipment in the storage, transportation, handling and processing of the blowing agent.

8. A further problem is the flammability of the product, which however can be controlled by appropriate fire retardant additives (similar ones need to be used for CO_2 blown foams as well, due to the methanol used as co-blowing agent).

9. The fire safety regulations of China are quite stringent, which might constitute an additional problem.

10. Selected and controlled recycled materials are used in Japan or XPS production.

11. XPS manufacturers in China don’t use hydrocarbon-related mixtures, especially hydrocarbon alone as blowing agents.

12. In view of the diversity of producers in China, which include large but also many small and medium scale enterprises operating in various conditions, it is reasonable to investigate the advantages and adaptability of HC technology in the XPS board production sector.

In view of the above, a demonstration project is proposed to help in the selection of appropriate technology for the phase out of HCFCs in the sector.

The said project is aimed to demonstrate the application of hydrocarbon or hydrocarbon mixture as substitutes of HCFCs blowing agents.

An existing XPS manufacturer will be selected to implement this

project.

UNIDO will approach Japanese industry to assist in the technological and fire safety issues, including streamlining of standards and regulations.

The project activities/cost will consist of the following:

- Technology development and validation;
- Installation of hydrocarbon storage tank and handling equipment;
- Retrofitting and/or replacing parts of existing foaming equipment for the use of hydrocarbon;
- Installation of safety equipment;
- Technical assistance and training;
- Trial production, testing, field trials.

Information of the candidate enterprise:
Name: Shanghai Xinzhao Co.Ltd.
Location: Shanghai
Year of establishment: 2002

Project Concept

Country:	**Pakistan**
Title:	Preparation of investment activities for the phase-out of HCFCs in the PU Foam and Refrigeration manufacturing sectors
Project Duration:	12 months
Project Budget 1:	US$ 129,000 (incl. 7.5% Agency Support Costs) for the refrigeration manufacturing and A/C sectors
Project Budget 2:	US$ 86,000 (incl. 7.5% Agency Support Costs) for the Foam sector
Implementing Agency:	UNIDO
Coordinating Agency:	Ministry of Environment of Pakistan - National Ozone Cell

Project Summary

Pakistan's 2007 consumption of HCFCs according to Article 7 report amounted to 183.7 ODP tonnes. With this, Pakistan is a country with an annual consumption higher than 100 ODP tonnes.

Pakistan received U$ 150,000, split between UNIDO and UNEP, for HPMP preparation. Preliminary results of the survey confirmed that there is high consumption of HCFC 141b in the foam and refrigeration manufacturing sectors and HCFC 22 in the refrigeration (air conditioning) manufacturing sector.

19 companies were so far identified consuming HCFC 141b and HCFC 22 in the refrigeration manufacturing sectors (domestic and commercial refrigeration, air conditioning). Twenty companies have been identified in the PU insulation foam manufacturing sector, consuming HCFC 141b.

Visited manufacturing companies, Haier, Varioline, Shadman Electronics, Pakistan insulation – Eagle Star were found eligible for funding and hence immediately nominated to be potential project beneficiaries under HPMP. Total consumption of HCFC 141b only at these initially verified production facilities has been estimated at the level of 110, 5 MT of HCFC 141b.

Based on the 2007 Country Programme data the following sector HCFC-

consumption (in metric Tonnes) is reported.

	Manufacturing Foam sector	Manufacturing Refrigeration sector	Refrigeration servicing sector	Total
Annex C Group I				
HCFC-22	-	1,831.6	282.2	2,113.8
HCFC-141b	613	-		613
HCFC-123				
HCFCs Total Consumption	613	1,831.6	282.2	**2,726.8**

Based on the reported consumption and the above facts, Pakistan is eligible for funding for the preparation of investment projects for the phase out of HCFCs in the manufacturing sectors.

In order to ensure that Pakistan meets the 2013 and 2015 HCFC reduction targets urgent actions are required in the manufacturing sectors.

The Government of Pakistan requested UNIDO to submit funding requests for the preparation of sector plans for the following sectors:

- PU Foam sector
- Refrigeration manufacturing sector

Sector strategies and investment projects will be prepared by UNIDO in cooperation with the government institutes to enable Pakistan to achieve the 2013 freeze as well as the 2015 reduction target.

Project Concept

Country:	**South Africa**
Title:	Preparation for the phase out the use of HCFC- 22 and HCFC- 141b in the polyurethane foam sector
Project Duration:	12 months
Project Budget:	US $150,000 plus US $11,250 agency support cost
Implementing Agency:	UNIDO
Coordinating Agency:	Department of Environmental Affairs

Background

In September 2007 the Parties to the Montreal Protocol at their Nineteenth Meeting agreed to accelerate the phase-out of production and consumption of HCFCs by 10 years as per Decision XIX/6. The September 2007 adjustments to the Montreal Protocol oblige countries to take action as soon as possible to freeze their base line HCFC production and consumption levels (average of the years 2009-2010) in 2013, and reduce by 10 percent their production and consumption of HCFCs by 2015.

The Executive Committee, in its decision 54/39, established clear guidance on how to proceed with investment projects addressing HCFC phase out;

For countries that chose to implement investment projects in advance of completion of the HPMP:

(i) The approval of each project should result in a phase-out of HCFCs to count against the consumption identified in the HPMP and no such projects could be approved after 2010 unless they were part of the HPMP;

(ii) If the individual project approach was used, the submission of the first project should provide an indication of how the demonstration projects related to the HPMP and an indication of when the HPMP would be submitted;

The Government of South Africa is currently finalizing the HPMP, however in order to meet the 2013 freeze and 2015 reduction steps it will be necessary to take urgent action to curtail HCFC consumption. In this respect UNIDO has received a government

request from the Republic of South Africa to identify potential projects which will form part of the HPMP currently being formulated that can be initiated ahead of the approval of the HPMP. This paper sets out a proposal for project preparation for HCFC phase out projects in the foam sector

Project Summary

The project aims to identify a number of suitable projects in the polyurethane foam production sector that will allow South Africa to meet its Montreal Protocol phase out obligations in respect of HCFCs; the 2013 freeze target and the and 2015 first reduction target.

An initial assessment of the sector has identified 17 potential project counterparts (Table 1) in the foam production sector manufacturing a range of products including

- Rigid insulation panels
- Domestic appliance insulation
- Rigid polyurethane slab stock
- Display cabinets
- Integral skin foams
- Rigid moulded foam components
- Buoyancy aids
- Systems house.

The total HCFC consumption (in 2008) of the enterprises identified was approximately 1,300 metric tonnes of HCFC-141b and 1,230 tonnes of HCFC-22.

The project proposes a fully integrated approach to the assessment of HCFC alternatives for ODS phase out with the use of low-GWP alternatives for the investment component. This will require detailed life cycle climate impact analysis of technical alternatives particularly in refrigeration and air conditioning, taking into account the potential climate benefits of the adoption of more energy efficient technology.

The technology being considered includes hydrocarbon and methyl formate and blends.

Project preparation funds are requested to make a detailed assessment of each of the potential counterpart enterprises with the aim of identifying a number of projects which will phase out HCFC-141b and HCFC-22 in the foam sector, thereby ensuring compliance with Montreal Protocol targets.

Table 1 Initial Assessment of Polyurethane Foam production Sector in South Africa

	Name of Company	Location	Description of Products and Services	Consumption in 2008/ MT		Type of foaming machines in use
				HCFC-141b consumption 2008 /MT	HCFC-22 consumption 2008 /MT	
1	Industrial Urethanes	Kempton Park, Johannesburg	Rigid Insulation	200	600	HP, LP
2	CHC Elastogran	Elandsfontein, Johannesburg	polyurethanes	40	200	HP
3	Owen Corning	Johannesburg		30	0	HP
4	Aerothane Applications	Cape Town		50	0	HP
5	Iso Foam	Cape Town		80	0	HP
6	I.U.	Durban	System House	480	200	Blenders
7	Whirlpool	Durban	Appliance	150	70	HP
8	Zero	JHB	Appliance	5	0	HP
9	Defy	Durban	Appliance	160	80	HP
10	Just	Durban	Panel	20	10	LP
11	Kwikspace	Johannesburg	Panel	20	10	LP
12	Insulated	Johannesburg	Panel	18	10	LP
13	Concorde	Durban	Display	10	5	LP
14	Harveys	Port Elizabeth	Gen. Moulding	10	5	LP
15	J. Maserow	Johannesburg	Simulated Wood	10	5	LP
16	Europlastifoam	Pretoria	Integral Skin	5	0	LP
17	Bumbo Limited	Rosslyn, Gauteng	Integral Skin	20	5	HP
			Total	1308	1200	

Project Concept

Country:	Sudan
Title:	Preparation of investment activities for the phase-out of HCFCs in the PU Foam sector and Refrigeration manufacturing sector
Project Duration:	12 months
Project Budget 1:	US$ 43,000(incl. 7.5% Agency Support Costs) for the PU Foam sector
Project Budget 2:	US$ 64,500 (incl. 7.5% Agency Support Costs) for the Refrigeration manufacturing sector
Implementing Agency:	UNIDO
Coordinating Agency:	Ministry of Industry of Sudan - National Ozone Unit

Project Summary

Sudan's 2007 consumption of HCFCs according to Article 7 report amounted to 8.6 ODP tonnes.

Sudan is one of the countries, which had not been reporting HCFC consumption before 2007. Thus according to the Decision 56/16 c) the country received only US$ 30,000 to prepare an HPMP. UNIDO initiated the preparation of the HPMP subsequently. The preliminary results of the survey are indicating that there is a significant consumption of HCFC 141b in the foam and refrigeration production sectors and HCFC 22 in refrigeration servicing sector.

UNIDO fact finding visits were organized to domestic refrigerators & freezers producing companies and also to rigid PUR sandwich panels manufacturing companies.
Three production lines of Amin Factories for Insulation Panels and two production companies operating in the sector of domestic refrigeration, Modern Refrigeration Company and Coldair Engineering Company were found eligible for funding and hence immediately nominated to be potential project beneficiaries under the HPMP. Total consumption of HCFC 141b only at these initially identified production facilities has been estimated at the level of 150 MT of HCFC 141b.

In order to ensure that Sudan meets the 2013 and 2015 HCFC reduction targets urgent actions are required in all manufacturing sectors.

The Government of Sudan requested UNIDO to submit funding requests for the preparation of investment projects in the following sectors:

- PU Foam sector
- Refrigeration manufacturing sector

Based on the reported consumption, according to the Decision 56/16 d), Sudan is eligible for investment preparation funding in total amount of U$ 100,000 for the preparation of investment projects to phase out HCFCs from the manufacturing sectors, to achieve the 2013 and 2015 control targets.

An assessment of the country consumption data shows that 90% of the HCFCs consumption in Sudan is used for the production of insulating material in the refrigeration and PU insulation panels manufacturing sectors and for this reason, a sector strategic approach is critical in achieving the consumption reduction steps.

Sector strategies and investment projects will be prepared by UNIDO in cooperation with the Governmental institutions support, to enable Sudan to achieve the 2013 freeze as well as 2015 reduction target, in line with the priorities of the HPMP.

Project concept

Additional funding for HPMP preparation

Country: Ecuador, Iraq, Pakistan, Philippines and Sudan

Title: Additional funding for HPMP preparation

Project Duration: 12 months

1) Project budget Ecuador: US$ 80,625 (including 7.5% Agency Support Costs of US$ 5,625)

2) Project Budget Iraq: US$ 69,875 (including 7.5% Agency Support Costs of US$ 4,875)

3) Project Budget Pakistan: US$ 48,375 (including 7.5% Agency Support Costs of US$ 3,375)

4) Project Budget Philippines: US$ 75,250 (including 7.5% Agency Support Costs of US$ 5,250)

5) Project Budget Sudan: US$ 129,000 (including 7.5% Agency Support Costs of US$ 9,000)

Implementing Agency: UNIDO

Coordinating Agency: National Ozone Units

Project Summary

In response to Decision 56/16 UNIDO is submitting three requests for additional funds for the HPMP preparation in Iraq, Pakistan and Sudan. In addition, the Government of Ecuador decided that it wished to change the implementing agency for HPMP implementation to UNIDO and UNEP.

1) Ecuador received US$ 150,000 through the World Bank for HPMP preparation at the 55th ExCom Meeting. On 8 September 2009, the Government of Ecuador has informed the MLF Secretariat about its decision to changes the implementing agency to UNEP and UNIDO. In light of the above, UNIDO is requesting US$ 75,000 for the preparation of the HPMP in Ecuador. UNEP is requesting the same amount of funding.

2) Iraq received US$ 30,000 through UNIDO for HPMP preparation at the 55th ExCom Meeting based on zero HCFC consumption reported at that time. Iraq has completed its country programme preparation including HCFC consumption. Based on the reported consumption of over 100 ODP tonnes, Iraq is eligible for additional US$ 165,000 for HPMP preparation in line with ExCom Decision 56/16. It has been agreed with the Government of Iraq and UNEP that UNIDO would request at the 59th ExCom Meeting US$ 65,000, while UNEP would request the remaining US$ 100,000.

In light of the above, UNIDO is requesting US$ 65,000 plus support cost as additional HPMP preparation funding for Iraq.

3) Pakistan's 2007 consumption of HCFCs according to Article 7 report amounted to 183.7 ODP tonnes. With this, Pakistan is a country with annual consumption higher than 100 ODP tonnes. As per Decision 56/16, Pakistan is eligible for HPMP preparation funding amounting to US$ 195,000. Pakistan received in total U$ 150,000, split between two implementing agencies (UNIDO and UNEP), for HPMP preparation.

In light of the above, US$ 48,375 including US$ 3,375 support cost is requested as additional HPMP preparation funding for Pakistan.

4) The Philippines reported an HCFC consumption of 180.2 ODP tonnes in 2007 and received $195,000 at the 55th ExCom Meeting through the World Bank for the preparation of an HPMP. The Government has requested to designate the preparation of a foam sector plan to UNIDO.

In light of the above, UNIDO is requesting US$ 70,000 for the preparation of a foam sector plan in the phase-out of HCFCs.

5) Sudan's 2007 consumption of HCFCs according to Article 7 report amounted to 8.6 ODP tonnes. With this, Sudan is a country with medium consumption between 6 and 100 ODP tonnes a year according to classification as stipulated in the Decision 56/16 c.

Sudan received U$ 30,000, to prepare HPMP. The preparation of the Plan was initiated subsequently and the preliminary consumption figures at the enterprise level indicate that there is quite extensive use of HCFCs in the country, mostly in the manufacturing of insulating materials in the refrigeration and foam sectors.

In light of the above US$ 120,000 plus support cost is requested as additional HPMP preparation funding for Sudan.

Project Concept

Country: **Global**

Title: Mobilizing additional funds through the special facility under the MLF to count for the climate co benefits of the HCFCs phase out projects

Project Duration: 12 months

Project Budget: 322,750 (including 7.5% Agency Support Costs)

Implementing Agency: UNIDO

Project Summary

Reference: the MLF facility for resource mobilization funding

This proposal has reference to the resource mobilization funding that UNIDO included in its business plan.

The proposal takes into account the discussions about the issue held in Montreal during the coordination meeting on 26-27 Jan. 09. Furthermore, the below considerations have been taken into account in developing this proposal:

- GEF provides funding for projects in the thematic areas of interest, such as those relating to the UNFCCC, UNBDC and UNDCC. Projects aiming at energy saving and increase the energy efficiency are usually funded.
- GEF operates through national Focal Points (NFP) within governments and in most cases the projects proponents or counterparts are governmental entities (Energy Ministry, Agricultural Ministry, transportation Ministry, etc).
- GEF has limited access/experience in working with individual companies in the private sector especially if they are SMEs.
- GEF confounding requirements made more complex for developing countries to fully benefit from the GEF. And this is more apparent when SMEs were concerned.
- MLF has the mandate to provide funding and assistance for covering the incremental costs relating to the ODS phase out.

- MLF and IAs have a long history of successful cooperation with A5 countries conversion projects at national and enterprise level (over than 5000) projects have been implemented so far). MLF has been successful in building partnership with A5 countries and in developing a good system to deal with big number of national and individual projects in a very smooth and cost effective manner.
- MLF has been successful in achieving remarkable results in the reduction of GHG emissions as a by-product of ODSs phase out projects. However, the generation of climate benefits is not mandated by the MP and therefore associated costs are not covered by MLF.
- Partnership between the GEF and MLF would serve the purposes of both bodies and make use of the strength of each other specifically in the HCFCs phase out era, taking into account the decisions of the MOP and ExCom to adopt alternatives that generate climate and environment co benefits where applicable.

Proposal:

To develop a concept and methodology to calculate the additional costs to be born by the MLF corresponding to the introduction of alternatives or practices that generate climate co benefits. Such additional costs are mostly related to the improvements of the energy performance during manufacturing and subsequently increased energy efficiency of equipments during operation. This is due to the fact that in the refrigeration and A/C equipment, the indirect emissions are dominant in most cases.
Such additional costs could be then covered by the GEF through a special facility at the MLF to allow for more approvals of phase out projects with co climate befits without jeopardizing the limited funds under the current replenishment.

It is needless to mention that such additional costs will be definitely less compared to costs to be paid by GEF to achieve the same results through their current way of business to implement stand alone projects with the objective to increase the energy efficiency of production and equipments at a designated manufacturing facility (estimated at 15- 20% of the total project).
A conversion project funded by the MLF covers usually the remaining costs relating to activities that are required any way to enable manufacturing enterprises to improve their energy performance.

One should consider that in most developing countries, equipments manufacturers are not required to improve the energy efficiency of their products if it means additional

costs to be born by them either due to modification of process or materials costs. As savings generated due to increased energy efficiency would be usually beneficial to end-users and subsequently to developing countries governments due to reducing of required investments in power generation to meet the national growing demands.

UNIDO is therefore requesting 300,000 US$ to workout the methodology and concept in collaboration with GEF and apply it to one of its pilot projects at PETRA Co. in Jordan.

The idea is to avoid the very complicated and lengthy procedure relating to the calculation of Co2 emission reductions and validating of CERs. The anticipated methodology should enable both UNIDO and GEF calculate the climate co benefits in an easy and straightforward manner and agree on the contribution to the special facility.

Similarly, UNIDO plans to use part of the above requested funds for developing a methodology for the calculation of climate co benefits (maybe in CERs form) resulted from the implementation of one of its pilot projects on proper environmental management and destruction of unwanted ODSs in A5 countries. The concept shall also streamline MLF funds with available funding from other institutions for similar activities (FAO funds for the proper management of unwanted chemicals: insecticides and pesticides).

The concepts and methodologies to be developed could be then used as model for replication with other similar activities and projects.

The application of the methodologies in two of UNIDO pilot projects is planned to apply in our HCFCs phase out project at Petra Co. in Jordan and on one of the management and destruction projects.

Cost breakdown (in US$):

International Consultants	72,000
National Consultants	48,000
Travel	30,000
Equipment (for demonstration)	100,000
Management, monitoring and training	50,000
Total	**300,000**