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COMITÉ EXÉCUTIF
DU FONDS MULTILATÉRAL AUX FINS
D'APPLICATION DU PROTOCOLE DE MONTRÉAL
Soixante-neuvième réunion
Montréal, 15 – 19 avril 2013

PROPOSITION DE PROJET : GÉORGIE

Le présent document contient les observations et les recommandations du Secrétariat du Fonds sur les propositions de projet suivantes :

Destruction

- Projet pilote de démonstration de la gestion et de la destruction des déchets de SAO

PNUD

**FICHE D'ÉVALUATION DE PROJET – PROJETS PLURIANNUELS
GÉORGIE**

TITRE DU PROJET

AGENCE D'EXÉCUTION

Projet pilote de démonstration de la gestion et de la destruction des déchets de SAO

PNUD

AGENCE NATIONALE DE COORDINATION : Ministère de la Protection de l'environnement de la Géorgie

DERNIÈRES DONNÉES DE CONSOMMATION DE SAO DÉCLARÉES DANS LE PROJET

A : DONNÉES DE L'ARTICLE 7 (TONNES PAO EN 2011)

Annexe I, CFC	0		

B : DONNÉES SECTORIELLES DU PROGRAMME DU PAYS (TONNES PAO, 2011)

SAO	Sous-secteur/quantité	Sous-secteur/quantité	Essais
CFC			0

PLAN D'ACTIVITÉS DE L'ANNÉE EN COURS :

Financement total 92 376 \$US Élimination totale 3,0 tonnes PAO

TITRE DU PROJET

UTILISATION DE SAO À L'ENTREPRISE		s.o.
SAO À ÉLIMINER		s.o.
SAO À INCLURE		s.o.
PROJET DANS LE PLAN D'ACTIVITÉS ACTUEL		Oui
SECTEUR		Déchets de SAO
SOUS-SECTEUR		Secteur de l'entretien en réfrigération
EFFETS DU PROJET		2,13 tonnes métriques de CFC-12
DURÉE DU PROJET		24 mois
PROPRIÉTÉ LOCALE		100 %
ÉLÉMENT EXPORTATION		%
SUBVENTION DEMANDÉE AU FML	\$US	55 264
COÛTS D'APPUI À L'AGENCE D'EXÉCUTION (7,5 %)	\$US	4 974
COÛT TOTAL DU PROJET POUR LE FML	\$US	60 238
COÛT-EFFICACITÉ	\$US/kg	25,9 SAO (tm)
ÉTAPES DU SUIVI DU PROJET		Inclus

RECOMMANDATION DU SECRÉTARIAT :	Pour examen individuel
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DESCRIPTION DU PROJET

Introduction

1. Au nom du gouvernement de la République de Géorgie (la Géorgie), le PNUD a présenté à la 69^e réunion une proposition pour un projet pilote de démonstration de la gestion et de la destruction des déchets de substances appauvrissant la couche d'ozone (SAO), pour un montant initialement présenté de 128 064 \$US plus des coûts d'appui d'agence de 11 526 \$US. Ce projet est présenté conformément à la décision 58/19 et portera sur la destruction de 2,13 tonnes métriques (tm) de déchets de SAO au pays.
2. À la 57^e réunion du Comité exécutif, on a décidé d'évaluer des projets pilotes de destruction des SAO qui s'inséreraient dans la décision XX/7 de la Vingtième Réunion des Parties, qui précise que les projets pilotes pouvaient payer les coûts de collecte, de transport, d'entreposage et de destruction des SAO, surtout en ce qui concerne les stocks établis de substances ayant un potentiel net élevé de réchauffement de la planète (PRG) dans un échantillon représentatif de pays visés à l'article 5 de différentes régions. Les membres ont aussi insisté pour que les projets de démonstration de la destruction des SAO soient réalisables et proposent des moyens d'obtenir du cofinancement. À la 58^e réunion, les critères et les lignes directrices pour la sélection de projets de destruction des SAO ont fait l'objet de discussion. À sa 63^e réunion, dans la décision 63/5 c), le Comité exécutif a aussi décidé « de déterminer une somme pour la destruction des SAO dans les pays à faible volume de consommation, conformément à la décision XXI/2 de la Vingt et unième Réunion des Parties, à hauteur de 3 millions \$US. »
3. Ces décisions ont servi de base pour l'examen et la recommandation du projet de démonstration de destruction des SAO de la Géorgie.

Données générales

4. À la 64^e réunion, le Comité exécutif a fourni au PNUD du financement pour préparer un projet pilote de démonstration visant la destruction des SAO en Géorgie, un pays à faible volume de consommation (PFV), projet qui serait axé sur la démonstration de la codestruction des CFC indésirables dans les stocks de pesticides désuets avec polluants organiques persistants (POP). Le Secrétariat a procédé à l'examen de cette proposition en se basant sur les principes établis dans la décision 58/19. Le Secrétariat aussi appliqué le sous-paragraphe a) ii) de la décision, qui précisait qu'aucun financement ne serait disponible pour la collecte des déchets de SAO dans le projet pilote. La définition de collecte de SAO était incluse à l'annexe VIII du rapport de la 58^e réunion intitulée « Définitions des activités figurant dans les lignes directrices intérimaires sur le financement des projets de démonstration sur la destruction des SAO ».
5. Le projet pilote de la Géorgie vise à démontrer comment on peut surmonter les obstacles techniques, financiers, réglementaires et institutionnels au moyen de synergies entre les déchets de SAO et les domaines prioritaires des stocks de pesticides désuets avec polluants qui peuvent offrir des options dotées d'avantages du point de vue des coûts et de l'environnement, et évaluer la gestion globale et la destruction des stocks de SAO indésirables dans les pays à faible volume de consommation (PFV). En faisant la démonstration d'une approche de codestruction de stocks plus grands de polluants organiques persistants pour réaliser les économies d'échelles requises, le projet vise à démontrer une option réaliste et faisable pour la destruction des SAO en Géorgie, un pays PFV qui a accumulé des quantités relativement petites de déchets de SAO au cours de périodes de temps comparativement plus longues.
6. Une proposition de projet détaillée est jointe à l'annexe I du présent document.

Description du projet

7. La proposition actuelle portera initialement sur la destruction de 2 133 kg (2,13 tonnes) de déchets de SAO indésirables qui ont déjà été collectés et qui sont temporairement stockés dans diverses installations de stockage au pays.

8. En Géorgie, le système actuel de collecte de déchets de SAO passe par la récupération et le recyclage de frigorigènes commencés en 1999. Il y a deux centres de récupération et de recyclage (R&R) techniquement très bien équipés dans l'est et l'ouest de la Géorgie. Toutefois, la plus grande partie des CFC récupérés ne pourraient être recyclés ou réutilisés parce qu'ils ont été contaminés. On a aussi commencé à récupérer et à recycler les SAO en Géorgie pendant l'élimination des CFC dans le secteur de l'entretien. Toutefois, il n'existe encore aucun système institutionnel de collecte organisé pour les appareils domestiques.

9. Lors de la mise en oeuvre du projet pilote, le gouvernement utiliserait et examinerait des synergies avec les activités du programme prévues dans le projet financé par le FEM/PNUD et intitulé « Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia » (Destruction des pesticides polluants organiques persistants et étapes initiales pour le confinement des pesticides polluants organiques persistants déversés en Géorgie), dont le ministère de la Protection de l'environnement de la Géorgie avait amorcé la mise en oeuvre en 2013. Le projet est aussi conçu pour renforcer le système national actuel de gestion des produits chimiques dangereux en Géorgie, où les SAO sont classées selon la loi comme des produits chimiques dangereux.

10. Le projet de démonstration viserait globalement à rechercher des synergies de codestruction des déchets de SAO avec des déchets de polluants organiques persistants (POP) dans un pays à faible volume de consommation où les déchets de SAO s'accumulent plus lentement et en plus petites quantités. Il évaluerait les possibilités d'obtenir des économies d'échelle qui traiteraient rapidement de telles quantités de déchets de SAO des entreprises de gestion des déchets, ce qui permettrait de réduire le coût du traitement des déchets (certains coûts essentiels peuvent demeurer inchangés, comme la déclaration du temps de traitement, le temps passé par le personnel à préparer les déchets pour l'exportation et à coordonner le transfert, et le certificat de destruction) et d'accroître les économies réalisées et l'efficacité.

11. Le projet actuel du FEM portant sur la collecte et la destruction des polluants organiques permettra d'emballer physiquement de nouveau les déchets désuets de polluants organiques persistants (actuellement déposés au site central d'enfouissement) et leur destruction sécuritaire par l'exportation vers des installations de destruction approuvées à l'étranger. Si l'on tient compte de la proximité de la Géorgie et de la capacité de destruction de l'Union européenne ainsi que des routes maritimes pour le transport des déchets, l'Europe sera jugée la destination première pour ces matières. Cette approche sera examinée en ce qui a trait aux déchets de SAO à traiter au cours de ce projet.

12. On a déterminé que les principaux éléments et les principales activités suivantes ont un rôle substantiel à jouer dans l'élaboration de synergies pour la préparation du programme conjoint de mise en oeuvre, à la fois pour le projet FEM/PNUD de gestion des pesticides contenant des polluants organiques persistants et le projet FML/PNUD pour la manutention des déchets de SAO, et ces synergies seront mises en oeuvre pour des éléments tant du FEM que du Fonds multilatéral qui portent sur :

- a) Accroissement de la sensibilisation aux risques pour la santé et l'environnement posés par les déchets dangereux et améliorations de la gestion sécuritaire des polluants organiques persistants et des déchets de SAO au pays;

- b) Révision conjointe du cadre législatif sur l'inclusion de principes sécuritaires visant les déchets dangereux dans le système législatif national;
- c) Formulation conjointe des spécifications pour l'exportation des déchets, et appel d'offres unifié selon les procédures du PNUD;
- d) Lancement conjoint de l'avis d'exportation des déchets par le ministère du gouvernement (Service de la gestion intégrée de l'environnement du ministère de la Protection de l'environnement de la Géorgie) qui participe à la mise en oeuvre des deux projets;
- e) Manutention conjointe des déchets par l'entreprise sélectionnée pour la gestion des déchets.

13. La proposition a aussi démontré que cette approche, qui porte essentiellement sur ces synergies, permettrait au Fonds multilatéral de réaliser des économies considérables, et aussi à un pays à faible volume de consommation comme la Géorgie de s'engager dans un projet pilote pour la destruction des déchets de SAO, où ces coûts sont souvent élevés.

14. Les activités particulières qui seront mises en oeuvre dans le cadre de ce projet comprennent quatre éléments :

- a) Élément 1 : Regroupement, essais, traitement des questions de santé et de sécurité
- b) Élément 2 : Transport et destruction effective
- c) Élément 3 : Soutien technique, réglementaire et institutionnel à l'appui de la destruction durable des SAO au pays
- d) Élément 4 : Gestion et suivi du projet

15. On prévoit que le projet de démonstration de la destruction des SAO sera mis en oeuvre dans 24 mois.

Estimation des SAO à détruire

16. Tel qu'on l'indique, la quantité de SAO à traiter au cours du projet pilote est de 2,13 tonnes, des CFC pour la majeure partie, ainsi qu'une petite quantité de HCFC contaminés. Tel qu'on l'a déjà mentionné, ces SAO proviennent des deux centres de récupération et recyclage (R&R) ainsi que d'autres sources (Tableau 1) :

Tableau 1 : Quantités estimatives de déchets de SAO à détruire durant le projet

Source de collecte	Quantité		TOTAL
	CFC-12 (tm)	HCFC	
Centres R&R	1 130	0	1 130
Autres sources (centres de service)	637	366	1 003
TOTAL	1 767	366	2 133

Sélection de la technologie de destruction

17. On a déterminé les options possibles pour la destruction des SAO, et on les a appariées à celles qui sont possibles dans le projet de polluants organiques persistants. Des options locales de destruction, telles que l'installation d'une capacité de destruction et d'un four à ciment, ont été envisagées. Toutefois, ces dernières ne sont pas financièrement et techniquement faisables en raison de la petite quantité de déchets dans le circuit. Le projet du FEM sur les polluants organiques persistants avait envisagé d'exporter et de détruire les déchets de polluants organiques persistants dans un pays de l'Union européenne. On a déterminé que cette option était la plus efficace, parce que les déchets de SAO seront ajoutés au circuit des déchets de polluants organiques persistants afin d'obtenir des économies d'échelle. L'ensemble du processus commencera par un appel d'offres international et la destruction finale sera officiellement confirmée dans les installations de destruction sélectionnées. En outre, les pays de l'Union européenne sélectionnés dans le processus d'appel d'offres doivent aussi se conformer aux exigences de la Convention de Bâle.

Gestion financière du projet

18. La proposition présume que le financement du Fonds multilatéral couvrira les coûts de destruction des déchets de SAO actuellement disponibles, par leur exportation vers des installations de destruction accréditées dans l'Union européenne, tel qu'il est décrit ci-dessus, avec les quantités regroupées avec le projet de destruction des polluants organiques persistants, et les critères de sélection élaborés en collaboration étroite avec le projet de polluants organiques persistants.

19. Le projet permettra aussi d'élaborer un programme durable pour l'accès à d'autres SAO indésirables qui peuvent être recueillis par deux centres de R&R du pays en collaboration avec les entreprises d'entretien, les importateurs, et les entreprises de démantèlement de véhicules et de récupération de déchets métalliques. On devrait ainsi ultérieurement pouvoir recueillir de façon régulière environ 0,5 tonne de SAO indésirables chaque année. Un système financier national sera élaboré afin de traiter ces nouveaux déchets accumulés pour destruction future sans avoir recours à des sources externes de financement.

Vérification et suivi de la destruction

20. Tel que le mentionne le paragraphe 17, les quantités de déchets de SAO qui seront détruites seront officiellement confirmées dans les installations de destruction sélectionnées. Afin de s'assurer que tous les déchets de SAO seront comptabilisés de manière appropriée, il y aura un suivi étroit du processus et un enregistrement des données. Pour ce faire, on utilisera les mêmes normes que celles qui seront élaborées pour la vérification et le suivi des déchets de polluants organiques persistants qui ont été détruits. Il n'existe aucun risque de gonflage des quantités ou des stocks non admissibles, étant donné qu'il n'y a aucune installation de production en Géorgie et que le pays n'importe des SAO que pour son propre usage.

Coût du projet

21. Le financement total demandé pour le projet a été évalué à 128 064 \$US (Tableau 2).

Tableau 2 : Coût proposé du projet

Type d'activité	Coût (\$US)
Achat de trois conteneurs ISO (950 kg chacun) et équipements auxiliaires	10 000
Atelier de mise en route pour les intéressés participant à la destruction des SAO	5 000
Transport des SAO de divers endroits vers un endroit centralisé à Tbilisi (16 endroits)	8 000
Regroupement, étalonnage/certification d'un chromatographe en phase gazeuse, et essais des stocks avant l'exportation	10 000
Formation du personnel et des techniciens	10 000
Transport et destruction effective (2 133 kg X 8 \$US)	17 064
Soutien technique, réglementaire et institutionnel	15 000
Préparation de cas et dissémination dans les pays à faible volume de consommation, atelier régional	20 000
Gestion de projet (temps partiel 25 % - 30 mois X 600 \$US)	18 000
Consultant international	15 000
Total global	128 064

OBSERVATIONS ET RECOMMANDATIONS DU SECRÉTARIAT

OBSERVATIONS

22. Le Secrétariat a offert des commentaires et des observations sur le projet en fonction de l'examen après l'établissement de critères dans la décision 58/19. Il a soulevé un certain nombre de questions, la principale étant le manque d'informations requises dans le cadre de la décision 58/19 b) pour les présentations des projets finals. Il a aussi demandé des explications sur l'approche de ce projet, parce que, tel qu'il a été initialement présenté, les synergies et le lien entre ce projet et le projet du FEM sur la collecte et la destruction de polluants organiques persistants, qui visaient principalement l'approbation de la préparation du projet, n'étaient pas très clairs dans la proposition. Le PNUD a expliqué que, puisque la Géorgie était un pays à faible volume de consommation, il était difficile de concevoir un projet qui pourrait fournir une valeur de démonstration qui serait utile à d'autres pays similaires ayant de petites quantités de déchets de SAO. L'idée des synergies avec les polluants organiques persistants était une façon de permettre d'évaluer une option dans un projet où du financement était déjà disponible, et où ce projet pourrait se joindre au travail institutionnel qui permettrait une mise en oeuvre efficiente. Le PNUD a aussi souligné que ce projet est étroitement soutenu par le gouvernement de la Géorgie, qui s'est engagé à s'assurer que les mesures institutionnelles visant à obtenir de telles synergies sont en place.

23. Le Secrétariat a aussi demandé des explications sur le système de collecte, à quel point il était en place et quelle était sa base légale. Le PNUD a mentionné que, actuellement, bien qu'il y ait deux centres de R&R, le système de collecte est très simple. Le projet pilote actuel mettra donc aussi en place des mesures visant l'établissement d'un programme de regroupement des déchets et des coûts de destruction, lequel permettrait de recueillir d'autres déchets de SAO par le truchement de l'infrastructure existante conçue pour la réutilisation des SAO. On visera aussi le démantèlement des anciens équipements, la reconversion et la récupération des gaz aux centres de R&R, et l'on produira un programme financier

durable pour leur destruction future dans le cadre des honoraires reçus aux centres de R&R pour les équipements et la reconversion.

24. Le Secrétariat s'est aussi interrogé sur la durabilité du projet lorsque la phase pilote sera terminée. Le PNUD a indiqué que le gouvernement s'est engagé à s'assurer que cette synergie est pleinement institutionnalisée dans son programme de gestion et de destruction des déchets de produits chimiques, et que sa mise en oeuvre serait une priorité. Tel que l'indique le paragraphe 19 ci-dessus, le projet élaborera aussi un programme de durabilité pour avoir accès à d'autres SAO indésirables à recueillir par les deux centres de R&R, ainsi qu'un programme financier national pour traiter ces nouveaux déchets accumulés pour destruction future sans avoir recours à des sources de financement externes.

25. Après la poursuite des discussions avec le PNUD, le Secrétariat a pris note que la méthode de destruction des déchets de SAO en Géorgie, axée sur des synergies avec un projet existant en rapport avec une autre convention chimique, offrirait une expérience valable et des leçons apprises pour des pays similaires où les circuits de déchets de SAO sont très petits, et que le regroupement de déchets chimiques pour la destruction est un bon concept doté d'une valeur élevée de démonstration. Il a souligné que ces expériences devraient être documentées dans un rapport final, et souligner aussi les leçons particulières apprises ainsi que les étapes ayant mené à une telle coopération, et les mesures institutionnelles mises en place afin d'assurer le succès de cette collaboration. Le Secrétariat a suggéré au PNUD que ce rapport soit l'un des objectifs du projet, et qu'il fournisse autant de détails que possible sur les résultats du projet, en tenant compte de son application possible aux pays à faible volume de consommation. Le PNUD a tenu compte de ces observations et d'autres suggestions du Secrétariat et il a révisé le projet en conséquence.

Le Secrétariat a aussi attiré l'attention du PNUD sur le coût total du projet et le coût correspondant par kilogramme des SAO détruites, lequel, au moment de la présentation initiale, était de 60 \$US/kg. Le PNUD a indiqué que cette situation était attribuable à la petite quantité de SAO qui pourrait être éliminée dans le cadre de la présentation actuelle. Le Secrétariat a demandé au PNUD d'examiner les coûts afin de déterminer si des rajustements pouvaient être apportés, et de s'assurer que les activités communes aux polluants organiques persistants du FEM et aux projets du Fonds multilatéral soient évaluées en conséquence. Ce rajustement a permis d'en arriver à un coût de 25,9 \$US/kg de SAO détruites. Ce coût est plus élevé que le coût maximal admissible de 13,2 \$US/kg en vertu de la décision 58/19, mais puisque la Géorgie est un pays à faible volume de consommation, il n'est pas couvert dans cet élément particulier de la décision. La destruction de 2,1 tonnes métriques de CFC-12 entraînera une réduction unique de 22 890 tonnes équivalent-CO₂ des émissions en Géorgie.

26. Le coût final du projet a été établi à 55 264 \$US plus des coûts d'appui de 4 974 \$US (Tableau 3).

Tableau 3 : Coût final proposé du projet pilote pour la destruction des SAO en Géorgie

Type d'activité	Coût \$US)
Achat de deux conteneurs ISO (950 kg chacun) et équipements auxiliaires	6 000
Atelier de mise en route pour les intéressés participant à la destruction des SAO	3 000
Transport des SAO de divers endroits vers un endroit centralisé à Tbilisi (16 endroits)	3 200
Regroupement, étalonnage/certification d'un chromatographe en phase gazeuse, et essais des stocks avant l'exportation	5 000
Formation du personnel et des techniciens	2 000
Transport et destruction effective (2 133 kg X 8 \$US)	17 064
Gestion de projet (temps partiel 25 % - 24 mois X 600 \$US)	12 000
Préparation du résumé du projet pilote (et coûts d'impression)	7 000
Total global	55 264

RECOMMANDATION

27. Le Comité exécutif peut souhaiter envisager de :
- a) Prendre note avec satisfaction de la présentation par le gouvernement de la Géorgie d'un projet pilote de gestion et de destruction des déchets de SAO visant à détruire au total 2,13 tonnes métriques des déchets de SAO;
 - b) Décider s'il doit améliorer la mise en oeuvre d'un projet pilote pour la gestion et la destruction des déchets de SAO en Géorgie pour un montant de 55 264 \$US plus des coûts d'appui d'agence de 4 974 \$US pour le PNUD, et que l'approbation était sous réserve que :
 - i) Aucun autre financement ne serait disponible en Géorgie pour tout projet ultérieur de destruction des SAO;
 - ii) Toute commercialisation de la réduction des émissions de gaz à effet de serre qui est produite par le projet ou y est associée ferait l'objet d'une décision du Comité exécutif; et
 - c) Demander au gouvernement de la Géorgie, par l'entremise du PNUD, d'établir un système de suivi des opérations et des activités associées au projet de démonstration de la destruction de SAO, et demander au PNUD de présenter un rapport au Comité exécutif après l'achèvement du projet en 2015, en s'assurant qu'aucune commercialisation des réductions d'émissions de gaz à effet de serre n'avait eu lieu.

PROJECT COVER SHEET

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 through 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	MLF¹ 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 centers⁵. 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