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ESPAÑOL
ORIGINAL: INGLÉS

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

PROPUESTA DE PROYECTO: GEORGIA

Este documento consta de las observaciones y recomendación de la Secretaría del Fondo sobre la siguiente propuesta de proyecto:

Destrucción

• Proyecto piloto de demostración sobre gestión y eliminación de desechos SAO	PNUD

HOJA DE EVALUACIÓN DE PROYECTO – PROYECTOS NO PLURIANUALES

GEORGIA

TÍTULO DEL PROYECTO	ORGANISMO DE EJECUCIÓN
Proyecto piloto de demostración sobre gestión y eliminación de desechos SAO	PNUD

ORGANISMO DE COORDINACIÓN NACIONAL: Ministerio de Protección del Medio Ambiente de Georgia

DATOS DE CONSUMO DE SAO MÁS RECIENTES QUE SE RECOGEN EN EL PROYECTO

A: DATOS ATINENTES AL ARTÍCULO 7 (TONELADAS SAO en 2011)

Anexo I, CFC	0		

B: DATOS SECTORIALES DEL PROGRAMA DE PAÍS (TONELADAS SAO, 2011)

SAO	Subsector/cantidad	Subsector/cantidad	Totales
CFC			0

PLAN ADMINISTRATIVO PARA EL AÑO EN CURSO: Financiación total: 92 376 $EUA Eliminación total de 3,0 toneladas PAO

TÍTULO DEL PROYECTO

SAO CONSUMIDAS EN EMPRESAS		n.c.
SAO A ELIMINAR		n.c.
SAO A INTRODUCIR		n.c.
PROYECTO INCLUIDO EN EL ACTUAL PLAN ADMINISTRATIVO		Sí
SECTOR		SAO de desecho
SUBSECTOR		Sector de servicio y mantenimiento de equipos de refrigeración
IMPACTO DEL PROYECTO		2,13 toneladas métricas de CFC-12
DURACIÓN DEL PROYECTO		24 meses
PROPIEDAD LOCAL		100%
COMPONENTE DE EXPORTACIÓN		%
DONACIÓN QUE SE SOLICITA AL FONDO MULTILATERAL	($EUA)	55,264
GASTOS DE APOYO PARA EL ORGANISMO DE EJECUCIÓN (7,5%)	($EUA)	4,974
COSTO TOTAL DEL PROYECTO PARA EL FONDO MULTILATERAL	($EUA)	60,238
RENTABILIDAD	$EUA/kg	25,9 SAO (tons. métricas)
HITOS DE SUPERVISIÓN DEL PROYECTO		Incluido

RECOMENDACIÓN DE LA SECRETARÍA:	Para consideración individual

DESCRIPCIÓN DEL PROYECTO

Introducción

1. El PNUD, en nombre del Gobierno de Georgia, presentó a la 69ª Reunión una solicitud de financiación de un proyecto piloto de demostración en materia de gestión y eliminación de desechos formados por sustancias que agotan la capa de ozono (SAO) por un costo, tal y como se presentó, de 128 064 $EUA más gastos de apoyo al organismo por valor de 11 526 $EUA. Este proyecto se presentó en consonancia con la Decisión 58/19 y abordará la destrucción de 2,13 toneladas métricas (tm) de desechos SAO en el país.

2. En la 57ª Reunión del Comité Ejecutivo, se tomó la decisión de analizar los proyectos piloto de eliminación de SAO que pudieran dar una respuesta a la decisión XX/7 de la 20ª Reunión de las Partes, y en los que se incluyera la recogida, transporte, almacenamiento y destrucción de SAO, centrándose en las existencias recopiladas que tuvieran un elevado potencial neto de calentamiento atmosférico, y haciendo de ello una muestra representativa de la diversidad regional de los países que operan al amparo del artículo 5. Los miembros hicieron también hincapié en que los proyectos de demostración de eliminación de SAO deberán ser viables e incluir métodos para atraer una financiación conjunta. En la 58ª Reunión, se debatieron criterios y directrices para la selección de proyectos de eliminación de SAO, de lo que se derivó la Decisión 58/19. En su 63ª Reunión, y sirviéndose de su Decisión 63/5 c), el Comité Ejecutivo decidió también "definir una ventana de financiación para la destrucción de SAO para los países de bajo volumen de consumo, conforme a la decisión XXI/2 de la 21ª Reunión de las Partes, por valor de 3 millones $EUA."

3. Las decisiones indicadas *supra* sentaron las bases para el examen y recomendación del proyecto piloto de demostración de Georgia para la eliminación de SAO.

Antecedentes

4. En su 64ª Reunión, el Comité Ejecutivo facilitó fondos al PNUD para la preparación de un proyecto piloto de demostración de eliminación de SAO para Georgia, como país de bajo consumo, que se centrara en la demostración de la eliminación conjunta de CFC no deseados procedentes de antiguas existencias de pesticidas formulados con Contaminantes orgánicos persistentes. El examen efectuado por la Secretaría se fundamentó en los principios establecidos en la Decisión 58/19. La Secretaría aplicó también el inciso ii) del párrafo a) de dicha decisión, en el que se especifica, que en este examen no se aprobará financiación alguna para la recogida de SAO. La definición de recogida de SAO se incluyó en un anexo del informe de la 58ª Reunión, titulado "Definiciones de actividades incluidas en las directrices provisionales para la financiación de proyectos de demostración para la destrucción de las SAO".

5. El proyecto piloto de Georgia tiene por objeto demostrar cómo pueden superarse los impedimentos institucionales, regulatorios, financieros y técnicos aprovechando las sinergias que existen entre los desechos SAO y las principales zonas de concentración de existencias de Contaminantes orgánicos persistentes, lo que puede dar lugar a opciones rentables y beneficiosas tanto para el medio ambiente como para el examen de la gestión y destrucción general de las existencias de SAO no deseadas en países de bajo consumo. Al poner de manifiesto el planteamiento de la eliminación conjunta con grandes volúmenes de existencias de Contaminantes orgánicos persistentes a fin de alcanzar economías de escala, el proyecto intenta demostrar una opción realista y viable para la destrucción de SAO en Georgia, al ser un país de bajo consumo con cantidades de SAO relativamente pequeñas que se han venido acumulando durante periodos de tiempo comparativamente largos.

6. Al Anexo I del presente documento se adjunta una propuesta de proyecto pormenorizada.

Descripción del proyecto

7. La propuesta actual abordará la eliminación de 2 133 kg (2,13 toneladas) de desechos SAO no deseados que se han venido recogiendo y almacenando temporalmente en una diversidad de instalaciones del país.

8. En Georgia, el actual sistema de recogida de los desechos SAO pasa por la recuperación y reciclaje de refrigerantes que ya se inició en 1999. Existen dos centros de recuperación y reciclaje muy bien equipados en las zonas oriental y occidental de Georgia. Sin embargo, la mayor parte de los CFC recuperados no pueden reciclarse ni reutilizarse dado que están contaminados. La recuperación y reciclado de SAO se acomete también en Georgia como parte del sector de servicio y mantenimiento durante la fase de eliminación de CFC. No obstante, no hay aún en funcionamiento un sistema institucional organizado de recogida para aparatos domésticos.

9. En la ejecución del proyecto piloto el Gobierno trabajaría y examinaría las sinergias con las actividades del programa planificadas en el marco del proyecto financiado por FMAM/PNUD denominado “Eliminación de plaguicidas formulados con Contaminantes orgánicos persistentes y medidas iniciales para el confinamiento de los mismos en Georgia”, proyecto cuya ejecución ya ha iniciado el Ministerio de Protección del Medio Ambiente de Georgia en 2013. El proyecto se ha concebido y diseñado para reforzar el actual sistema nacional de gestión de productos químicos peligrosos de Georgia, en el que las SAO están clasificadas, por ley, como productos químicos peligrosos.

10. El planteamiento general del proyecto de demostración es el de explorar las sinergias entre la eliminación conjunta de los desechos de SAO y los desechos de Contaminantes orgánicos persistentes en el marco de un país de bajo consumo en el que los desechos de SAO se acumulan más lentamente y en menores cantidades de lo habitual. El proyecto contemplaría también las posibles oportunidades de alcanzar economías de escala para abordar rápidamente tales volúmenes de desechos de SAO procedentes de las empresas que los gestionan, que fuera posible reducir los costos de su manipulación (hay algunos costos que pueden seguir sin cambiar, tales como el periodo de tiempo de notificación para el tratamiento, el tiempo que requiere la plantilla de personal para preparar los desechos con miras a su exportación y para coordinar el tránsito, y el certificado de eliminación) e incrementar la rentabilidad y la eficiencia.

11. El actual proyecto del FMAM sobre recogida y eliminación de Contaminantes orgánicos persistentes hará posible embalar físicamente de nuevo los desechos de tales contaminantes ya antiguos (que actualmente se encuentran en el vertedero central) y su destrucción segura exportándolos a una instalación extranjera certificada para la eliminación. Habida cuenta de la proximidad de Georgia a las instalaciones de la Unión Europea con capacidad para destruir tales sustancias, y los accesos a las vías marítimas para el transporte de desechos, Europa se considerará como un destino natural para destruir estas materias. Este planteamiento actual se sopesará en lo tocante a los desechos de SAO que haya que manipular en este proyecto.

12. Se ha determinado que las actividades y elementos clave que se indican seguidamente juegan una considerable función a la hora de reseñar las sinergias con miras a la preparación del programa de ejecución conjunta, tanto para la gestión de los plaguicidas con Contaminantes orgánicos persistentes por parte de FMAM/PNUD como del proyecto de manipulación de desechos de SAO asignado al Fondo Multilateral/PNUD, y se ejecutará para los componentes financiados por ambas partes, abarcando:

a) Fomento de la concienciación en materia de salud y de los riesgos medioambientales que plantean los desechos peligrosos, y mejora de la gestión de la seguridad de los Contaminantes orgánicos persistentes y de los desechos de SAO en el país;

b) Revisión conjunta del marco legislativo para dotar el sistema jurídico nacional con principios seguros sobre los desechos peligrosos;

c) Formulación conjunta de las especificaciones para la exportación de desechos, y anuncio único unificado de licitación sirviéndose de los procedimientos del PNUD;

d) Lanzamiento conjunto de la notificación de exportación de desechos por mediación del departamento gubernamental pertinente (Departamento de gestión integrada del medio ambiente del Ministerio Protección del Medio Ambiente de Georgia) participantes en la ejecución de ambos proyectos;

e) Manipulación conjunta de desechos por parte de una empresa de gestión de desechos seleccionada.

13. La propuesta mostró también que este planteamiento, al centrarse en las sinergias, resultaría en ahorros considerables para el Fondo Multilateral, y, al mismo tiempo, que un país de poco consumo como Georgia participe en un proyecto piloto para la eliminación de desechos de SAO, para los que los costes suelen ser con frecuencia elevados.

14. Las actividades específicas que se implantarán con arreglo a este proyecto se dividen en cuatro componentes:

a) Componente 1: Agregación, pruebas, atención a las cuestiones de salud y protección

b) Componente 2: Transporte y destrucción de hecho

c) Componente 3: Apoyo institucional, regulatorio y de criterios para sostener la destrucción de SAO en el país

d) Componente 4: Gestión y supervisión del proyecto

15. Se prevé que el proyecto de demostración de la destrucción de SAO se ejecute en el plazo de 24 meses.

Estimación de las SAO a eliminar

16. Con arreglo a la presentación, el monto de SAO a manipular en el marco del proyecto piloto será de 2,13 toneladas, principalmente CFC, con un pequeño volumen de HCFC contaminado. Como se indicó anteriormente, se trata de dos centros de recuperación y reciclaje y de otro tipo, como se indica en el Cuadro 1 que sigue:

Cuadro 1: Volumen estimado de desechos SAO que se utilizará en el proyecto

Fuentes de la recolección	**Cantidad**		**TOTAL**
	CFC-12 (tm)	**HCFC**	
Centros de recuperación y reciclaje	1 130	0	1 130
Otras fuentes (servicios centrales)	637	366	1 003
TOTAL	**1 767**	**366**	**2 133**

Selección de la tecnología de destrucción

17. Se identificaron las opciones potenciales para la eliminación de SAO, y se enlazaron con las que se estaban analizando en el marco del proyecto de Contaminantes orgánicos persistentes. Se consideraron las opciones de destrucción local, tales como el establecimiento de la capacidad de destrucción, y un horno de cemento; sin embargo, se observó que tales opciones no eran viables técnica ni financieramente dado el pequeño volumen de los flujos de desecho. En el proyecto de Contaminantes orgánicos persistentes del FMAM se ha considerado la exportación de los desechos que los contengan a un país de la Unión Europea y su eliminación en el mismo. Esta fue considerada la opción más rentable, dado que los desechos de SAO se añadirán a otros flujos de desechos de Contaminantes orgánicos persistentes para así obtener economías de escala. El conjunto del proceso se iniciará mediante un proceso de licitación internacional y su eliminación definitiva se certificará oficialmente en las instalaciones seleccionadas de esta función. Además los países de la Unión Europea que participen en el proceso de la licitación tendrán también que cumplir las prescripciones de Convenio de Basilea.

Gestión financiera del proyecto

18. En la propuesta se preveía que la financiación del Fondo Multilateral cubrirá los costos de destrucción de los desechos de SAO actualmente disponibles exportándolos para ser destruidos en una instalación acreditada de destrucción situ en la Unión Europea como se describe *supra*, sumándose volúmenes de desechos al proyecto de eliminación de Contaminantes orgánicos persistentes, y redactándose criterios de selección en estrecha cooperación con el propio proyecto de Contaminantes orgánicos persistentes.

19. El proyecto servirá también para concebir un programa sostenible de acceso a otras SAO no deseadas que puedan recolectarse mediante dos centros de recuperación y reciclaje que operan en el país, en cooperación con empresas de servicio, importadores, y empresas de desguace de vehículos y metales. Se prevé que esto derive en una recolección periódica de unas 0,5 toneladas anuales de SAO no deseadas. Se creará un sistema nacional de financiación para abordar las nuevas acumulaciones de desechos para su eliminación futura sin tener que depender de fuentes externas de financiación.

Supervisión y verificación de la destrucción

20. Como ya se indicó en el párrafo 17 *supra*, los volúmenes de desechos de SAO que se destruirán se certificarán oficialmente en las instalaciones de esta función seleccionadas. A fin de asegurarse de que se lleva la debida contabilidad de los desechos SAO, el proceso se vigilará estrechamente y sus datos quedarán registrados. Todo ello se llevará a cabo siguiendo las mismas normas que se crearán para certificar los desechos de Contaminantes orgánicos persistentes eliminados. No hay riesgo alguno de que los volúmenes se inflen ni de que se no consideren elegibles dado que no existen en Georgia instalaciones de producción y el país sólo importa las SAO que consume.

Costo del proyecto

21. El volumen total de financiación solicitado para el proyecto se ha estimado en 128 064 $EUA. El cuadro que sigue indica los pormenores.

Cuadro 2: Costo del proyecto que se propone

Tipo de actividad	Costo ($EUA)
Adquisición de tres contenedores ISO (de 950 kg cada uno) y otros equipos auxiliares	10 000
Taller de inicio para los participantes interesados activos en la destrucción de SAO	5 000
Transporte de SAO desde diversos emplazamientos hasta otro centralizado en Tiflis (16 emplazamientos)	8 000
Agregación, calibración/certificación por cromatografía de gases y ensayo con las existencias antes de la exportación	10 000
Capacitación del personal y de los técnicos	10 000
Transporte y destrucción de hecho (2 133 kg x 8 $EUA)	17 064
Apoyo institucional, regulatorio y de criterios	15 000
Preparación de estudio de caso y diseminación en países de bajo consumo, taller regional	20 000
Gestión de proyecto (25% a tiempo parcial durante 30 meses x 600 $EUA)	18 000
Asesor internacional	15 000
Suma total	**128 064**

OBSERVACIONES Y RECOMENDACIÓN DE LA SECRETARÍA

OBSERVACIONES

22. La Secretaría facilitó una serie de observaciones sobre el proyecto basándose en el examen que se efectuó tras los criterios establecidos en la decisión 58/19. Dicha Secretaría planteó una serie de cuestiones, encontrándose entre las principales la de la falta de información prescrita en virtud de la Decisión 58/19 b) al respecto de las presentaciones finales para el proyecto. Asimismo, pidió aclaraciones sobre el planteamiento del proyecto dado que las sinergias y coordinación entre este proyecto y el proyecto del FMAM sobre el acopio y eliminación de Contaminantes orgánicos persistentes, que fue el foco principal del proyecto de aprobación de la preparación de proyecto, era algo que no quedaba del todo claro en la propuesta de presentación original. El PNUD explicó que puesto que Georgia era un país de bajo consumo, hubo dificultades para diseñar un proyecto que facilitara una demostración que fuera de utilidad para otros países similares con pequeñas cantidades de desechos SAO. La idea de las sinergias con los Contaminantes orgánicos persistentes fue una forma que permitiera explorar una opción para la que ya se disponía de financiación, y en la que este proyecto pudiera enlazarse con el trabajo institucional que facilitaría una ejecución eficiente. El PNUD hizo también hincapié en que este proyecto viene estrechamente respaldado por el Gobierno de Georgia, el cual se ha comprometido a garantizar que los arreglos institucionales para asegurar dichas sinergias ya están vigentes.

23. La Secretaría pidió también aclaración sobre el sistema de recolección, sus bases jurídicas y hasta qué punto se había establecido. El PNUD mencionó que a fechas de hoy, si bien hay dos centros de recuperación y reciclaje, el sistema de recolección es muy simple. Por ende, el actual proyecto piloto implantará también medidas para establecer un programa de agregación de desechos y de eliminación definitiva que permitirá hacer acopio de otros desechos SAO sirviéndose de las actuales infraestructuras concebidas para la reutilización de SAO. Todo ello nos llevará ulteriormente al desguace de equipos antiguos, a la retroadaptación y a la recuperación de gases en los centros de recuperación y reciclaje, de donde emanará un programa financiero sostenible enfocado a su eliminación futura como parte de los ingresos obtenidos por la manipulación de equipos/retroadaptación que se genera en los centros de recuperación y reciclaje.

24. La Secretaría planteó también cuestiones sobre la sostenibilidad del proyecto tras la ejecución de la fase piloto. El PNUD indicó que el Gobierno está comprometido a garantizar que esta sinergia quede plenamente institucionalizada en el marco de un sistema de gestión y eliminación de desechos de productos químicos, y, por ende, su ejecución sería prioritaria. Como ya se indicó más arriba en el párrafo 19, el proyecto concebirá también un programa de sostenibilidad para acceder a otras SAO no deseadas que puedan recolectarse mediante los dos centros de recuperación y reciclaje y desarrollar un sistema financiero a escala nacional que afronte los nuevos desechos acumulados para su futura eliminación sin para ello tener que depender de fuentes externas de financiación.

25. A lo largo de deliberaciones ulteriores con el PNUD, la Secretaría tomó nota de que el planteamiento para la eliminación de desechos de SAO en Georgia, centrándose en las sinergias con un proyecto en curso conexo a otro convenio de productos químicos, aportaría una experiencia valiosa y permitiría aprender de otros países similares en los que los flujos de desechos de SAO son muy pequeños, y de que la agregación de desechos de productos químicos para su destrucción es un buen concepto con una gran valía de demostración. La Secretaría tomó nota además de que estas experiencias se documentarán en un informe final, en el que se acentuarán lecciones específicas aprendidas y las medidas para iniciar la cooperación y los arreglos institucionales implantados para asegurar el éxito de tales colaboraciones. La Secretaría sugirió al PNUD que este informe deberá convertirse en uno de los resultados que se deriven del proyecto, y facilitar la mayor cantidad de información pormenorizada posible sobre los resultados alcanzados por el proyecto, teniendo en cuenta su posible aplicación para países de bajo consumo. El PNUD tuvo en cuenta esta y otras sugerencias de la Secretaría y revisó el proyecto consecuentemente.

26. La Secretaría señaló también a la atención del PNUD el costo total del proyecto y el correspondiente costo por kilogramo de SAO destruido que, en su presentación original, fue de 60 $EUA/kg. El PNUD señaló que ello se debía a lo reducido de los volúmenes de SAO que se eliminarían en el marco de la actual presentación. La Secretaría pidió al PNUD que examinara los costos, en los que cabe la posibilidad de efectuar ajustes, y que se asegurara de que las actividades serían comunes tanto para los proyectos para Contaminantes orgánicos persistentes del FMAM como del Fondo Multilateral a considerar consecuentemente. Este ajuste arrojó un costo de 25,9 $EUA/kg de SAO destruida. Esta cifra excede de lo permitido en virtud de la Decisión 58/19 que indica un máximo de 13,2 $EUA/kg, aunque, dado que Georgia es un país de bajo consumo, no le incumbe este componente específico de la decisión. La destrucción de 2,1 tm de CFC-12 dará lugar, una sola vez, a una reducción 22 890 toneladas de CO_2-equivalente en las emisiones de Georgia.

27. El coste final del proyecto se acordó en 55 264 $EUA más gastos de apoyo por valor de 4 974 $EUA. Todo ello se resume en el siguiente cuadro:

Cuadro 3: Costo final propuesto del proyecto piloto de eliminación de SAO en Georgia

Tipo de actividad	Costo (US$)
Adquisición de dos contenedores ISO (de 950 kg cada uno) y otros equipos auxiliares	6 000
Taller de inicio para los participantes interesados activos en la destrucción de SAO	3 000
Transporte de SAO desde diversos emplazamientos hasta otro centralizado en Tiflis (16 emplazamientos)	3 200
Agregación, calibración/certificación por cromatología de gases y ensayo con las existencias antes de la exportación	5 000
Capacitación del personal y de los técnicos	2 000
Transporte y destrucción de hecho (2 133 kg x 8 $EUA)	17 064
Gestión de proyecto (25% a tiempo parcial durante 24 meses x 500 $EUA)	12 000
Preparación de informe sinopsis del proyecto piloto (y costo de la impresión)	7 000
Suma total	**55 264**

RECOMENDACIÓN

28. El Comité Ejecutivo puede estimar oportuno:

a) Tomar nota con reconocimiento de la presentación del Gobierno de Georgia respecto de un proyecto piloto para la gestión y eliminación de desecho SAO con miras a destruir un total de 2,13 toneladas métricas de tales desechos SAO;

b) Decidir si aprobar o no la ejecución de un proyecto piloto destinado a la gestión y destrucción de desechos de SAO en Georgia por un monto de 55 264 $EUA, más gastos de apoyo del organismo de 4 974 $EUA para el PNUD, señalando que con la aprobación se da por entendido que:

i) No habrá una financiación futura para Georgia para ningún otro proyecto de eliminación de SAO;

ii) Toda comercialización de las reducciones de gas invernadero generadas por el proyecto, o conexa al mismo, quedaría sujeta a una decisión del Comité Ejecutivo; y

c) Pedir al Gobierno de Georgia, por mediación del PNUD, que establezca un sistema de supervisión de la operación y de las actividades conexas al proyecto de demostración de eliminación de SAO, y pedir así mismo al PNUD que informe consecuentemente al Comité Ejecutivo tras la terminación del proyecto en 2015, asegurándose de que no ha habido una comercialización de la reducción de emisiones de gases de invernadero.

PROJECT COVER SHEET

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COUNTRY:	Georgia
PROJECT TITLE:	Pilot Demonstration Project on ODS-Waste Management and Disposal in Georgia
PROJECT IN CURRENT BUSINESS PLAN:	Yes
SECTOR:	ODS-Waste
SUB-SECTOR	Refrigeration Servicing Sector
CFC BASELINE:	Baseline (1995-97): 22.5 ODP Tones
PROJECT DURATION:	2 years (June 2013 – June 2015)
PROJECT IMPACT:	2,133.00 kg
PROJECT COST:	US$ 55,264
AGENCY SUPPORT COST:	US$ 4,973.76 (9%)
TOTAL COST TO THE MLF:	US$ 60,237.76
SOURCE OF FUNDS:	Multilateral Fund (MLF) for the Implementation of the Montreal Protocol.
NATIONAL IMPLEMENTING AGENCY:	The Ministry of Environment Protection of Georgia
IMPLEMENTING AGENCY:	UNDP
PREPARATION DATE:	February 2013 /March 2013 (revised)

PROJECT SUMMARY

The main objective of this project is to propose a realistic and feasible option for the ODSs destruction in Georgia in combination with obsolete POPs pesticides co-disposal. This project will initially address the disposal of 2,133.00 kg of unwanted ODSs that has already been collected and temporary stored in various storage facilities. The project will demonstrate synergies between ODSs and POPs focal areas providing an opportunity to examine waste disposal and cost reduction opportunities through synergies with GEF/UNDP funded project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia".

The project has also the objective to assist in designing a scheme for accessing other unwanted ODSs. The proposed activities will include assistance in introduction of measures to support the sustainability looking at available ODSs waste that can be collected through two R/R centers operating in the country in cooperation with service companies, importers, car dismantling and metal scrapping companies in longer run with future waste disposal deploying in-country generated sources of finance.

Annexes attached to this submission:
The endorsement letter from the Ministry of Environment Protection of Georgia

1. BACKGROUND

The Twenty-First Meeting to the Montreal Protocol requested the Executive Committee in its Decision (XXI/2) setting a window for funding for Disposal and Destruction of ODSs. This window is launched for Low-Volume Consuming countries (LVC) operating under the Montreal Protocol. The decision states: "To request the Executive Committee to continue its consideration of further pilot projects in Article 5 Parties pursuant to decision XX/7, and in that context, to consider the costs of a one-time window within its current destruction activities to address the export and environmentally sound disposal of assembled banks of ozone-depleting substances in low-volume-consuming countries that are not usable in the Party of origin". Pursuant to this request, in its Decision 63/5 (c), the Executive Committee decided "to set a window for ODSs destruction for low-volume-consuming countries, pursuant to decision XXI/2 of the Twenty-first Meeting of the Parties, amounting to US $3 million."

Georgia submitted its request for project preparation (US$ 30,000) for a pilot project for demonstration of unwanted CFCs co-disposal with obsolete POPs pesticides stockpiles. The Executive Committee decided to approve the request for project preparation for a demonstration project in ODS bank management and destruction in Georgia by Decision 64/18.

Georgia has prepared the project document according to guidelines of MOP/ExCom and the country is requesting funding for starting up a pilot project to demonstrate safe disposal of ODSs waste. The project complies with the criteria established by the Executive Committee Decision (58/19) and it will focus on specific aspects and synergies coordinating work with POPs waste co-disposal, not previously addressed by this type of MLF approved pilot projects.

This project is unique since this is the only individual project in an LVC country which has been prepared under the existing window for ODSs destruction in LVC countries. The project will demonstrate how the technical, financial, regulatory and institutional barriers can be overcome through synergies between ODSs waste and POPs stockpile focal areas that can result in cost effective and environmentally beneficial options for both focal areas, looking at overall destruction and management of unwanted ODSs stocks in LVC countries.

2. PROJECT OBJECTIVES

With MLF support, the current project will initially address the disposal of 2,133.00 kg (2 tons) of unwanted ODSs wastes that have already been collected and are being temporarily stored in various storage facilities in the country. By demonstrating the co-disposal approach with larger POPs stocks for reaching required economy of scale, the objective of this project is to propose a realistic and feasible option for the ODSs destruction in Georgia, the country being the LVC with relatively small quantities ODS wastes that being accumulate over comparatively longer periods of time.

The project will intend to demonstrate synergies between the ODSs and POPs waste disposal programmes providing an opportunity to examine synergies with programme activities planned under the GEF/UNDP funded project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia" which had started its implementation in 2013, and which was also generally designed to start strengthening the national system of hazardous chemicals management in Georgia.

The project will further assist in designing a sustainability scheme for accessing other unwanted ODSs that can be collected through two R/R centers operating in the country in cooperation with service companies, importers, car dismantling and metal scrapping companies. This is expected to result in future regular collection of about 0.5 tons of unwanted ODSs on annual basis. A financial national system will be developed to address such newly accumulated waste for future disposal without dependence on external funding sources.

3. JUSTIFICATION FOR THE ODS-DISPOSAL PILOT PROJECT

The Executive Committee, at its 58th Meeting (Decision 58/19), has approved a set of interim guidelines for funding of demonstration projects for the disposal of ODSs in accordance with the paragraph 2 of Decision XX/7 of the Meeting of Parties. The following describes in detail the project's compatibility with those requirements as related to the updated information as per 58/18 iv (a).

i. An indication of the category or categories of activities for the disposal of ODS (collection, transport, storage, destruction), which will be included in the project proposal.

The pilot project will address the complete range of activities associated with ODSs waste destruction. The funds from MLF will be only used to support the transportation, storage and destruction of ODSs. It means that the country will use funds for:

- consolidation of current stocks of ODS wastes in one central location in a safe manner, using approved storage tanks;
- waste characterization;
- secure storage; and
- transportation (export) abroad for safe destruction, including disposal costs.

The Ministry of Environment confirmed that the project will initially address disposal of 2 tons (2,133.00 kg) of unwanted ODSs that have already been collected in-country and ready for destruction. The disposal of this current stockpile of ODS wastes will be jointly carried out with export and co-disposal of 230 tons of obsolete POPs pesticides that is planned in 2014, under a separately approved and currently operational GEF/UNDP project.

ii. An indication of whether disposal programmes for chemicals related to other multilateral environmental agreements are presently ongoing in the country or planned for the near future, and whether synergies would be possible

Georgia had ratified and currently implements provisions of the Basel, Rotterdam and Stockholm conventions on sound chemicals management.

This is supported on the country level by adoption of the National Implementation Plan (NIP) for POPs and a framework national strategic plan - National Environmental Action Plan - 2 (NEAP-2) (Resolution #127 dated 24 January, 2012). Both outline national level activities in the field of environment protection and the principles of sound and safe waste and chemicals management are considered as priority areas for Government's intervention.

Under the NIP, which was approved by Cabinet of Ministers on April 21, 2011 (#907), the Government aims at developing effective strategies for sound management of POPs priority problems, as well as ensuring protection of human health and the environment through implementing sustainable hazardous waste handling policies. Among key activities are:

- analytical study/assessment of hazardous POPs wastes composition contained at the central landfill located close to the capital (Iagluja burial site);
- collection of POPs pesticides from fragmented storages across the country, re-packing of waste in UN approved containers, temporary safe placement at one location and further export of collected POPs waste for final sound disposal;
- containment and safeguarding measures for the central landfill (fencing, construction of drainage pits).

As a follow-up to the NIP approval, the Government, in cooperation with UNDP, had developed and submitted a GEF/UNDP project on disposal of obsolete POPs pesticides which was approved by the GEF in 2011 and launched into implementation in January 2012. The main objective of the project is the safe management (excavation from Iagluja site, laboratory testing, categorization, re-packaging) and disposal (export and destruction) of approximately 230 tons of POPs containing pesticides in environmentally sound manner. This will be supported by improvements in comprehensive waste control legislation (waste and owner registers, category and hazard level systems, management and disposal principles), capacity building of Government officials in hazardous waste management processes and awareness raising on harmful impacts of such wastes on human health and environment.

While the country also participates in two regional GEF funded projects implemented by UNEP and FAO that target improvements in national level capacities to safely manage POPs wastes, the national project that covers the actual sound disposal of large amount of accumulated POPs

waste is planned to link to the ODS waste destruction process for co-disposal and demonstration of prospective synergies between the two separate focal areas, and the joint activities will be carried out in cooperation with same range of national and research institutions, stakeholders and partners that will improve coordination of mandates.

iii. An estimate of the amount of each ODS that is meant to be handled within the project

The amounts of ODS waste meant to be handled by the demonstration project are described in details in section 4 below. Currently available ODSs waste stock in Georgia weights 2,133.00 kg.

iv. The basis for the estimate of the amount of ODS; this estimate should be based on known existing stocks already collected, or collection efforts already at a very advanced and well-documented stage of being set up

In Georgia, the collection and recycling of refrigerants has started since 1999, and there are two technically very well equipped R&R centers in the Eastern and Western Georgia and considerable experience has been accumulated. The following shows some dynamics in recovery of ODS substances by these centers:

Year	Amount (MT)	
	CFCs	HCFCs
2009	0.35	0.8
2010	0.2	0.5
2011	0.4	0.8

From time of the CFCs phase-out, and specifically approximately two (2) years before it, in 2008, the popularity of these centers to-date has considerably grown. This can be explained, from one side, by business plans of end-users to switch more rapidly to more accessible alternative refrigerants, and, from the other side, by demand on recycled CFCs which price in the absence of virgin CFC refrigerants grows very sharply.

However, in this process, a part of recovered refrigerants cannot be recycled or reclaimed in view of contamination. This is connected to extremely aged equipment still in use and, in some cases, due incorrect maintenance practices which still are recorded in Georgia.

Table 1 below provides more detailed information on the source and quantity of contaminated ODSs, or unwanted waste (by category of ODS) that is not suitable for further use. The waste has been collected over the period of last 9 years which demonstrates the pace of waste generation in the country. In general, ODS waste amounts had started to increase in recent years with intensification of operations in the national ODS re-use system.

Table 1: Data on collected ODSs waste in Georgia

#	Name of the company	Area of work	Collected CFCs waste (kg)	Collected HCFCs waste (kg)
1	Georgian R&R Centre	Recovery and recycling of refrigerants	1,010	n/a
2	Kutaisi R&R Centre	Recovery and recycling of refrigerants	120	n/a
3	“Universal service” Ltd	Service of refrigeration equipment	30	15
4	“Nino” Ltd	Service of refrigeration equipment	47	n/a
5	“Amiga” Ltd	Service of refrigeration equipment	35	n/a
6	TRRRG Group Ltd	Import and retail trade	40	10
7	“Nemera” Ltd	Import and retail trade	15	25
8	“Stock” Ltd	Import and retail trade	20	20
9	“Saga Impex” Ltd	Import and retail trade	10	30
10	Ambrolauri winery	End-user	60	n/a
11	Georgian Public Broadcaster	End-user	80	n/a
12	Winery “Khvanchkara”	End-user	60	n/a
13	Electrical Car Repair Works	End-user	40	60
14	Dairy“ Amalfea” Ltd	End-user	n/a	110
15	“Verdzi” Ltd	End-user	n/a	96
16	"Avgo" LTD	Car dismantling	100	n/a
17	"Start" Ltd	Car dismantling	100	n/a
Total			**1,767**	**366**
Grand total			**2,133**	

These amounts have been documented as present (through physical verification), and are ready for sound disposal using qualified destruction technologies.

v. For collection activities, information regarding existing or near-future, credible collection efforts and programmes that are at an advanced stage of being set up and to which activities under this project would relate

The collection of currently accumulated ODS waste commenced in 2003/2004 as part of the dedicated R&R processes and equipment replacement/retrofits initiated during CP and RMP time. Though they come at somewhat slow pace, which is expected for an LVC country and the

market size, currently available wastes and future expected stocks present a national challenge to further safe storage and handling.

The operations for accumulation of additional waste will surely continue, and, with time, the amounts can see increases in future. This will be supported by implementation of the HPMP as described further, as well as additional measures proposed in the current ODSs waste management project.

In Georgia, the HPMP implementation started in February 2012, in parallel to the approval and start of the GEF/UNDP programme on obsolete POPs pesticides. HPMP will provide a general framework for regulation of HCFC consumption, the update of the Code of Good Practice, support training of technicians, and upgrade R&R Centers. In future, these measures will contribute to an increase in the quantity of collected ODSs (old stocks of CFCs will also be expected as recycling operations will continue). A portion of such ODSs flow in the national re-use system will represent ODS waste not suitable for any future application and will, therefore, require additional destruction. Moreover, these will be waste not only from CFCs, but also from HCFCs and HFCs, as the latter might be introduced in the market in wide selection, and it can create additional challenges for R&R centers linked with their storage and future handling.

In the current pilot project, as it will set out for implementation, measures will be put in place for establishing a waste aggregation and financial disposal scheme to:

(1) collect additional ODS wastes – this will be achievable through the existing infrastructure designed for ODS re-use that will aim further old equipment dismantling, retrofits and gas recovery at R&R centers;
(2) generate financial means for their future disposal as part of equipment/retrofit handling fees received at R&R centers.

It is planned, in support of these targets, that the existing two R&R centers will sign special servicing agreements with service companies, importers, car dismantling and metal scrapping companies. Due to the market size, it is expected to result in collection of ca. 0.5 tons (500 kg) of unwanted ODSs annually in future.

Based on this information, studies from the project preparatory phase conclude that the accumulation and follow-on disposal of unwanted ODSs in the country can be realistically performed once in a few years time.

vi. For activities that focus at least partially on CTC or halon, an explanation of how this project might have an important demonstration value

This pilot project will focus primarily on the destruction of contaminated CFCs with small quantities of HCFC containing wastes. With regard to halons, Georgia had implemented a halon management project which assisted the country in establishment of recovery and recycling centre for halons, which is co-operated by the central R&R centre in the capital area. Expected very minor quantity of the halon stock is intended for future re-use and no halon destruction is planned in this project. CTC is not reported in use in the country.

4. DEMONSTRATION OF SYNERGIES IN ODSs AND POPs WASTE CO-DISPOSAL

The decision 58/19 iv (b) further outlines additional elements for consideration during the submission of project documentation. These are listed and elaborated in more detail below:

> **i.** Updated and more detailed information for all issues mentioned under project preparation funding contained in all sub-paragraphs of 58/19 (iv) a;
> **ii.** A detailed description of the foreseen management and financial set-up; this should include details such as the total cost of the disposal activity including costs not covered by the Multilateral Fund, the sources of funding for covering these costs, description of the sustainability of the underlying business model, and an identification of time-critical elements of the implementation, which subsequently might be used to monitor progress;
> **iii.** A clear indication how the project will secure other sources of funding; these other sources of funding should be available, at least partially, before the end of 2011. In case of activities of the collection type, any other sources of funding necessary […] related to collection would need to be secured before the project is submitted to the Executive Committee;
> **iv.** A concept for monitoring the origin of recovered ODS for future destruction, with the objective of discouraging the declaration of virgin ODS as used ODS for destruction. This concept should include or at least allow for external verification of the amounts destroyed, and the costs for its operation should be covered sustainably;
> **v.** The project proposal should include valid assurances that the amount of ODS mentioned in the proposal will actually be destroyed, and the agencies should submit proof of destruction with the financial closure of the project;
> **vi.** An exploration of other disposal options for the used ODS such as recycling and reuse opportunities;

The underlying concept of the current demonstration project is associated with exploration of synergies of ODS waste co-disposal along with POPs waste in a context of the LVC country where ODS waste is accumulated at a slower pace and smaller quantities. The latter factor further has implications on reaching economy of scale and reduces business interests to address such amounts of ODS waste from waste management companies in short run, or will tend to increase the costs of waste handling (some essential costs can remain unchanged such as notification processing time, staff time to prepare the waste for export and coordinate transit, and disposal certification) and decrease cost-effectiveness.

Further sections address the posed questions and explore the synergies between the two focal areas in more specific detail.

POPs waste collection and disposal

In support of implementing the Government's NIP (and obligations in front of the Stockholm Convention on POPs), the GEF/UNDP medium-sized project entitled "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia" was formulated and then approved by the GEF in 2011. The programme was put into implementation

starting January 2012 with a total GEF budget of US$ 1,000,000 for technical capacity building in the area of hazardous POPs waste management and final disposal.

The project has three principal outcomes:

- Outcome 1 "Strengthened legal and administrative capacity" will assure that pre-conditions, such as improvement of legal framework necessary for project implementation and further POPs related hazardous waste management.
- Outcome 2 "Minimization of releases from obsolete pesticide dumps" will ensure that the largest POPs pesticide stockpile (200-250 tons) is excavated, re-packaged and destroyed in an environmentally sound manner, and any further releases to the environment are minimized. This contributes significantly to creating local capacity in sound management of hazardous waste in general.
- Outcome 3 was designed to establish project monitoring, accumulation and dissemination of lessons learnt.

The project will enable physical re-packaging of obsolete POPs wastes (currently placed at the central landfill) and their sound destruction through export abroad to a qualified disposal plant. Provided the proximity of Georgia to EU's destruction capacity and access to sea routes for waste transportation, Europe will be considered as the primary destination for such materials. Local destruction options such as (1) establishment of the destruction capacity, and (2) cement kiln were considered, however, not financially and technically feasible.

Export and disposal of POPs waste (and of ODS waste that will be added to the stream) will be initiated through an international bid and final disposal will be officially certified in the selected disposal facility.

ODS waste collection and disposal

According to existing national standards, if contamination of one refrigerant by other refrigerants exceeds 2% by volume, such refrigerant is considered as waste and it is not subject to further recycling and, therefore, should be stored for final disposal through destruction.

The current two established R&R centers are the backbone of the national ODS re-use system and form a commercial operation part of the Georgian Refrigeration Association. Both centers operate autonomously and are currently financially self-sustainable that was achieved though operating a balanced ODS processing fees system.

Starting 2003/2004, these centers started collecting unwanted ODSs, mostly represented by CFCs. This was launched at RMP time, when the recovery and recycling programme became fully operational and functioned in combination with an end-user incentive system for refrigeration equipment replacement/retrofits (small and medium enterprises in commercial/ industrial/transport refrigeration) for use of CFC-free technologies. Approximately fifteen (15) end-users participated in this programme which resulted in direct CFC phase-out from regular use.

At present, both R&R centers temporarily store about 1,130 kg of ODSs waste (1,010 kg in Tbilisi and 120 kg in Kutaisi). In addition, several equipment service centers such as "Universal service" Ltd, "Nino" Ltd and "Amiga" Ltd, which were previously equipped with modern refrigerant recovery facilities through RMP update and TPMP programmes, have been collecting unwanted CFCs since 2005-2007. These centers collected unwanted CFCs in the commercial RAC sector, and, specifically, from supermarkets' chains, restaurants, and hotels.

As far as ODS importers and retail trade companies are concerned, they mainly collected CFCs waste as residue from refillable containers. The quantity is extremely low but the companies are willing to cooperate and provide CFCs to the main R&R centre for further storage and disposal operations.

All other collection efforts are related to end-users and last 2-3 years of CFC equipment retrofits/replacements. Currently, it is estimated that 90% of previously CFC based refrigeration equipment in offices, retail shops, hotels, restaurants and other commercial and public buildings have been already replaced with CFC free options.

Illegal imports were also recorded and seized by Customs authorities. In those cases, products are transferred for temporary storage to the existing R&R centers. One example is when imported refrigerants were labeled as R134a. However, after gas composition analysis, this was a mixture that contained: HFC134a - 18.6%, CFC12 - 19.1%, and HCFC22 - 62.3%. This material (272 kg) was placed at the central R&R center in the capital.

In total, the currently accumulated ODSs waste not suited for further re-use is **2,133 kg (2 tons)**. For additional details, please refer to Table 1 in Section 3 above.

It is currently planned to proceed with co-disposal of ODS waste with POPs pesticides (approximately 230 tons) and, by doing so, explore how further explained synergies can be sustained and applied as in the national context so in other LVC and non-LVC countries where such approached may be considered.

Institutional coordination and synergies of POPs/ODS focal areas

The Ministry of Environment Protection of Georgia is the responsible authority for implementation of the Vienna Convention and Montreal Protocol, Stockholm and Rotterdam Conventions. The Ministry has also the following competences in chemical management area:

(-) formulation of Government's policies and legislative framework on environmental protection, and safe management of hazardous wastes, in particular;

(-) organizing ecological expertise and issuing permit for environmental safety of business operations (including POPs and ODSs),

(-) exercising control of implementation conditions of permits for environment impact including chemical substances,

(-) development of safety rules in event of chemical and radiation emergency situation

The Integrated Environment Management Department within the Ministry is the key focal point for chemical management. Two units under the department (waste and chemical management and air protection) are involved in management and control of import-export of a number of dangerous substances in Georgia regulated under the international agreements. The Waste and Chemical Management Division under the department specifically regulates POPs and other dangerous chemicals. At the same time, it ensures that provisions of the Basel convention are fulfilled by the Country. The Air Protection Division is a responsible unit for activities related to Montreal Protocol and management of ODSs. Both Divisions are supervised by the Head of the Department who ensures that POPs and ODSs activities are implemented in full alignment with country's international obligations.

The Department will support the implementation of the two disposal programmes through formulation of legislative control framework to ensure safe hazardous waste management and preparation of required waste export and transit documentation in line with the Basel Convention's rules and procedures to ensure the current stocks of POPs and ODS waste materials are destroyed with the use of qualified technology and in a certified disposal facility.

Joint activities of ODS waste project with POPs disposal programme

The key elements identified as having substantial role in outlining synergies in preparing the joint programme implementation for both the GEF/UNDP POPs pesticides management and MLF/UNDP ODS waste handling projects are listed below:

- Awareness rising on health and environmental risks posed by hazardous waste and improvements in safe management of POPs and ODS waste in the country;
- Joint revision of the legislative framework on inclusion of sound hazardous waste principles in the national law system;
- Joint formulation of waste export specifications, and one unified tender announcement through UNDP procedures;
- Joint launch of waste export notification through the Governmental department (Integrated Environment Management Department of the Ministry of Environment Protection of Georgia) involved in the implementation of both projects;
- Joint handling of wastes by the selected waste management company.

Based on the items listed, the following section identifies areas where due to joint planning the MLF project can generate cost savings due to the synergetic approach.

Achievable cost savings

During the project document formulation the following potential savings were analyzed and considered realistic using the principle of attaching implementation of a smaller in budget MLF supported programme to the larger POPs pesticides project financed by the GEF.

The work plan of the GEF/UNDP project is kept with its original implementation plan as no complementary resources are required for completion of this programme. It should be noted that the representative sample of costs is related to the GEF programme implemented in the

Europe/CIS region, and specifically to Georgia. Depending of geographic location and waste transit conditions, the costs will vary in other regions.

Cost item	GEF costs	MLF[1] costs	Joint implementation costs (GEF/ MLF)	Savings to MLF
Awareness raising on principles of sound waste management; waste exports and cleaner environment	$100,000	$5,000	$100,000/$3,000	$2,000
Revision of legislative framework and sub-laws to establish national rules and procedures for safe hazardous waste management	$35,000	$15,000	$35,000/-------	$15,000
Storage design, storage upgrade to meet standards and future joint storage of POPs and ODS wastes in one designated hazardous waste storage	$80,000	$8,000[2]	$80,000/$3,200	$4,800
Preparation of joint specifications to announce ITB (one department within the Ministry of Environment; same expert/hours)	$ 3,000	$ 3,000	$ 3,000/--------	$3,000
Procedural implementation of one (1) unified tender process for export and destruction of POPs and ODS wastes in a	$ 20,000[3]	$ 20,000	$ 20,000/--------	$ 20,000

[1] The costs in MLF column are presented as if MLF project is implemented in absence of the GEF/UNDP MSP programme on POPs pesticides.

[2] Local transport costs to consolidate wastes in one location are involved. No costs are planned for infrastructure upgrade for the storage by MLF project. Currently accumulated ODS waste would be stored by R&R centers, and before disposal would be sent to the central designated storage location. Future stocks would be automatically transferred to the storage using service and disposal fees generated by the Refrigeration Association of Georgia.

[3] Costs form a part of a larger contract for an international based waste management company for waste disposal operation and related to paper work required to ensure clearances for waste transit and destruction.

qualified disposal facility in EU (incineration)				
Waste export operation*[4]	$410,000	$17,064	$410,000/$17,064	0
Total expected savings				$44,800

At the current stage, these cost reductions represent estimated savings, and the actual costs involved will be known at the project implementation stage, and reported to the MLF Secretariat.

Sustainability component of ODS waste phase-out and forward outlook

As the current project will cover handling of already collected ODS wastes, a strategy of simply waiting for additional waste does not represent a realistic option in the immediate and short-term in the current circumstances, and, to address future ODS waste stocks, the project will address the sustainability element of the approach in the following manner.

There is a considerable number of smaller service centers in the country which operate in the RAC area (around fifty – 50 workshops). However, it is important to emphasize that only a few larger in size companies are able to autonomously collect used refrigerants. Other companies perform this task in cooperation with existing principal R&R centers. These companies have already collected unwanted ODSs and keep the waste in-house on storage, ready to be destroyed.

With regard to importers, large companies often also sell refrigerants domestically through retail system. Importers do not work in the field of servicing equipment and do not deal with ODSs waste; however, they report small amounts of waste ODSs (residuals) as remaining fractions in disposable cylinders, similarly stored for future disposal. Currently, the large part of the waste is HCFCs since CFCs have not been in import into Georgia during last four years. Importers are ready to cooperate with the project to collect additional amounts of ODS waste which in this case would be mostly HCFCs in the medium run.

Finally, while there are no importers of CFCs in Georgia, there are plenty of end-users which still have obsolete equipment that is not operational but still contains CFC-12. Such end-users reported that there is also old equipment which was retrofitted with recovered and contaminated CFC12 put on storage in gas containers. These end-users are ready to cooperate for transporting the collected CFC-12 to the R&R center in Tbilisi (capital area).

In order to address these future sources, the main role in regular ODS waste collection, storage and transport for destruction is currently seen in these existing R&R centers[5]. In support of such

[4] Actual cost saving can be identified at the implementation stage

[5] In both R&R centers, multi-gas analyzers VIPER 800600 and TA400 are used for identification of refrigerants. The Tbilisi center also hosts a gas chromatograph (SRI instruments) which requires appropriate calibration. Further, the gas chromatograph requires registration in the State Standards Department to be officially certified.

their future activities, the following financial scheme will ensure that unwanted refrigerants are collected and further managed in an environmentally sound and acceptable manner.

At present, the regular activity of centers includes collection (recovering), recycling, reclamation and identification of refrigerants' composition. Both centers during one year can on average collect about 1,500 metric tons of refrigerants for recycling:

- Eight hundred (800) kg of this amount is recycled and returned to end-users;
- Two hundred (200) kg is re-used without recycling; and
- Five hundred (500) kg, or 0.5 tons, constitute waste which will be subject for storage by these centers before safe disposal.

Existing legislation does not include any provision for creation of resources generating mechanisms for ODS waste disposal, and therefore, the project will elaborate on that plan to introduce such measures. The rules will relate to the operation of the R&R center's activities.

Currently, the collection cost of refrigerants from serviced equipment, depending on contamination level, stands at a minimum of 5$/kg, while recycling and reclamation operations cost 8$/kg and 11$/kg respectively. Taking into account strong demand for R&R operations in Georgia, the current income is regular and such operations can include waste accumulation and storage on a fee basis. Therefore, a viable mechanism for resource generation would be to add to the current cost of refrigerant handling (cleaning) a small portion of 1.5$/kg applied as to recovered and so to recycled/reclaimed refrigerants, which will be devoted for future destruction of accumulated ODS waste. Annually, this fee fraction may reach US$ 3,450 as per the following costing formula - 1,500 kg of total annual recovered material x $1.5 + additional fee of 800 recycled/reclaimed x $ 1.5 = $ 3,450$.

In addition, the R&R centers regularly receive requests for identification of refrigerants both from the service centers and from importers of refrigerants. Regularly, such requests also come from Customs services. The centers yearly perform about two (200) to three (300) hundred of such analyses. Such analysis costs by VIPER 800600 equipment (for single gas refrigerants) is 5$/sample and by TA400 equipment (for single and multi-gas compositions) is 8$ per sample. As testing is done to screen waste materials such identification cost will include up to 2$ to generate additional funds for future destruction of waste refrigerants. This will provide additional minimum of yearly $ 500 in revenue (250 analyses x $ 2/sample).

The use calibrated gas chromatograph, located in the capital city's R&R center, will ensure more precise gas composition identification that is currently in demand at the national level as compared to the existing electronic equipment (VIPER and TA400), and this activity would generate additional resources with same fee fractioning principle for ODS waste.

In total, around $ 3,950 annually can be generated to create a funding mechanism to accumulate missing resources for ODS waste disposal in future on a sustainable basis. As it was estimated that realistically reaching same levels of ODS waste as accumulated now is possible each 5 years, the corresponding local funds, to be administered by the R&R centers, will reach the level of US$ 19,750 or sufficient enough at the current estimated disposal price of US$ 8.kg for 2,500

kg that can be expected as the future stock. The tender preparation and procedural support to a waste export operation (Basel convention requirements) in future would be supported through the capacity built at the Ministry of Environment of Georgia.

Voluntary Carbon market

Appropriate consideration for additional resource generation has been given to the use of voluntary carbon market. Due to the market size, it is not viable to collect the amount of waste that would present interest for trading schemes. Another challenge affecting the revenue generation is the reducing cost for unit credits that fall below $ 1.3/credit in the European market. This situation is applicable for many LVC A5 countries with lower consumption of CFCs and other ODSs.

5. PROJECT ACTIVITIES AND OVERALL STRATEGY

The following describes the structure of the project in more detail.

Component 1: Aggregation, testing, addressing health and safety issues

Georgia plans to destroy 2,133.00 kg of contaminated ODSs but these stocks are dispersed and placed at two existing R&R centers and various locations throughout the country in smaller quantity. These stocks need to be aggregated at one central location, at the larger Tbilisi R&R centre, before preparing them for export abroad for final disposal. Once the identified stocks are put in ISO tanks, tanks will be tested before export.

The country seeks assistance in four directions under this component:

- purchasing and delivery of two ISO containers (950kg each) and ancillary equipment to help aggregating ODS waste in one location;
- organization of Inception workshop for stakeholders involved in ODSs waste storage/handling;
- ODS waste transportation from different locations to the centralized center in Tbilisi for aggregation by authorized waste handling company;
- testing ODS waste before export by gas-chromatograph (which requires calibration and certification).

It is important to emphasize that staff responsible for operating the gas-chromatograph would need to be trained, after state certification, on appropriate use of the equipment. Therefore, special technical training will be organized in this regard. Details of the associated cost are included in Table 3. The implementation of component will demonstrate that the ODS waste can be managed in an environmentally sound and sustainable manner.

Component 2: Transportation and actual destruction

The transportation and export of collected ODS waste is considered appropriate for Georgia since the country has direct access to sea through two big ports in Poti and Batumi located at the Black Sea. Current pricing for POPs shipped from Eastern Europe is about US$2.8/kg. These costs exclude Basel Convention's related transactions, local administration/supervision, local handling and sea container transportation. Reasonable expected total costs for disposal taking into account very low current volume of unwanted ODSs are estimated in this project at US$8/kg, including US$3/kg for transportation.

International bidding and disposal for ODS waste will be carried out in conjunction with bidding processes led by the existing GEF/UNDP programme on POPs pesticides destruction. Appropriate coordination between the two projects will be ensured through Component 4 on project management.

Component 3: Policy, regulatory and institutional support to sustain the destruction of ODSs in the country

The main direction of this component is to ensure that existing programmes of ODS disposal can operate effectively and be self-sustained. It is very important to ensure that mandatory requirements for destroying ODSs wastes are put in place. However, it is extremely important to ensure that the institutional and technical capacity to handle ODS wastes for final disposal is improved. Introducing a law at this stage that would require mandatory disposal of ODSs waste by owners, when there is no efficient waste handling system in place, could potentially encourage simple venting of the waste gas. Therefore, building the capacity of local stakeholders would be essential to prepare grounds for the establishment of such legislation.

The R&R Centre in Tbilisi will be considered as the ODS waste management facility which can be used as training center for technicians locally on the economic, social and environmental benefits of maximizing ODS recovery and to minimize leakage for demonstrating best practices. This component expects minimal MLF support since the component will also build on experience and ensure synergies with the GEF/UNDP POPs project. The project team will track and follow legal and institutional requirements for hazardous waste management as developed by the POPs project. It should be noted that the Basel Convention would not prevent the movement of ODS between countries that have ratified this MEA. For shipment of ODS-waste, standard Basel documentation including prior consent and proper training of the staff would be required. The technical capacity built by both programmes will remain in place and will be utilized in future for disposal of additionally accumulated ODS waste stocks.

Special regulatory requirements will be introduced for decommissioning refrigeration equipment which contains ODS with disposal obligations. The R&R centre in Tbilisi will be responsible for analytical checks of the collected ODSs. Based on results, the R&R Centre will issue a report which will define the quality of ODS waste. If the analysis shows that collected ODS are not suitable for further recovery and recycling, ODS can be considered as waste and the R&R Center will be required to ensure these amounts would be disposed of by methods approved in hazardous waste legislation. In support of the costs attached to the waste disposal, a dedicated financial mechanism will be established by increasing and respective apportioning of the recovery/recycling fees charged by R&R offices in their daily operations.

Component 4: Project management and monitoring

The implementation of this demonstration project will need to be closely aligned and coordinated with the various policy, regulatory, awareness and capacity-building actions that Georgia is taking to ensure that the implementation of the project is consistent with the priorities under the chemical and waste management focal area. The project will be managed by Project Implementation Team operating under the Montreal Protocol Enabling Activities (EA) programme of UNDP. The Ministry of Environment Protection of Georgia as an implementing partner for the programme has already designated the National Project Director (NPD) who "supports the program or project and serves as a focal point on the part of government". NPD responsibility normally entails ensuring effective communications between the partners and monitoring of progress towards expected results. The project Executive Board composed of the representatives of the NOU, the Ministry and UNDP as well as a National Project Director, Project Manager, National Ozone Focal Point and representative of the Georgian Association of

Refrigerating, Cryogenic and Air-conditioning Engineers will be overseeing the activities under the programme.

The management support component of the project will include the following activities for the duration of the project:

- management and co-ordination of the project implementation with the GEF POPs project;
- co-ordination of the project implementation with the other national and regional initiatives (Georgia is a part of) in the safe chemical management;
- establishment of the framework to enable the country to acquire and exercise the implementation of training, awareness and capacity-building activities for key stakeholders to ensure a commitment to the Project objectives and obligations.
- creation of awareness about ODSs destruction among consumers and technicians through workshops, brochures and other information dissemination measures
- verification of results of the demonstration project and establishment and operation of a reporting system for collected refrigerants in cooperation with service companies, importers, car dismantling and metal scrapping companies

At the end of project implementation, and as a part of the project monitoring, a summary report will be prepared that would describe the following important elements:

- summary and status of MLF supported activities, including legislative improvements and costs involved for ODS waste export;
- an outline of joint activities implemented by the MLF project in combination with the GEF/UNDP programme (synergies achieved and lessons learned; actual cost savings);
- list of recommendations for consideration by other LCV countries interested in pursuing such joint planning approaches.

The pilot project will develop this report in English language for dissemination of results of the project in LVC countries operating under A5 countries of the MP. It is important to emphasize that the replication potential of this project is very significant and it is applicable not only at the sub-regional level (Caucasus region in particular or other CIS countries) where countries are currently seeking to implement similar measures but the replication effect could be larger - in any LVC countries where obsolete pesticide stockpiles and unwanted ODSs have been identified and are to be eliminated in environmentally sound manner. Therefore, lessons learned from the project implementation potentially could be of a good value to many countries.

6. IMPLEMENTATION SCHEDULE

Table 2: Implementation schedule

Activities	2013				2014				2015			
	Q2	Q3	Q4	Q2	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Purchasing three ISO container (950 kg each)												
Inception workshop for stakeholders involved in ODSs waste handling/ storage												
Transportation of ODSs from different locations to a centralized location in Tbilisi												
Calibration/ certification of gas-chromatograph and testing of the stocks before export												
Export, transportation and actual destruction												
Policy, regulatory and institutional support												
Final evaluation meeting												

7. PROJECT COST

Table 3: Project budget

Activity type	Cost (US$)
Purchasing two ISO container (950 kg each) and ancillary equipment	6,000
Inception workshop for stakeholders involved in ODSs destruction	3,000
Transportation of ODSs from different locations to a centralized location in Tbilisi (16 locations)	3,200
Aggregation, Calibration/certification of gas-chromatograph, and testing of the stocks before export	5,000
Training of staff and technicians	2,000
Transportation and actual destruction (2,133 kg X 8USD)	17,064
Project management (part time 25% - 24 monthsX500 USD)	12,000
Pilot project summary report preparation (and, printing costs)	7,000
Grand total	**55,264**