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COMITÉ EXÉCUTIF
DU FONDS MULTILATERAL AUX FINS
D'APPLICATION DU PROTOCOLE DE MONTRÉAL
Cinquante-neuvième réunion
Port Ghalib, Égypte, 10 - 14 novembre 2009

AMENDEMENTS DU PROGRAMME DE TRAVAIL DE L'ONUDI DE L'ANNEE 2009

OBSERVATIONS ET RECOMMANDATION DU SECRÉTARIAT DU FONDS

1. L'ONUDI demande au Comité exécutif d'approuver 1 898 031 $US, plus des coûts d'appui d'agence de 142 352 $US, pour des amendements de son programme de travail de 2009.

2. Le Tableau 1 ci-après indique les activités proposées dans les amendements du programme de travail de l'ONUDI:

Tableau 1: Amendements du Programme de travail de l'ONUDI

Pays	Activité/Projet	Montant demandé ($US)	Montant recommandé ($US)
SECTION A: ACTIVITÉS RECOMMANDÉES POUR APPROBATION GÉNÉRALE			
A1. Renouvellement de projets de renforcement des institutions :			
Jamahiriya arabe libyenne	Renforcement des institutions (Phase II)	73 702	73 702
Serbie	Renforcement des institutions (Phase III)	71 121	71 121
	Sous-total pour A1 :	144 823	144 823
A2. Financement supplémentaire pour la préparation de plans de gestion de l'élimination des HCFC (PGEH) :			
Équateur	Financement supplémentaire pour la préparation de plans de gestion de l'élimination des HCFC	75 000	75 000[1]
Iraq	Financement supplémentaire pour la préparation de plans de gestion de l'élimination des HCFC	65 000	65 000
Pakistan	Financement supplémentaire pour la préparation de plans de gestion de l'élimination des HCFC	45 000	45 000
Soudan	Financement supplémentaire pour la préparation de plans de gestion de l'élimination des HCFC	120 000	120 000
	Sous-total pour A2 :	305 000	305 000
A3. Préparation de projet pour les PGEH (volet « investissement ») :			
Algérie	Préparation de projet pour des activités d'investissement dans les secteurs de la climatisation, de la fabrication et des mousses	100 000	100 000
Pakistan	Préparation de projet pour des activités d'investissement dans les secteurs de la réfrigération et des mousses	200 000	200 000
Philippines	Préparation de projet pour des activités d'investissement dans le secteur des mousses	70 000	70 000
Afrique du Sud	Préparation de projet pour des activités d'investissement dans le secteur des mousses	150 000	150 000
Soudan	Préparation de projet pour des activités d'investissement dans les secteurs de la climatisation, de la fabrication et des mousses	100 000	100 000
	Sous-total pour A3 :	620 000	620 000
SECTION B: ACTIVITÉS RECOMMANDÉES POUR EXAMEN INDIVIDUEL			
B.1 Renouvellement de projets de renforcement des institutions :			
Qatar	Renforcement des institutions (Phase III)	48 208	*
	Sous-total pour B1 :	48 208	
B.2 Préparation de projets pour des projets de démonstration sur les HCFC :			
Chine	Projet de démonstration de technologie des HC comme agent de gonflage dans le secteur de la mousse extrudée	30 000	[2]
	Sous-total pour B2 :	30 000	
B3. Préparation de projet pour des projets pilotes de destruction des SAO :			
Algérie	Préparation de projet pour des projets pilotes de destruction des SAO	85 000	*
Cameroun	Préparation de projet pour des projets pilotes de destruction des SAO	40 000	[2]

Chine	Préparation de projet pour des projets pilotes de destruction des SAO	85 000	*
Égypte	Préparation de projet pour des projets pilotes de destruction des SAO	60 000	[2]
Iran	Préparation de projet pour des projets pilotes de destruction des SAO	60 000	[2]
Nigeria	Préparation de projet pour des projets pilotes de destruction des SAO	60 000	[2]
République arabe syrienne	Préparation de projet pour des projets pilotes de destruction des SAO	60 000	[2]
	Sous-total pour B3 :	450 000	
B4. Assistance technique :			
Mondial	Mobilisation de ressources pour éliminer les HCFC et en maximiser les avantages environnementaux connexes	300 000	*
	Sous-total pour B4 :	300 000	
Sous-total pour les sections A et B :		1 898 031	1 069 823
Coûts d'appui d'agence (7,5 % pour la préparation de projets et le renforcement des institutions et pour d'autres activités de plus de 250 000 $US, et 9 % pour d'autres activités de moins de 250 000 $US) :		142 352	80 236
Total:		2 040 383	1 150 059

*Projet en suspens ou destiné à être examiné individuellement
[1] Examiné dans le document UNEP/OzL.Pro/ExCom/59/4
[2] Examiné dans le document UNEP/OzL.Pro/ExCom/59/11

SECTION A: ACTIVITÉS RECOMMANDÉES POUR APPROBATION GÉNÉRALE

A1. Renouvellement de projets de renforcement des institutions :

(a) Jamahiriya arabe libyenne (Phase II): 73 702 $US
(b) Serbie (Phase III): 71 121 $US

Description du projet

3. L'ONUDI a soumis des demandes de prolongation pour des projets de renforcement des institutions (RI) dans les deux pays indiqués ci-dessus. Ces demandes sont décrites dans l'Annexe I au présent document.

Observations du Secrétariat

4. Ayant examiné les rapports des projets RI en phase finale et les plans d'action soumis par l'agence au nom des pays indiqués ci-dessus à l'appui des demandes de prolongation, le Secrétariat du Fonds a conclu que ces rapports étaient de bon aloi et conformes aux exigences.

5. Dans son examen des projets, le Secrétariat a tenu compte de la décision 57/36 b), par laquelle le Comité a décidé « de continuer à financer les demandes de renouvellement des projets de RI jusqu'à la fin décembre 2010, aux niveaux actuels, en attendant la résolution finale de cette question par le Comité exécutif à sa 58e réunion ». À sa 58e réunion, le Comité exécutif a confirmé cette position en décidant « d'approuver les renouvellements du renforcement des institutions jusqu'au 31 décembre 2010 » (décision 58/16). Compte tenu de ces décisions, le financement recommandé pour le renouvellement des projets de RI a été calculé au pro rata pour la période allant seulement jusqu'en décembre 2010.

Recommandations du Secrétariat

6. Le Secrétariat du Fonds recommande l'approbation générale des demandes de renouvellement des projets de RI de la Jamahiriya arabe libyenne et de la Serbie, au niveau de financement indiqué au Tableau 1 ci-dessus. Le Comité exécutif est invité à communiquer aux gouvernements de ces pays les observations figurant à l'Annexe II au présent document.

A2. Financement supplémentaire pour la préparation de plans de gestion de l'élimination des HCFC (PGEH) :

Iraq: Financement supplémentaire pour la préparation de PGEH: 65 000 $US
Pakistan: Financement supplémentaire pour la préparation de PGEH: 45 000 $US
Soudan: Financement supplémentaire pour la préparation de PGEH: 120 000 $US

Description du projet

7. L'ONUDI a soumis des demandes de financement supplémentaire pour la préparation de projets, soit 65 000 $US pour l'Iraq, 45 000 $US pour le Pakistan et 120 000 $US pour le Soudan, pour lesquels des fonds ont été approuvés à cette fin à la 55e réunion. Ces demandes sont soumises parce que ces trois pays ont communiqué en 2007 des données au titre de l'article 7 qui indiquaient un niveau de consommation de HCFC qui, selon la décision 56/16, les rendait admissibles à un financement supplémentaire pour la préparation de PGEH.

Observations du Secrétariat

8. Le Secrétariat constate que ces demandes sont conformes avec la décision 56/16, selon laquelle les pays sont admissibles à un financement supplémentaire pour la préparation de PGEH, en fonction de leurs données officielles de 2007 visées à l'article 7. Dans le cas du Soudan et de l'Iraq, les deux pays ont reçu 30 000 $US à la 55e réunion, parce qu'au moment de la réunion, ils n'avaient pas encore soumis de données officielles de consommation de HCFC et étaient donc classés dans la catégorie des pays ne disposant pas de données sur les HCFC. En 2007, leurs données de consommation de HCFC communiquées au titre de l'article 7 montrent qu'ils sont admissibles à recevoir des fonds supplémentaires aux termes de la décision 56/16.

9. Le Pakistan quant à lui a reçu 150 000 $US à la 55e réunion compte tenu de sa consommation de HCFC. Il a par la suite révisé ses données pour 2007 et demande un montant supplémentaire de 45 000 $US, parce que ces données le placent dans la catégorie des pays admissibles à un financement supplémentaire aux termes de la décision 56/16. Les données de 2007, communiquées au titre de l'article 7 par ces trois pays, appuient leurs demandes, comme il est indiqué ci-après:

Pays	Consommation de HCFC (2007) communiquée au titre de l'article 7 (tonnes PAO)		
	HCFC-22	HCFC-141b	Total
Iraq	106,6	2,8	109,4
Pakistan	116,25	67,43	183,7
Soudan	2,64	6,16	8,8

Recommandation du Secrétariat

10. Le Secrétariat du Fonds recommande l'approbation générale des demandes de financement supplémentaire de l'Iraq, du Pakistan et du Soudan pour la préparation de plans de gestion de l'élimination de HCFC, au niveau de financement indiqué dans le Tableau 1 ci-dessus.

A3. Préparation de projets pour le volet « investissement » des PGEH

Algérie	Préparation de projet pour des activités d'investissement dans les secteurs de la climatisation, de la fabrication et des mousses	100 000
Pakistan	Préparation de projet pour des activités d'investissement dans les secteurs de la climatisation, de la fabrication et des mousses	200 000
Philippines	Préparation de projet pour des activités d'investissement dans le secteur des mousses	70 000
Afrique du Sud	Préparation de projet pour des activités d'investissement dans le secteur des mousses	150 000
Soudan	Préparation de projet pour des activités d'investissement dans les secteurs de la climatisation, de la fabrication et des mousses	100 000

Description du projet

11. L'ONUDI a demandé des fonds supplémentaires pour la préparation d'activités d'investissement pour les cinq pays indiqués ci-dessus, pour lesquels des fonds ont déjà été approuvés pour la préparation de PGEH. Dans sa demande, l'ONUDI a présenté des informations essentielles sur la consommation de HCFC de ces pays et sur les secteurs où ces HCFC sont consommés, en expliquant de quelle façon leurs plans sectoriels s'encadreront dans un PGEH général, en particulier pour les pays où la mise en œuvre est assurée conjointement par plusieurs agences d'exécution. Les informations à l'appui de chacune des demandes figurent dans les amendements du programme de travail de l'ONUDI, présentés en pièce jointe au présent document.

Observations du Secrétariat

12. Le Secrétariat a étudié en détail les demandes de l'ONUDI, en demandant des précisions s'il y a lieu. Dans son examen, le Secrétariat a constaté que les renseignements présentés par l'ONUDI pour chacun des pays et leurs demandes de financement sont conformes aux exigences de la décision 56/16. Le Secrétariat a noté en particulier que l'ONUDI avait consulté d'autres agences avec lesquelles elle collaborait sur le processus de préparation des PGEH et que la répartition des responsabilités de chacune des agences était bien comprise.

13. En ce qui concerne les Philippines, le Secrétariat a formulé les mêmes observations que celles qu'elle avait faite pour la demande du PNUD, et a conclu que cette demande pouvait être soumise à l'approbation puisque le pays est admissible au financement aux termes de la décision 56/16.

Recommandation du Secrétariat

14. Le Secrétariat recommande l'approbation générale des demandes de financement pour la préparation des activités d'investissement pour les PGEH en Afrique du Sud, en Algérie, au Pakistan, aux Philippines et au Soudan, aux niveaux de financement indiqués dans le Tableau 1 ci-dessus.

SECTION B: ACTIVITÉS RECOMMANDÉES POUR EXAMEN INDIVIDUEL

B1. Renouvellement de projets de renforcement des institutions :

(a) Qatar (Phase III): 48 208 $US

Description du projet

15. L'ONUDI a soumis une demande de renouvellement du projet de RI au Qatar. Cette demande est décrite à l'Annexe I au présent document.

Observations du Secrétariat

16. Le Secrétariat du Fonds a examiné le rapport du projet de RI en phase finale, ainsi que le plan d'action soumis par l'agence au nom du Qatar à l'appui de la demande, et il a trouvé que le rapport est de bon aloi et conforme aux exigences pertinentes.

17. Dans son examen du projet, le Secrétariat a tenu compte de la décision 57/36 b), par laquelle le Comité a décidé « de continuer à financer les demandes de renouvellement des projets de RI jusqu'à la fin décembre 2010, aux niveaux actuels, en attendant la résolution finale de cette question par le Comité exécutif à sa 58e réunion ». À sa 58e réunion, le Comité exécutif a confirmé cette position en décidant « d'approuver les renouvellements du renforcement des institutions jusqu'au 31 décembre 2010 » (décision 58/16). Compte tenu de ces décisions, le financement recommandé pour le renouvellement des projets de RI a été calculé au pro rata pour la période allant seulement jusqu'en décembre 2010.

18. Le Secrétariat note toutefois que le Qatar n'a pas encore soumis de données sur son programme de pays pour 2008, qui étaient dues au 1er mai 2009. La décision 52/5 f) stipule en effet que « les données sur la mise en œuvre du programme de pays doivent être présentées avant la dernière réunion de l'année et les réunions subséquentes comme condition préalable à l'approbation et au décaissement des fonds pour ces projets ». En l'absence de données du Qatar, la demande est présentée aux fins d'examen individuel par le Comité exécutif.

Recommandation du Secrétariat

19. Le Comité exécutif est invité à examiner cette demande à la lumière de sa décision 52/5 f) et à approuver la demande de renouvellement du projet de RI du Qatar si les données de 2008 sur son programme de pays étaient officiellement soumis au Secrétariat du Fonds multilatéral d'ici la 59e Réunion. S'il approuve la demande, le Comité exécutif est également invité à communiquer au gouvernement du Qatar les observations qui figurent à l'Annexe I au présent document.

B2. Préparation de projet pour des projets de démonstration sur les HCFC :

Chine: Préparation de projet pour un projet de démonstration de remplacement des HCFC par des hydrocarbures dans le secteur de la mousse extrudée (30 000 $US)

Observations et recommandations du Secrétariat :

20. L'ONUDI a soumis, au nom du gouvernement de la Chine, une demande de préparation de projet pour un projet de démonstration de remplacement des HCFC par des hydrocarbures dans le secteur de la mousse extrudée. Le Secrétariat a informé l'ONUDI que ce projet ne figure pas sur la liste des projets de démonstration convenus par le Comité exécutif dans sa décision 57/6, ni dans le plan d'activités pour 2009. Le Secrétariat a demandé à l'ONUDI de retirer ce projet pour cette raison. L'ONUDI a informé le

Secrétariat que le projet ne pouvait pas être retiré, puisqu'il s'agissait d'une demande officielle de la Chine.

21. Le Secrétariat a abordé cette question dans le document UNEP/OzL.Pro/ExCom/59/11 Overview of issues identified during projet review. Le Comité exécutif est invité à examiner la demande de préparation de projet pour un projet de démonstration de remplacement des HCFC par des hydrocarbures dans le secteur de la mousse extrudée en Chine, à la lumière des informations présentées dans le présent document.

B3. Préparation de projet pour des projets pilotes de destruction des SAO

Algérie: Préparation de projet pour des projets pilotes de destruction des SAO: 85 000 $US
Cameroun: Préparation de projet pour des projets pilotes de destruction des SAO: 40 000 $US
Chine: Préparation de projet pour des projets pilotes de destruction des SAO: 85 000 $US
Égypte: Préparation de projet pour des projets pilotes de destruction des SAO: 60 000 $US
Iran: Préparation de projet pour des projets pilotes de destruction des SAO: 60 000 $US
Nigeria: Préparation de projet pour des projets pilotes de destruction des SAO: 60 000 $US
République arabe syrienne: Préparation de projet pour des projets pilotes de destruction des SAO: 60 000 $US

Contexte

22. À sa 58e réunion, le Comité exécutif a approuvé une série de lignes directrices intérimaires pour le financement des projets de démonstration pour la destruction des SAO conformément au paragraphe 2 de la décision XX/7 de la Réunion des Parties. Dans sa décision 58/19, le Comité est convenu en outre « que le Fonds multilatéral financera un nombre restreint de projets de démonstration sous réserve de conditions précises » énoncées dans la décision.

23. Dans le cas des demandes de financement pour la préparation de projets, les soumissions devront inclure les informations ci-après :

(a) Une indication des catégories d'activités pour la destruction des SAO (collecte, transport, entreposage, destruction) qui seront incluses dans la proposition de projet ;

(b) Une mention indiquant si les programmes de destruction pour des produits chimiques liés à d'autres accords multilatéraux sur l'environnement sont actuellement en cours dans le pays ou prévus dans un proche avenir, et si des synergies sont éventuellement possibles ;

(c) Une estimation de la quantité de chaque SAO qui sera traitée dans le cadre du projet ;

(d) La base de calcul pour l'estimation de la quantité de SAO; cette estimation doit être fondée sur les stocks existants connus déjà recueillis, ou sur les efforts de collecte qui en sont déjà à un stade très avancé et bien documenté de mise en place ;

(e) Pour les activités de collecte, les informations concernant les initiatives et les programmes crédibles de collecte déjà en cours ou prévus pour bientôt qui en sont à un stade avancé de mise en place et qui sont liés aux activités du projet ;

(f) Pour les activités portant au moins partiellement sur le tétrachlorure de carbone ou les halons, une explication montrant en quoi ce projet pourrait représenter une importante valeur de démonstration ;

24. L'ONUDI a soumis des demandes pour la préparation de projets de destruction de SAO dans sept pays. Sur ces sept pays, seules l'Algérie et la Chine ont fourni les informations minimales requises indiquées dans la décision 58/19 a) iv) et ce sont donc les seuls pays dont les projets sont décrits ci-après.

25. Le Secrétariat a noté qu'aucune des sept demandes ne figure dans la liste des projets pilotes prioritaires pour la destruction des SAO convenus par le Comité exécutif dans sa décision 57/6, mais que ces demandes sont incluses dans l'Annexe III au rapport de la 57e réunion du Comité exécutif, qui contient une liste de tous les projets pilotes de destruction des SAO qui ont été retirés des plans d'activités des agences pour 2009, à l'exception de l'Algérie. Dans le document UNEP/OzL.Pro/ExCom/59/11 (Overview of issues identified during projet review), le Secrétariat a abordé, en termes de question de politique, la question des informations exigées dans la décision 58/19 pour cinq des sept demandes de projets pilotes pour la destruction des SAO. Le Comité exécutif est invité à se pencher sur la question à la lumière des informations figurant dans le présent document.

Algérie: Préparation de projet pour un projet pilote de destruction des SAO (85 000 $US)

Description du projet

26. Le projet pilote de destruction des SAO proposé pour le gouvernement d'Algérie fera l'étude d'une méthode de destruction de 150 tonnes PAO de SAO superflues dans le pays. Il s'agit d'une combinaison de CFC-11 et de CFC-12 recueillis des programmes de récupération et de recyclage dans le pays. D'après la proposition, la quantité indiquée représente 13 % du volume total de SAO destinées à la destruction dont la collecte est entreprise par le gouvernement algérien.

27. Dans sa demande de préparation de projet, l'ONUDI indique qu'elle fournira au pays sa vaste expérience sur les meilleures technologies, politiques et stratégies de transport et de destruction des SAO dans le pays. Elle examinera également les possibilités de financement conjoint par des programmes pertinents.

28. La proposition ne précise pas quelle technologie fera l'objet de démonstration, mais indique simplement qu'elle examinera les solutions disponibles les plus efficaces par rapport au coût, notamment l'exportation aux fins de destruction, ainsi que les installations en place qui pourraient être reconverties localement en centre de destruction. Les fonds demandés couvriront le transport, l'entreposage et la destruction (ou l'exportation aux fins de destruction) de la quantité de SAO indiquée. L'ONUDI précise que le gouvernement d'Italie a indiqué qu'il serait intéressé par la possibilité d'une collaboration à ce projet, tant à l'étape de la préparation qu'à celle de la mise en œuvre, dans le cadre de son programme bilatéral.

29. Les renseignements détaillés sur la demande sont présentés dans l'Annexe I au programme de travail de l'ONUDI joint au présent document.

Observations du Secrétariat

30. Le Secrétariat a examiné ce projet à la lumière des informations stipulées dans la décision 58/19. La soumission initiale de l'ONUDI ne comportait les données requises et le Secrétariat a dû demander à l'ONUDI comment elle a prévu l'exécution des activités de collecte dans la préparation de la demande. L'ONUDI a expliqué que tout le programme de collecte sera financé par le gouvernement d'Algérie avec des fonds nationaux réservés à l'introduction de matériel à faible consommation d'énergie dans le pays. Les éléments qui pourraient renforcer l'efficacité du programme de collecte en ce qui a trait au projet pilote de destruction proposé seront examinés durant le processus de préparation. Le Secrétariat a noté par ailleurs que la proposition indique des mesures nettes de réglementation et de législation déjà en place pour appuyer la collecte des SAO dans des banques en Algérie.

31. L'ONUDI a également informé le Secrétariat que des pourparlers sont en cours avec le gouvernement d'Italie qui serait prêt éventuellement à cofinancer le projet à titre d'assistance bilatérale. L'ONUDI a expliqué que les activités de préparation de projet permettront à l'Algérie d'examiner les éléments nécessaires liés à la technologie, à la réglementation des émissions, à la vérification des quantités précises de SAO détruites, etc.

32. À la lumière de ces réponses et de ces discussions, l'ONUDI a soumis une proposition révisée qui tient compte des observations et des points de vue du Secrétariat vis-à-vis de la décision 58/19. Cette proposition révisée est présentée à l'Annexe III au présent document aux fins d'examen par le Comité. Le Secrétariat constate par ailleurs que le montant demandé pour la préparation du projet est raisonnable et conforme aux approbations antérieures de fonds pour la préparation de projet de ce type.

Recommandation du Secrétariat

33. Le Comité exécutif est invité à examiner la demande de financement de la préparation d'un projet pilote de destruction de SAO en Algérie en tenant compte des informations présentées ci-dessus et à l'approuver conformément à la décision 58/19.

Chine: Préparation de projet pour un projet de destruction des SAO (85 000 $US)

Description du projet

34. Il s'agit d'un projet pilote qui vise la destruction de 150 tonnes PAO de déchets à base de SAO dans la province de Shandong. Ces SAO non voulues sont recueillies par New World, un centre de récupération et de recyclage d'appareils ménagers jetés aux rebuts désigné par le gouvernement. La collecte et le transport de ces vieux appareils sont financés conjointement par cette institution centrale et par les autorités locales, conformément à un règlement qui entrera en vigueur en janvier 2011 et rendra obligatoire la récupération et la mise au rebut d'appareils ménagers jetés. La collecte active de ces appareils a déjà commencé avant que le règlement ne soit en place.

35. Le projet pilote de destruction des SAO visera également à améliorer l'utilisation d'un four à gaz à New World qui sert à détruire les déchets non dangereux recueillis et que des essais initiaux ont montré qu'il pouvait aussi détruire les CFC-11 CFC-12. Les activités de préparation permettront de faire une analyse détaillée des installations de destruction des SAO de New World, afin de déterminer si leur mise à niveau permettrait de détruire les CFC dans les vieux appareils, selon les normes de destruction modernes acceptables. Le projet examinera en outre les critères détaillés de gestion aux fins de réglementation du processus de collecte et de transport des déchets et de leur destruction, incluant les procédures de surveillance, d'inspection et de vérification. Enfin, le projet étudiera la possibilité de détruire les CFC non voulus dans la mousse en incinérant le tout, c'est-à-dire sans extraction préalable.

36. Dans sa demande de financement de la préparation du projet, l'ONUDI a indiqué que ce projet pilote couvrira tous les aspects d'un système complet de gestion de déchets à base de SAO dans la province de Shandong, avec la société New World comme entreprise pilote. En fonction des résultats obtenus, il serait possible de mettre au point un processus à plus grande échelle qui contribuerait à résoudre le problème des déchets à base de SAO en Chine, où l'on trouve une vaste réserve de SAO non voulus dans les équipements.

37. Les activités de préparation du projet comprendront aussi l'examen d'autres mécanismes de financement, ainsi que d'un modèle financier d'exploitation pour la durabilité de la destruction des SAO dans le pays. Des informations détaillées sur la demande sont présentées dans l'Annexe III au programme de travail de l'ONUDI qui figure en pièce jointe au présent document.

Observations du Secrétariat

38. Le Secrétariat a examiné ce projet à la lumière des informations exigées dans la décision 58/19. Il a demandé à l'ONUDI des précisions sur le fonctionnement de New World, ainsi qu'une description de la méthode de destruction qui est actuellement utilisée. Il a aussi demandé à l'ONUDI des explications sur la procédure d'incinération des mousses pour la destruction des CFC. L'ONUDI a expliqué que le four rotatif en place à New World sert essentiellement au traitement d'autres déchets solides et qu'il est actuellement utilisé à sa capacité maximale. Or cet équipement pourrait servir également à la destruction de SAO, et le projet pilote étudiera la façon la plus efficace de le faire. L'ONUDI a mentionné en outre que l'entreprise est chargée de la collecte d'appareils jetés et que le four rotatif peut donc servir à la destruction de CFC qui serait traitée comme une activité prioritaire.

39. L'ONUDI a expliqué au Secrétariat que s'il est possible d'incinérer la mousse contenant les SAO, la procédure n'est guère efficace du point de vue de l'énergie ni de celui du coût, et il faudra envisager d'autres méthodes plus efficaces. Elle a précisé que le gouvernement du Japon serait intéressé à collaborer avec ce projet, en raison de la vaste expérience de ce pays dans la destruction de déchets à base de SAO. Le Secrétariat constate que le montant demandé pour la préparation du projet est raisonnable et conforme aux approbations antérieures de fonds pour la préparation de projet de ce type.

Recommandation du Secrétariat

40. Le Comité exécutif est invité à examiner la demande de financement de la préparation d'un projet pilote de destruction de SAO en Chine en tenant compte des informations présentées ci-dessus et à l'approuver conformément à la décision 58/19.

B4. Assistance technique

Mondial: Mobilisation de ressources pour éliminer les HCFC et en maximiser les avantages environnementaux connexes : 300 000 $US

Description du projet

41. L'ONUDI a soumis aux 57e et 58e réunions une demande pour un projet d'assistance technique visant à mobiliser des ressources pour éliminer les HCFC et en maximiser les avantages environnementaux connexes, à un niveau de financement de 300 000 $US. L'ONUDI soumet de nouveau la demande à la présente réunion. La proposition contient une note de concept, décrivant les objectifs visés, les activités prévues et les résultats escomptés du projet. La proposition est soumise de nouveau, sans changement par rapport à la demande soumise à la 58e réunion.

42. D'après la proposition, le projet établira des concepts et des méthodologies permettant de calculer les coûts supplémentaires qui incomberont au Fonds multilatéral, qui pourrait correspondre à l'introduction de produits ou de pratiques de remplacement donnant lieu à des avantages environnementaux connexes. Ces coûts supplémentaires seraient liées essentiellement aux améliorations du rendement énergétique durant la phase de fabrication, ce qui permettrait par la suite un meilleur rendement énergétique du matériel durant les opérations. L'étude déterminera de quelles façons les coûts supplémentaires pourraient être absorbés, par exemple, par le Fonds pour l'environnement mondial (FEM), par l'intermédiaire d'un mécanisme spécial établi dans le Fonds multilatéral pour permettre l'approbation d'un plus grand nombre de projets d'élimination offrant des avantages environnementaux connexes sans porter préjudice aux fonds limités disponibles au titre du mécanisme actuel de reconstitution des fonds.

43. Le projet d'assistance technique donnera les résultats suivants : a) une méthodologie de calcul du coût supplémentaire résultant si les avantages environnementaux d'une technologie particulière sont pris

entièrement en considération dans le choix de produits de rechange aux HCFC, et b) une méthodologie qui permet de calculer les avantages environnementaux découlant d'une gestion et d'une destruction appropriées des SAO non voulus. L'ONUDI envisage également d'appliquer ces méthodologies à deux de ses projets pilotes en Jordanie et à l'un des projets proposés de démonstration de destruction de SAO.

44. Le tableau ci-après indique la ventilation des 300 000 $US demandés par l'ONUDI :

Consultants internationaux	72 000
Consultants nationaux	48 000
Déplacements	30 000
Matériel	100 000
Gestion, surveillance et formation	50 000
Total	**300 000**

Observations du Secrétariat

45. Les lignes directrices sur la préparation de PGEH convenues dans la décision 54/39 recommandent que les pays visés à l'article 5 trouvent des incitations financières potentielles et des ressources supplémentaires pour cofinancer les plans de gestion de l'élimination finale afin d'assurer que l'élimination des HCFC donne des avantages, conformément au paragraphe 11, alinéa b) de la décision XIX/6 des Parties.

46. Le Secrétariat note que les résultats de l'étude proposée par l'ONUDI peuvent aider les pays à étudier leurs propres options de cofinancement en cette période de préparation de PGEH dans plus d'une centaine de pays visés à l'article 5. Il constate en outre que le Comité exécutif n'a pas formulé jusqu'ici de lignes directrices pour quantifier les avantages environnementaux de l'élimination des HCFC et pour déterminer si ces coûts pourraient être considérés comme des surcoûts au titre du Fonds multilatéral. Le Secrétariat note par ailleurs que la proposition de l'ONUDI décrit la mise au point de méthodes pour obtenir un cofinancement éventuel du FEM.

47. En examinant les coûts proposés du projet, le Secrétariat a noté que l'ONUDI avait inclus 100 000 $US d'équipement dans le budget. L'ONUDI a clarifié l'ajout d'un volet équipement en expliquant au Secrétariat que le projet comprend la démonstration, à une ou deux entreprises pilotes, des méthodologies qui seront mises au point et qu'un équipement sera nécessaire durant la phase pilote. Le Secrétariat a des doutes sur le bien-fondé d'un tel besoin d'équipement dans le contexte de ce projet de mobilisation de ressources.

48. À sa 57^{e} réunion, le Comité exécutif s'était penché sur un instrument devant permettre d'obtenir des revenus supplémentaires par des emprunts et d'autres sources (document UNEP/OzL.Pro/ExCom/57/64), et il était convenu dans sa décision 57/37 que le Secrétariat ferait une analyse plus approfondie d'un tel instrument et en soumettrait les résultats à la 58^{e} réunion du Comité.

49. À sa 58^{e} réunion, le Comité exécutif a pris la décision 58/37 de reporter l'examen de cette question et d'une autre proposition similaire à une réunion future. La proposition n'a donc pas été examinée à la 58^{e} réunion. Le Secrétariat constate que la proposition soumise de nouveau à la 59^{e} réunion sera examinée par le Comité exécutif au titre du point 11 de l'ordre du jour de cette réunion — Document de conception complémentaire sur un instrument de financement spécial pour des revenus supplémentaires provenant de prêts et autres sources.

Recommandation du Secrétariat

50. Le Comité exécutif est invité à examiner la demande d'assistance technique pour la mobilisation des ressources afin d'éliminer les HCFC et de tirer parti des avantages environnementaux connexes, à la lumière des informations présentées plus haut et des débats au titre du point 11 de l'ordre du jour — Document de conception complémentaire sur un instrument de financement spécial pour des revenus supplémentaires provenant de prêts et autres sources.

Annexe I

PROPOSITIONS DE PROJETS DE RENFORCEMENT DES INSTITUTIONS

Qatar: Renouvellement du projet de renforcement des institutions

Sommaire du projet et profil du pays	
Agence d'exécution:	ONUDI
Montants approuvés précédemment pour le renforcement des institutions ($US) :	
Phase I: Mar-99	64 171
Phase II (année 1): Déc-03	43 285
Phase II (année 2): Juil-06	44 500
Total	151 956
Montant demandé pour le renouvellement (Phase III) ($US):	48 208
Montant recommandé aux fins d'approbation pour la Phase III ($US):	48 208
Coûts d'appui d'agence ($US):	3 616
Coût total de la Phase III du renforcement des institutions pour le Fonds multilatéral ($US):	51 824
Quantité équivalente de CFC éliminés grâce à la Phase III du renforcement des institutions à 12,1 $US/kg (tonnes PAO):	n/a
Date d'approbation du programme de pays:	1999
Consommation de SAO indiquée dans le programme de pays (1999) (tonnes PAO):	0
Consommation de référence des substances réglementées (tonnes PAO):	
(a) Annexe A Groupe I (CFC) (Moyenne 1995-1997)	101,4
(b) Annexe A Groupe II (Halons) (Moyenne 1995-1997)	10,7
(c) Annexe B Groupe II (Tétrachlorure de carbone) (Moyenne 1998-2000)	0
(d) Annexe B Groupe III (Méthyle chloroforme) (Moyenne 1998-2000)	0
(e) Annexe E (Bromure de méthyle) (Moyenne 1995-1998)	0
Consommation de SAO la plus récente (2007) (tonnes PAO) visée par l'Article 7:	
(a) Annexe A Groupe I (CFC)	13
(b) Annexe A Groupe II (Halons)	0
(c) Annexe B Groupe II (Tétrachlorure de carbone)	0
(d) Annexe B Groupe III (Méthyle chloroforme)	0
(e) Annexe E (Bromure de méthyle)	0
(f) Annexe C Groupe I (HCFC)	23,5
Total	36,5
Année des données de mise en œuvre communiquées dans le programme de pays :	2007
Montant approuvé pour les projets ($US) :	1 112 453
Montant décaissé (jusqu'en septembre 2009) ($US) :	709 962
SAO à éliminer (tonnes PAO) :	89,2
SAO éliminées (jusqu'en septembre 2009) (tonnes PAO) :	86,3

1. Sommaire des activités et fonds approuvés par le Comité exécutif :

	Sommaire des activités	**Fonds approuvés ($US)**
(a)	Projets d'investissement :	242 500
(b)	Renforcement des institutions :	151 956
(c)	Préparation de projets, assistance technique, formation et autres projets ne portant pas sur des investissements :	717 997
	Total :	1 112 453

Rapport d'avancement

2. Le programme des activités liées au renforcement des institutions (RI) fait partie de l'engagement du Qatar à éliminer la consommation des SAO d'une manière ordonnée et efficace par rapport aux coûts. Durant la phase finale du RI, des efforts particuliers ont été investis dans la surveillance des importations et de la consommation des substances appauvrissant la couche d'ozone (SAO) par des systèmes de quotas et d'octroi de licences et de permis d'importation, ainsi que par un mécanisme de certification de la mise en œuvre du plan de gestion de l'élimination finale (PGEF). Des progrès ont également été obtenus dans l'exécution du PGEF. L'Unité nationale de l'ozone (UNO) a mené diverses campagnes de sensibilisation destinées aux décideurs, aux agents de douane, aux investisseurs, aux travailleurs et au grand public.

Plan d'action

3. Pour la phase à venir, l'UNO appliquera strictement le suivi du système de quotas et de licences, afin de surveiller les importations de SAO. Le pays est déterminé à poursuivre ses efforts jusqu'en 2010 et à se conformer aux prochains objectifs d'élimination des HCFC en entamant la préparation du plan de gestion de l'élimination des HCFC (PGEH).

Serbie: Renouvellement du renforcement des institutions

Sommaire du projet et profil du pays	
Agence d'exécution:	UNIDO
Montants approuvés précédemment pour le renforcement des institutions ($US):	
Phase I: Juil-98	151 500
Phase II: Déc-04	131 300
Total	282 800
Montant demandé pour le renouvellement (Phase III) ($US):	71 121
Montant recommandé aux fins d'approbation pour la Phase III ($US):	71 121
Coûts d'appui d'agence ($US):	5 334
Coût total de la Phase III du renforcement des institutions pour le Fonds multilatéral ($US):	76 645
Quantité équivalente de CFC éliminés grâce à la Phase III du renforcement des institutions à 12,1 $US/kg (Tonnes PAO):	n/a
Date d'approbation du programme de pays:	1998
Consommation de SAO indiquée dans le programme de pays (1998) (tonnes PAO):	0
Consommation de référence des substances réglementées (tonnes PAO):	
(a) Annexe A Groupe I (CFC) (Moyenne 1995-1997)	849,2
(b) Annexe A Groupe II (Halons) (Moyenne 1995-1997)	3,8
(c) Annexe B Groupe II (Tétrachlorure de carbone) (Moyenne 1998-2000)	18,8
(d) Annexe B Groupe III (Méthyle chloroforme) (Moyenne 1998-2000)	0
(e) Annexe E (Bromure de méthyle) (Moyenne 1995-1998)	8,3
Consommation de SAO la plus récente (2008) (tonnes PAO) visée par l'Article 7:	
(a) Annexe A Groupe I (CFC)	76,7
(b) Annexe A Groupe II (Halons)	1,8
(c) Annexe B Groupe II (Tétrachlorure de carbone)	2,1
(d) Annexe B Groupe III (Méthyle chloroforme)	0
(e) Annexe E (Bromure de méthyle)	0
(f) Annexe C Groupe I (HCFC)	7,4
Total	88
Année des données de mise en œuvre communiquées dans le programme de pays :	2008
Montant approuvé pour les projets ($US):	7 488 430
Montant décaissé (jusqu'en septembre 2009) ($US):	5 152 349
SAO à éliminer (tonnes PAO):	848
SAO éliminées (jusqu'en septembre 2009) (tonnes PAO):	773,4

4. Sommaire des activités et des fonds approuvés par le Comité exécutif:

Sommaire des activités		Fonds approuvés ($US)
(a)	Projets d'investissement :	5 947 831
(b)	Renforcement des institutions:	282 800
(c)	Préparation de projets, assistance technique, formation et autres projets ne portant pas sur des investissements :	1 257 799
	Total:	7 488 430

Rapport d'avancement

5. Deux phases de soutien au RI ont été approuvées pour la Serbie. L'UNO a assuré la supervision et la coordination de la reconversion et du programme d'élimination à travers le pays, dans tous les secteurs couverts par le Protocole de Montréal. Pour les deux phases finales, elle a consacré des efforts particuliers à la surveillance des importations et à la consommation des substances appauvrissant la couche d'ozone (SAO) par la stricte application de systèmes de quotas et d'octroi de licences. L'UNO a également mené diverses campagnes de sensibilisation destinées aux décideurs, aux agents de douane, aux investisseurs, aux travailleurs et au grand public. La consommation nationale de CFC en 2008 indique que le pays est conforme aux cibles du Protocole de Montréal.

Plan d'action

6. L'UNO est située dans le Département de la protection de l'atmosphère du ministère de l'Environnement et de la Planification spatiale. Les activités décrites dans le projet de RI sont incluses dans les plans nationaux du gouvernement et du ministère, dans le cadre desquels les projets et activités sont alignés sur les objectifs centraux du ministère de l'Environnement et de la Planification spatiale et de son Département de la protection de l'atmosphère. Le pays est déterminé à poursuivre ses efforts jusqu'en 2010 et à se conformer aux prochains objectifs d'élimination des HCFC en entamant la préparation du plan de gestion de l'élimination des HCFC (PGEH).

Jamahiriya arabe libyenne populaire et socialiste: Renouvellement du renforcement des institutions

Sommaire du projet et profil du pays	
Agence d'exécution:	UNIDO
Montants approuvés précédemment pour le renforcement des institutions ($US): Phase I: Dec-00 Total	 157 000 157 000
Montant demandé pour le renouvellement (Phase II) ($US):	73 702
Montant recommandé aux fins d'approbation pour la Phase II ($US):	73 702
Coûts d'appui d'agence ($US):	5 528
Coût total de la Phase II du renforcement des institutions pour le Fonds multilatéral ($US):	79 230
Quantité équivalente de CFC éliminés grâce à la Phase II du renforcement des institutions à 12,1 $US/kg (tonnes PAO):	n/a
Date d'approbation du programme de pays:	2000
Consommation de SAO indiquée dans le programme de pays (2000) (tonnes PAO):	1052,4
Consommation de référence des substances réglementées (Tonnes PAO): (a) Annexe A Groupe I (CFC) (Moyenne 1995-1997) (b) Annexe A Groupe II (Halons) (Moyenne 1995-1997) (c) Annexe B Groupe II (Tétrachlorure de carbone) (Moyenne 1998-2000) (d) Annexe B Groupe III (Méthyle chloroforme) (Moyenne 1998-2000) (e) Annexe E (Bromure de méthyle) (Moyenne 1995-1998)	 716,7 633,1 0 0 94,1

Consommation de SAO la plus récente (2007) (tonnes PAO) visée par l'Article 7:	
(a) Annexe A Groupe I (CFC)	57,5
(b) Annexe A Groupe II (Halons)	291,5
(c) Annexe B Groupe II (Tétrachlorure de carbone)	0
(d) Annexe B Groupe III (Méthyle chloroforme)	0
(e) Annexe E (Bromure de méthyle)	67,6
(f) Annexe C Groupe I (HCFC)	36,5
Total	453,1
Année des données de mise en œuvre communiquées dans le programme de pays :	2008
Montant approuvé pour les projets ($US):	6 511 080
Montant décaissé (jusqu'en septembre 2009) ($US):	4 136 312
SAO à éliminer (tonnes PAO):	1 567,3
SAO éliminées (jusqu'en septembre 2009) (tonnes PAO)	667,4

7. Sommaire des activités et des fonds approuvés par le Comité exécutif:

	Sommaire des activités	**Fonds approuvés ($US)**
a)	Projets d'investissement :	5 668 241
b)	Renforcement des institutions:	157 000
c)	Préparation de projets, assistance technique, formation et autres projets ne portant pas sur des investissements :	685 839
	Total:	6 511 080

Rapport d'avancement

8. Le programme des activités liées au RI fait parte de l'engagement de la Jamahiriya arabe libyenne populaire et socialiste à éliminer la consommation de substances appauvrissant la couche d'ozone (SAO) d'une manière ordonnée et efficace par rapport aux coûts. L'UNO est responsable de l'exécution des politiques nationales aux fins de la protection de la couche d'ozone, conformément au Protocole de Montréal. Elle a pour mandat de répondre officiellement aux questions des individus, des entreprises et des institutions sur la règlementation des SAO. Elle a investi des efforts particuliers dans la surveillance des importations et de la consommation de SAO. L'UNO a mené diverses campagnes de sensibilisation destinées aux décideurs, aux agents de douane, aux investisseurs, aux travailleurs et au grand public. À l'échelle régionale, la Jamahiriya arabe libyenne est un membre actif du réseau régional. Malgré les fluctuations dans la dotation en personnel, l'UNO a poursuivi ses activités et dispose d'un mandat clair de coordonner les mesures nationales d'élimination des SAO. Dans certains cas particuliers et pour obtenir des conseils techniques, l'UNO a eu recours depuis 2006 à des employés et des consultants professionnels pour l'aider dans ses activités.

Plan d'action

9. L'UNO est le noyau de la structure de gestion des SAO. Elle est intégrée dans l'Autorité générale de l'environnement et a un accès direct au Directeur général et au ministre. Pour cette nouvelle phase, le pays prévoit de réaliser la ratification de tous les Amendements d'ici 2010, de réduire la consommation de CFC et d'entreprendre des mesures actives pour le contrôle et l'élimination des HCFC.

Annexe II

POINTS DE VUE EXPRIMÉS PAR LE COMITÉ EXÉCUTIF SUR LES DEMANDES DE RENOUVELLEMENT DE PROJETS DE RENFORCEMENT DES INSTITUTIONS SOUMISES À LA 59e RÉUNION

Qatar

1. Le Comité exécutif a examiné le rapport qui accompagne la demande de renouvellement du projet de renforcement des institutions (RI) présentée pour le Qatar et prend note avec satisfaction de sa conformité aux dispositions du Protocole de Montréal. Le Comité exécutif constate également que, dans le cadre du projet de RI, le Qatar a pris d'importantes mesures pour éliminer sa consommation de substances appauvrissant la couche d'ozone (SAO), et plus précisément qu'il a mis en place des stratégies d'élimination de SAO dans différents secteurs, ainsi que des initiatives continues de réglementation au moyen d'un système de licences et de quotas. Le Comité exécutif appuie fermement les efforts du Qatar pour réduire la consommation de CFC, et encourage le pays à entamer le contrôle de la consommation de HCFC en établissant un plan de gestion de l'élimination des HCFC.

Serbie

2. Le Comité exécutif a examiné le rapport qui accompagne la demande de renouvellement du projet de renforcement des institutions présentée pour la Serbie et prend note avec satisfaction que la Serbie respecte son calendrier d'élimination ainsi que ses obligations de compte rendu au titre des Articles 4 et 7 du Protocole de Montréal. Le Comité exécutif constate également que, dans le cadre du projet de RI, la Serbie a pris d'importantes mesures pour le renforcement des capacités, ainsi que pour éliminer sa consommation de substances appauvrissant la couche d'ozone, et plus précisément qu'elle a mis en place des stratégies d'élimination de SAO dans différents secteurs, ainsi que des initiatives continues de réglementation au moyen d'un système de licences et de quotas. Le Comité exécutif espère donc que la Serbie poursuivra, avec le plus grand des succès, l'exécution de son programme de pays et des activités du plan national de gestion de l'élimination.

Jamahiriya arabe libyenne populaire et socialiste

3. Le Comité exécutif a examiné le rapport qui accompagne la demande de renouvellement du projet de renforcement des institutions présentée pour la Jamahiriya arabe libyenne populaire et socialiste et prend note avec satisfaction que le pays respecte ses obligations de compte rendu envers le Secrétariat de l'Ozone et le Secrétariat du Fonds multilatéral, au titre de l'Article 7, et qu'il a communiqué les données sur l'avancement du programme de pays pour 2008. Le Comité exécutif constate également que, dans le cadre du projet de RI, la Jamahiriya arabe libyenne populaire et socialiste a pris d'importantes mesures pour renforcer le bureau de l'Unité nationale d'ozone (UNO). Le Comité exécutif appuie les efforts déployés par la Jamahiriya arabe libyenne populaire et socialiste pour obtenir la ratification des Amendements de Beijing et de Montréal au Protocole de Montréal et pour réduire la consommation de CFC.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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

UNIDO Work Programme

59th ExCom

UNIDO

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

Introduction

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

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

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

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

The document comprises the following sections:

Section 1

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

Funding is requested as follows:

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

Section 2

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

UNIDO

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

Section 1

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

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

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

UNIDO

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

Section 2

Project concepts

Project Concept

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

Project Summary

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

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

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

Project Concept

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

Project Summary

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

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

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

Project Concept

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

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Project Summary

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

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

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

Project Concept

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

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Project Background

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

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

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

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

Amount of ODSs available in Algeria for destruction

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

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

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

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

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

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

Legislation in place and existing experiences in the sector

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

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

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

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

Collection scheme

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

- Center 1: located in Algiers (North)

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

The centralized center is expected to:

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

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

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

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

Selection of destruction technology

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

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

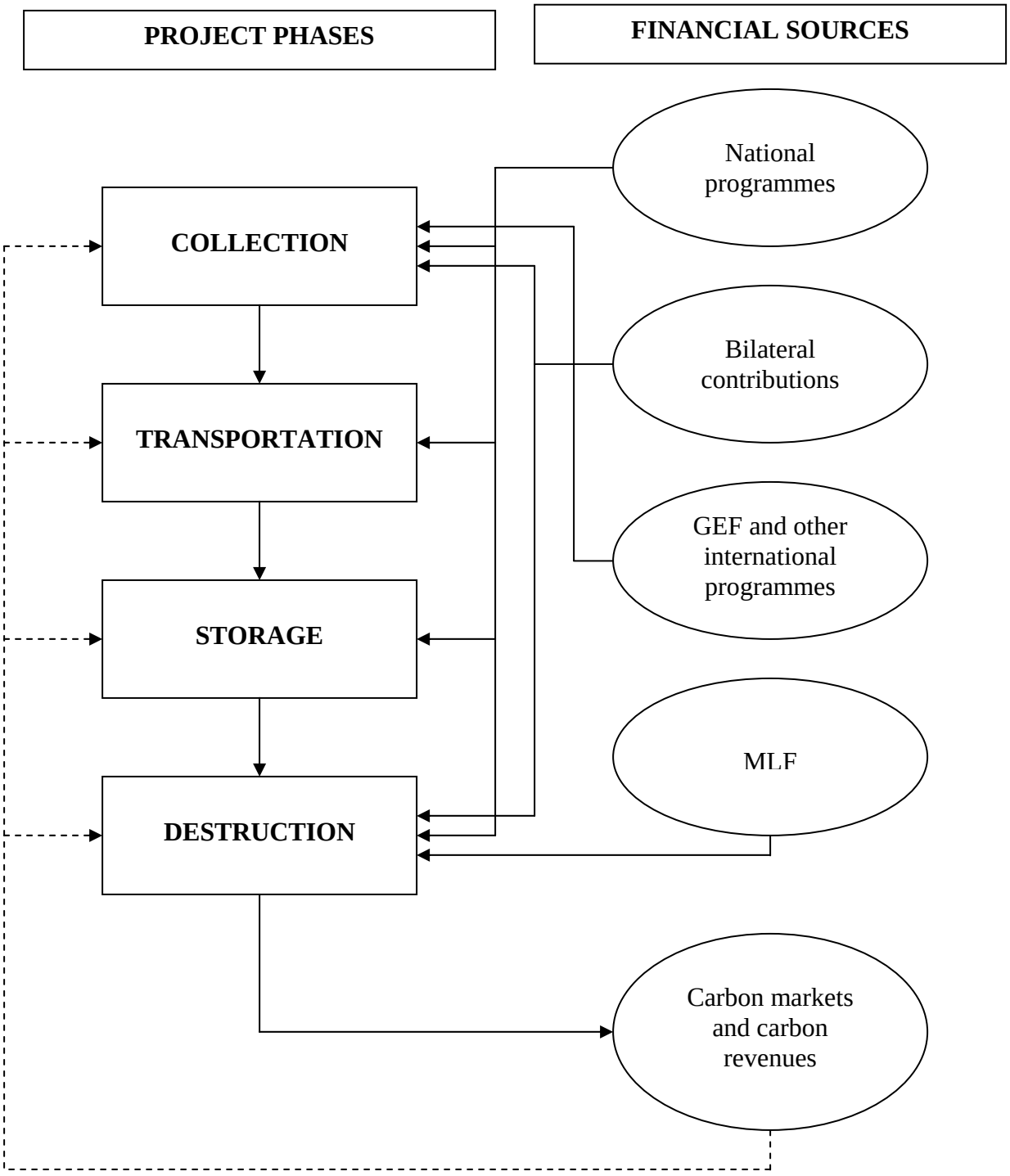
Funds mobilization

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

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

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

Overview of funds mobilization scheme



Project Concept

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

Project Summary

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

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

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

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

I. Background

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

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

Refrigerant servicing sector

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

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

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

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

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

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

the consequent years.

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

Overall CFC quantities for annual destruction

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

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

Project Concept

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

Project Summary

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

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

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

Background

Legal Framework

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

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

to the local Environment Protection Bureaus (EPBs).

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

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

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

Shandong Province collection and destruction scheme

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

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

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

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

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

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

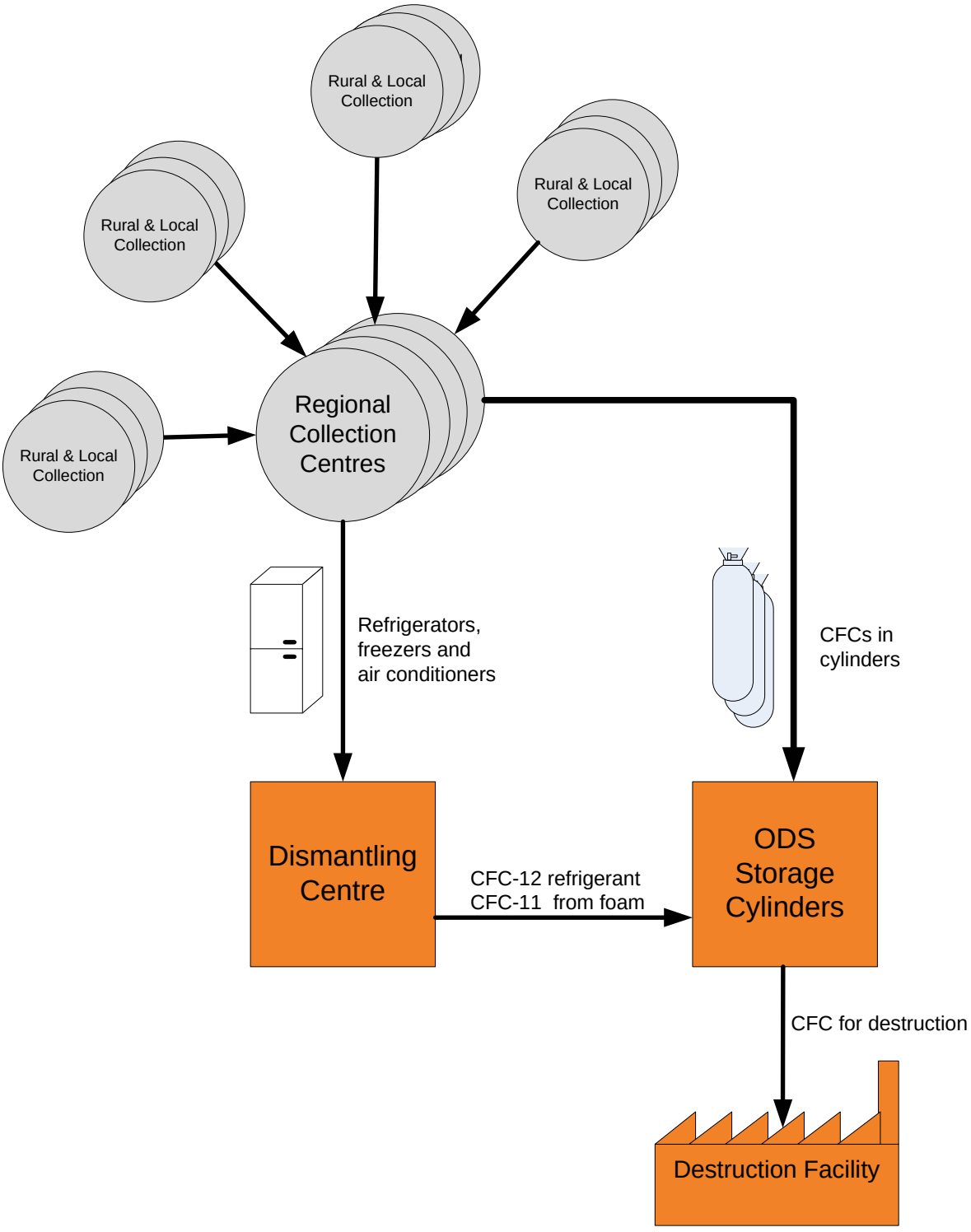
However, the current facility of New World is not able to withdraw CFC-11 from polyurethane insulation foam of the refrigerators. Tests have indicated that it is possible to destroy the foam as a whole in the existing kiln, however, the existing capacity is not sufficient to deal with all the wastes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

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

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

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

Overview of collection, transport, storage and destruction scheme:



Project Concept

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

Project Summary

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

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

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

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

I. Background

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

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

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

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

Refrigerant servicing sector

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

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

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

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

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

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

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

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

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

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

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

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

Halons servicing sector

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

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

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

Total – 95.7 MT of ODSs

II. Project scope

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

2. Unwanted ODS inventory

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

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

3. Status of Regulations on ODS Disposal

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

4. Assessment of ODS quantities for destruction in different sectors

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

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

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

6. Training programme

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

7. Project cost analyses

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

Project Concept

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

Project Summary

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

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

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

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

I. Background

1. Refrigerant servicing sector

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

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

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

Source: Iran's National CFC Phase-out Plan

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

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

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

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

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

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

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

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

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

3. Halons servicing sector

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

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

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

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

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

Total – **97.45 MT** of ODSs

II. Project strategy

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

2. Unwanted ODS inventory

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

3. Status of Regulations on ODS Disposal

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

4. Assessment of ODS quantities for destruction in different sectors

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

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

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

6. Training programme

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

7. Project cost analyses

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

Project Concept

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

Project Summary

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

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

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

Background

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

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

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

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

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

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

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

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

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

Project Strategy

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

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

Total – about **545 MT** of ODSs.

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

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

Project Concept

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

Project Summary

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

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

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

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

I. Background

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

Refrigerant servicing sector

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

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

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

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

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

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

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

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

Halons servicing sector

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

Overall CFC quantities for annual destruction

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

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

II. Project scope

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

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

2. Unwanted ODS inventory

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

3. Status of Regulations on ODS Disposal

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

4. Assessment of ODS quantities for destruction in different sectors

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

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

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

6. Training programme

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

7. Project cost analyses

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

Project Concept

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

Project Summary

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

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

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

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

Project Concept

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

Project Summary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

An existing XPS manufacturer will be selected to implement this

project.

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

The project activities/cost will consist of the following:

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

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

Project Concept

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

Project Summary

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

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

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

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

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

consumption (in metric Tonnes) is reported.

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

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

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

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

- PU Foam sector
- Refrigeration manufacturing sector

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

Project Concept

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

Background

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

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

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

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

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

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

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

Project Summary

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

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

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

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

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

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

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

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

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

Project Concept

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

Project Summary

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

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

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

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

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

- PU Foam sector
- Refrigeration manufacturing sector

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

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

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

Project concept

Additional funding for HPMP preparation

Country: Ecuador, Iraq, Pakistan, Philippines and Sudan

Title: Additional funding for HPMP preparation

Project Duration: 12 months

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

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

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

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

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

Implementing Agency: UNIDO

Coordinating Agency: National Ozone Units

Project Summary

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

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

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

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

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

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

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

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

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

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

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

Project Concept

Country: **Global**

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

Project Duration: 12 months

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

Implementing Agency: UNIDO

Project Summary

Reference: the MLF facility for resource mobilization funding

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

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

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

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

Proposal:

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

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

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

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

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

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

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

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

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

Cost breakdown (in US$):

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