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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixtieth Meeting
Montreal, 12-15 April 2010

2010 WORK PROGRAMME OF UNIDO

COMMENTS AND RECOMMENDATION OF THE FUND SECRETARIAT

1. UNIDO is requesting approval from the Executive Committee of US $1,355,000 for its 2010 Work Programme, plus agency support costs of US $102,225. The Work Programme is attached to this document.

2. The activities proposed in UNIDO's Work Programme s are presented in Table 1 below:

Table 1: UNIDO's Work Programme

Country	Activity/Project	Amount Requested (US $)	Amount Recommended (US $)
SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL			
A1. Project preparation for HCFC phase-out management plans (HPMP):			
Somalia	Preparation for HCFC phase-out management plans (HPMP)	85,000	85,000
	Subtotal for A1**:**	85,000	85,000
A2. Technical assistance and preparatory assistance for methyl bromide:			
Kenya	Elimination of controlled uses of methyl bromide (post-harvest sector)	40,000	40,000
Mozambique	Technical assistance for the elimination of controlled uses of methyl bromide (soil fumigation)	40,000	40,000
	Subtotal for A2:	80,000	80,000
A3. Project preparation for HCFC phase-out investment:			
Bahrain	Project preparation for investment activities in the air-conditioning sectors	30,000	30,000
Ecuador	Project preparation for HCFC investment activities for the foam manufacturing sector	60,000	60,000
Guatemala	Project preparation for HCFC investment activities in the foam sector	60,000	60,000
Morocco	Project preparation for HCFC investment activities in the refrigeration and air-conditioning sectors	40,000	40,000
Morocco	Project preparation for HCFC investment activities foam sector	60,000	60,000
Qatar	Project preparation for HCFC investment activities in the XPS foam sector	80,000	80,000
Uruguay	Project preparation for HCFC investment activities in the refrigeration manufacturing sector	50,000	50,000
The Bolivian Republic of Venezuela	Project preparation for HCFC investment activities in the foam sector	100,000	100,000
The Bolivian Republic of Venezuela	Project preparation for HCFC investment activities in the refrigeration and air-conditioning manufacturing sectors	100,000	100,000
	Subtotal for A3:	580,000	580,000
SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION			
B1. Project preparation for HCFC phase-out investment:			
Saudi Arabia	Project preparation for HCFC investment activities for large AC manufacturers in the refrigeration sector (4 companies)	80,000	80,000*
Saudi Arabia	Project preparation for HCFC investment activities in the foam sector (4 companies)	80,000	80,000*
	Subtotal of B1:	160,000	160,000*
B2. Project preparation for HCFC demonstration projects:			
China	Project preparation for a demonstration project for HC blowing agent in the XPS sector	30,000	30,000*
	Subtotal for B2:	30,000	30,000*

B3. Project preparation for ODS disposal demonstration projects:			
Egypt	Project preparation for ODS disposal pilot project	60,000	60,000*
Nigeria	Project preparation for ODS disposal demonstration project	60,000	60,000*
	Subtotal for B3**:**	120,000	120,000*
B4. Technical assistance:			
Global	Resource mobilization funding	300,000	*
	Subtotal for B4:	300,000	*
Subtotal for sections A and B:		1,355,000	1,055,000
Agency support costs (7.5 per cent for project preparation and institutional strengthening, and for other activities over US $250,000, and 9 per cent for other activities under US $250,000):		102,225	79,725
Total:		1,457,225	1,134,725

*Project for individual consideration or pending

SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL

A1. Project preparation for HCFC phase-out management plans (HPMP)

Somalia: Preparation for HCFC phase-out management plan: US $85,000

Project description

3. UNIDO submitted a request for the preparation of the HCFC phase-out management plan (HPMP) for Somalia. Somalia reported HCFC consumption for 2007 of 1.9 ODP tones in Article 7.

Secretariat's comments and recommendation

4. The Secretariat notes that the request for Somalia is in line with decision 56/16, where countries with only HCFC-22 consumption will receive funds for HPMP preparation of US $85,000 for stage 1 of their HPMP.

5. The Fund Secretariat recommends blanket approval of the request for project preparation for HPMP plan for Somalia at the level of funding shown in Table 1.

A2. Technical assistance and preparatory assistance for Methyl Bromide

Kenya: Elimination of controlled uses of methyl bromide (post-harvest sector): US $40,000

Project description

6. UNIDO has requested funding for the preparation of a methyl bromide (MB) project for Kenya at the level of US $40,000 plus support costs. The project will address the complete phase-out of the remaining use of MB in the country before 2015.

Secretariat's comments

7. At the 39th meeting, a project entitled technology transfer leading to MB phase-out in soil fumigation in all other horticulture applications was approved for the Government of Kenya for the joint implementation of Germany and UNDP. At the 53rd Meeting, the UNDP component of this project was transferred to UNIDO as well as the remaining funds for the associated last tranche of the project. During this transfer, the agreement between the Executive Committee and Kenya was revised, with the caveat that the project will cover all the remaining uses of MB except for 14 ODP tonnes used for stored grain and structures. This request is being submitted by UNIDO for assistance to phase out this remaining consumption of MB.

8. Kenya's 2008 consumption of MB as submitted under Article 7 is 10.2 ODP tonnes, which has been steadily decreasing from 2005. In discussions with UNIDO, the Secretariat inquired whether this would be the final request for the complete phase-out of MB in the country, and whether the 2008 consumption could be used as the basis for reduction rather than the 14 ODP tonnes quoted in the agreement. UNIDO confirmed with the Secretariat that these funds would constitute the final request for preparing MB projects in Kenya, and that the resulting investment project will constitute the last project which will enable Kenya's phase out before 2015. UNIDO also informed the Secretariat that they will work very closely with the country to see that the amount to be phased out would be as close as possible to the 2008 consumption, however indicated that due to uncertainties in the data reporting, they would prefer to ensure that this project covers the 14 ODP tonnes specified in the agreement.

Secretariat's recommendation

9. The Secretariat would like to recommend blanket approval for the request for project preparation for a methyl bromide project in Kenya, at the level of funding indicated in Table 1 above.

Mozambique: Technical assistance for the elimination of controlled uses of methyl bromide (soil fumigation): US $40,000

Project Description

10. On behalf of the Government of Mozambique, UNIDO is submitting a request for a technical assistance project for MB. Mozambique has a MB baseline consumption of 3.4 ODP tonnes. It still has not completely phased out its MB use and its 2008 consumption is 0.4 ODP tonnes.

11. The project aims to prevent any increase in consumption of MB and eventually phase-out its use by providing information on the availability of viable alternatives to existing growers that are still using this substance. This technical assistance will also aim to enforce the national MB legislation in order to ensure and sustain MB phase-out, as well as avoid it being diverted to other applications in agriculture.

Secretariat's comments

12. The Secretariat notes that Mozambique is one of the countries in Africa that has received assistance for MB activities under the regional project providing technical assistance for small MB consuming countries, implemented by UNDP. According to UNIDO, the activities under the regional project were not sufficient to provide the country with the necessary tools to achieve phase-out. Currently, the country's consumption of 0.4 ODP tonnes is well below the 20 per cent reduction in MB consumption required under the Montreal Protocol.

13. UNIDO informed the Secretariat that the consumption of MB in Mozambique is in flower and tobacco growing and other horticulture applications. While there are already alternatives to flower and tobacco growing, the Government wishes to provide technical assistance and information to growers through this requested technical assistance. The proposed activities include the production of technical materials and holding three workshops. This technical assistance will also aim to revise national legislation for stricter regulation of MB use.

14. Other than their participation in the regional MB project in Africa, Mozambique has not received any other funding for MB activities. In submitting this request, the Government of Mozambique agrees that this will be the final funding for MB phase-out for the country, and that it will not seek any future assistance for the same substance.

Secretariat's recommendations

15. The Fund Secretariat recommends blanket approval for this project at the level of funding indicated in Table 1 above as the final funding for MB phase-out in Mozambique.

A3. Project Preparation for HCFC investment projects as part of the HPMP:

Country	Activity/project	Amount requested (US $)
Bahrain	Project preparation for investment activities in the air-conditioning sectors	30,000
Ecuador	Project preparation for investment activities for the foam manufacturing sector	60,000
Guatemala	Project preparation for investment activities in the foam sector	60,000
Morocco	Project preparation for investment activities in the refrigeration and air-conditioning sectors	40,000
Morocco	Project preparation for investment activities foam sector	60,000
Qatar	Project preparation for investment activities in the XPS foam sector	80,000
Uruguay	Project preparation for investment activities in the refrigeration manufacturing sector	50,000
The Bolivian Republic of Venezuela	Project preparation for investment activities in the foam sector	100,000
The Bolivian Republic of Venezuela	Project preparation for investment activities in the refrigeration and air-conditioning manufacturing sectors	100,000

Project description

16. UNIDO requested additional funds for the preparation of investment activities for the seven countries listed above that have already had approved HPMP preparation funding. In its submission, UNIDO provided basic information about the country's HCFC consumption and sectors where HCFCs are used, and how these sector plans will link to a comprehensive HPMP in particular for countries where implementation is being shared by more than one agency. The information supporting each of the requests is presented in UNIDO's work programme attached to this document.

Secretariat's comments

17. The Secretariat reviewed UNIDO's submission in detail and sought clarification where necessary. In its review, the Secretariat found that the information submitted by UNIDO for each of the countries listed above and the funding requested is consistent with that required in decision 56/16. It also notes in particular that UNIDO has consulted with other agencies for those countries where they are collaborating in the HPMP preparation process, and that there is a clear understanding on the division of responsibilities for each agency.

Secretariat's recommendation

18. The Secretariat recommends blanket approval for the requests for the preparation of the investment activities of the HPMP in Bahrain, Ecuador, Guatemala, Morocco, Qatar, Uruguay, and Venezuela at the level of funding indicated in Table 1 of this document.

SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION

B1. Project Preparation for HCFC investment project as part of the HPMP:

Saudi Arabia: Project preparation for HCFC investment activities for large AC manufacturers in the refrigeration sector (4 companies) US $80,000

Saudi Arabia: Project preparation for HCFC investment activities in the foam sector (4 companies) US $80,000

Project description

19. UNIDO requested additional funds for the preparation of investment activities for Saudi Arabia covering the foam and the refrigeration sectors. Saudi Arabia has already approved HPMP preparation funding. In its submission, UNIDO provided basic information about the country's HCFC consumption and sectors where HCFCs are used, and how these sector plans will link to a comprehensive HPMP. The information supporting each of the requests is presented in UNIDO's work programme attached to this document.

Secretariat's comments

20. The Secretariat reviewed UNIDO's submission in detail and sought clarification where necessary. In its review, the Secretariat found that the information submitted by UNIDO for Saudi Arabia and the funding requested is consistent with that required in decision 56/16. It also notes in particular that UNIDO has consulted with UNEP as it is collaborating in the HPMP preparation process and that there is a clear understanding on the division of responsibilities for each agency.

21. The Secretariat also notes that Saudi Arabia has not yet submitted its country programme data for 2008 which was due on 1 May 2009. Decision 52/5(f) notes that "country programme implementation data had to be submitted in advance of the last meeting of the year and subsequent meetings as a precondition for the approval and release of funding for projects". In view of the lack of country programme (CP) data from Saudi Arabia, these requests for additional project preparation for the investment activities in the foam and refrigeration sectors are put forward for individual consideration by the Executive Committee.

Secretariat's recommendation

22. The Executive Committee may wish to consider the requests for project preparation for HCFC investment activities for large AC manufacturers in the refrigeration and foam sectors in view of decision 52/5(f) and approve the request for additional project preparation for investment activities for Saudi Arabia subject to the receipt of its country programme 2008 by the Multilateral Fund as soon as possible and not later than 1 May 2010.

B2. Project preparation for HCFC demonstration projects

China: Project preparation for a demonstration project for HC blowing agent in the XPS sector US $30,000

Project description

23. UNIDO submitted a request for the preparation of a demonstration project for XPS foam in China to test hydrocarbon technology as an alternative foam blowing agent to HCFC-22. A description of the preparation request is presented in UNIDO's work programme attached to this document. The demonstration project will be done at Shanghai Xinzhao, an XPS foam manufacturer established in

April 2003 with two production lines. Its total annual production capacity is about 80,000 m^3. The company currently uses only HCFC-22 as blowing agent with consumption of 265 mt (14.5 ODP tonnes) in 2008. Their main products are XPS boards.

24. The project preparation funds will be used to develop a demonstration proposal that would involve actual plant conversion, production and field trials of the products (building insulation material) manufactured in China. When implemented, its results will be used to develop replicable models for use in other similar manufacturing enterprises, establish technical performance and economic feasibility of the alternatives demonstrated as well as a methodology for calculating future conversion costs.

Secretariat's comments

25. At the 57th Meeting, the Executive Committee decided to remove all requests for HCFC demonstration projects for the refrigeration, solvent and foam sectors, except for five projects in the latter sector, from the agencies' 2009-2011 business plans, consistent with decision 55/43. Decision 57/6 therefore allowed the submission of only these five projects to subsequent meetings of the Executive Committee for consideration. At the 59th Meeting, due to an increase in requests for demonstration project preparation in the agencies' work programmes for alternative technologies other than the five agreed by the Executive Committee in decision 57/6, the Committee in decision 59/9 agreed "to allow additional HCFC projects that demonstrated alternative or new technology and that could provide the information required by decision 55/43 to be included in the 2010 business plans of the bilateral and implementing agencies".

26. The Secretariat reviewed this request in line with decision 55/43 as well as the requirement of decision 56/16(i). It noted that this request is included in UNIDO's business plan for 2010-2012 that is being discussed at this 60th Meeting. In line with this, the Secretariat requested UNIDO to defer the submission of this request to a future meeting to allow the Committee to discuss the merits of the proposed technologies that will be demonstrated during the consideration of the agencies' business plans. Notwithstanding the Secretariat's request, UNIDO asked for the project preparation to be maintained in its work programme citing the urgency of completing such project and indicating that there are several plant conversions planned in China to meet the 10 per cent reduction schedule. The results of the demonstration project will aid the selection of technology in the foam sector to allow compliance with HCFC phase-out requirements. UNIDO indicated that in view of this urgent need, the full proposal for this request if approved at this meeting will be submitted to the 61st with a target project implementation date of 18 months.

27. The Secretariat also sought clarification from UNIDO on the demonstration value of this project considering that HC technology is already commercially available and being used in Japan. UNIDO explained that this technology has not been used in any Article 5 country, and that technical cooperation with Japan has been initiated to introduce this technology in China. It also mentioned that the one important aspect that needs to be demonstrated in the use of this alternative is how to deal with safety issues associated with the flammable nature of the blowing agent, which has a direct impact on both the manufacturing process and the product insulation properties. Intellectual property right issues will be clarified during project preparation.

28. The Secretariat notes that the submission provided basic information on the enterprise, information on the HCFC use at the enterprises, as well as their contribution to the total HCFC use in the country. It notes however, that UNIDO did not specify the amount of ODS that will be reduced as a result of this demonstration project, as it felt that actual phase-out will very much depend on how well the new technology can be adopted to Chinese circumstances and how the market will accept the products using HC.

Secretariat's recommendation

29. In light of the comments of the Secretariat above, the Executive Committee may wish to consider the request for project preparation for a demonstration project using HC as alternative to HCFC-22 in the manufacture of XPS foam at Shanghai Xinzhao at the level of funding indicated in Table 1 above.

B3. Project preparation for pilot ODS disposal projects

The Arab Republic of Egypt: Project preparation for pilot ODS disposal project: US $60,000
Nigeria: Project preparation for pilot ODS disposal demonstration project: US $60,000

Background

30. The Executive Committee, at its 58th Meeting, approved a set of interim guidelines for the funding of demonstration projects for the disposal of ODS in accordance with paragraph 2 of decision XX/7 of the Meeting of the Parties. In decision 58/19, the Committee had agreed "that the Multilateral Fund will fund a limited number of demonstration projects under specific conditions" that were set out in the same decision. In the case of the requests for project preparation funding, submissions are expected to include the following information:

(a) An indication of the categories of activities for the disposal of ODS (collection, transport, storage, destruction), which will be included in the project proposal;

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

(c) An estimate of the amount of each ODS that is meant to be handled within the project;

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

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

(f) For activities that focus at least partially on CTC or halon, an explanation of how this project might have an important demonstration value;

31. A number of project preparation requests were considered for funding by the Executive Committee at the 59th Meeting following the above guidelines. At the same meeting, the Committee, in decision 59/10, decided to request UNIDO to submit two additional project preparation requests, one for Africa and one for West Asia, in line with decision 58/19, in its 2010 business plan.

32. UNIDO submitted the requests for Egypt and Nigeria in line with decision 59/10. These requests were reviewed based on the minimum information requirements set out in decision 58/19(a)(iv).

The Arab Republic of Egypt: project preparation for an ODS disposal project (US $60,000)

Project description

33. The proposed pilot ODS disposal project for the Government of Egypt will consider an approach for the destruction of 82 ODP tonnes of unwanted ODS in the country. This consists mostly of CFC-12 collected from an existing appliance collection scheme in the country.

34. In its request for project preparation, UNIDO indicates that this will provide the country with comprehensive experience on best technologies, policies and strategies for transportation and destruction of ODS in the country. It will also explore co-financing possibilities through carbon finance. The demonstration project will be dealing with the recovery of CFCs from end-of-life refrigerators and air conditioners to be collected in Egypt by using a de-manufacturing facility, which will be partially provided by the project budget. The recovered CFCs will be collected, transported and destroyed in cement kilns in the country. Collection of end-of-life electrical appliances with CFCs will be done at some established places within the country.

35. The proposal also indicates that there is a Halon Banking Center available in the country which has been involved in recovering and recycling of halons. From these, around 10 ODP tonnes of halons could be destroyed on an annual basis.

36. Detailed information for the request is presented in Annex I of UNIDO's work programme attached to this document.

Secretariat's comments

37. The Secretariat reviewed this project in the light of the information required in decision 58/19. UNIDO's submission provided details according to each of the elements required in this decision. The Secretariat sought clarification on the current collection scheme described in the proposal, noting in particular that collection is not an eligible cost for the full project. UNIDO indicated that the larger collection will be done by developing a mechanism for a Producer/Distributor Responsibility Program-including a system of incentives for local users of refrigerators and chillers/ACs, which will facilitate the additional collection of electrical appliances in Egypt. UNIDO is also planning to introduce a recovery fee for each electrical appliance, which will be transferred to an assigned recycling/de-manufacturing company in Egypt, thereby covering the possible costs associated with collection of unwanted ODS. Other elements that may add to the efficiency of the collection scheme, as it relates to the proposed pilot disposal project, will be examined during the preparation exercise. The Secretariat also noted that the proposal lists clear regulatory and legislative measures that are in place to support the collection of ODS in banks in Egypt. In view of these responses and discussions, UNIDO submitted a revised proposal that took into account the comments and views of the Secretariat vis-à-vis decision 58/19. The revised proposal is included in UNIDO's Work Programme attached to this document for the Committee's perusal. The Secretariat further notes that the amount for project preparation being requested is reasonable and consistent with earlier approvals for preparation funds for a project of this type.

Secretariat's recommendation

38. The Executive Committee may wish to consider the request for project preparation of a pilot ODS disposal project in Egypt, in the light of the information presented above, and approving it in line with decisions 58/19 and 59/10.

Nigeria: project preparation for an ODS disposal demonstration project (US $60,000)

Project description

39. On behalf of the Government of Nigeria, UNIDO submitted a request for project preparation for a pilot demonstration project for disposal of unwanted ODS in the country at the level of US $60,000.

40. According to the supporting documents submitted, the proposed project preparation exercise will develop a project that includes activities related to ODS collection, transportation, storage and delivery to the destruction facility. The submission of UNIDO also includes a table providing details about the waste ODS available especially from oil facilities, which are the main target source for unwanted ODS as a collection scheme is already in place in these facilities.

41. The proposal does not specify a technology that will be demonstrated but will examine cost-effective options available to the country. The project will cover transportation, storage and destruction of the amount of ODS identified, including a review of the current regulations concerning waste ODS, and will provide training on the handling of these substances. It will also examine the climate benefit of the destruction activity and explore carbon financing market sas a source of co-funding. A description of the request is included in UNIDO's work programme attached to this document.

Secretariat's comments

42. The Secretariat reviewed this project in the light of the information required in decision 58/19. UNIDO's initial submission lacked data and information as required by the decision and the Secretariat sought clarification from UNIDO on how collection activities were considered in the project preparation request. UNIDO explained that the collection efforts in Nigeria are at an early stage. However, the Government has already identified and documented significant quantities of ODS for disposal, developed halon and CFC banking procedures and continues their implementation on a national scale. Elements that may add to the efficiency of the collection scheme, as it relates to the proposed pilot disposal project, will be examined during the preparation exercise.

43. UNIDO advised that the project preparation exercise will allow Nigeria to look at the necessary elements related to technology, emission control, verification of the specific amounts of ODS destroyed, etc. In view of these discussions, UNIDO submitted a revised proposal that provided additional information based on comments and views of the Secretariat vis-à-vis decision 58/19. The Secretariat further notes that the amount for project preparation being requested is reasonable and consistent with earlier approvals for preparation funds for a project of this type.

Secretariat's recommendation

44. The Executive Committee may wish to consider the request for project preparation of a pilot ODS disposal project in Nigeria in the light of the information presented above, and approving it in line with decisions 58/19 and 59/10.

B3. Technical assistance

Global: Resource mobilization for HCFC phase-out and climate co-benefits: US $300,000

Project description

45. UNIDO submitted a request to the 57th, 58th and 59th Meetings for a technical assistance project for mobilizing resources to maximize climate benefits of HCFC phase-out, at a funding level of US $300,000. UNIDO is submitting a revised proposal to this meeting. It includes a concept note describing the objectives, activities, as well as expected results of this project.

46. According to the proposal, the project will develop concepts and methodologies for additional climate benefits of HCFC phase-out projects and ODS destruction activities. The two concepts to be developed are described below:

(a) Replacement scheme methodology: This will explore a replacement programme for old domestic and industrial appliances relying on ODSs by developing a scheme where ODS appliances past a certain cut-off age could be substituted with newer, energy efficient models using non-HFC alternatives. Funding could be leveraged to pay for the replacement portion and the related costs of transportation and collection of unwanted ODS. The destruction of the collected ODS from such old equipment could be covered by the Multilateral Fund based on existing guidelines for destruction projects. The Government will collect the savings made from energy savings over a period of time, and feed this back into the scheme for further co-financing of ODS destruction projects. The methodology would work out the energy efficiency gains from replacement and also the gains from reduction in energy bills.

(b) Development of a programmatic CDM methodology: UNIDO proposes to develop a programmatic Clean Development Mechanism (CDM) methodology in sectors where there is difficulty in creating an impact from these sectors because of its diffused nature (i.e. refrigeration sector, transportation sector and activities in small/medium enterprises). The core characteristic of this proposal is to aggregate benefit/actions resulting from different initiatives (i.e. public sector measures (voluntary or mandatory) or a private sector initiative) where GHG reductions do not necessarily occur at the same time. The programme chosen could generate climate benefits through grants, soft loan schemes, or voluntary/mandatory efficiency standards for equipment or facilities.

47. The anticipated methodologies should enable both UNIDO and Global Environment Facility (GEF) calculate the climate co-benefits in an easy and straightforward manner and agree on the contribution to the special facility. These could be then used as a model for replication with other similar activities and projects. UNIDO proposes to apply these methodologies to two of its projects, one HCFCs phase-out project and one ODS management and destruction project.

48. The table below provides a breakdown of the US $300,000 as requested by UNIDO:

International Consultants	US $180,000
National Consultants	US $50,000
Travel	US $30,000
Registration fees and other administrative costs for the registration for new methodologies	US $40,000
Total	**US $300,000**

Secretariat's comments

49. Decision XIX/6 paragraph 11(b) of the Nineteenth Meeting of the Parties provided guidance to the Executive Committee to give priority to, *inter alia*, "substitutes and alternatives that minimize other impacts on the environment, including on the climate, taking into account global warming potential, energy use and other relevant factors", when looking at HCFC phase-out projects. The Executive Committee at its 54th Meeting agreed on a set of guidelines for the preparation of HPMPs and, at the 55th and 56th Meetings, approved funds for 160 countries for HPMP preparation. The guidelines for HPMP preparation agreed in decision 54/39 included the provision for Article 5 countries to consider financial incentives and opportunities for co-financing in their final HPMPs, which could be relevant for ensuring that HCFC phase-out results in benefits in accordance with paragraph 11(b) of decision XIX/6.

50. The Secretariat notes that the study proposed by UNIDO may result in two methodologies that could assist countries in examining options for co-financing of elements in their HPMP which promote ozone-climate benefits, as well as exploring possibilities of getting carbon credits for ODS destruction. The Secretariat also notes that UNIDO's proposal describes the development of methodologies for getting possible co-financing from the GEF.

51. The Executive Committee at its 57th and 58th Meetings, discussed a facility for additional income from loans and other sources. At the 59th Meeting during the discussion on this same agenda item, the Executive Committee, in decision 59/48, requested the Secretariat to consolidate the material presented on the Special Funding Facility, with any additional contributions submitted by Members by the end of 2009, into a single agenda item addressing both the Facility as well as any issues related to decision XIX/6 paragraph 11(b) of the Nineteenth Meeting of the Parties for consideration at its 60th Meeting. This revised paper will also be discussed at the 60th Meeting.

Secretariat's recommendation

52. The Executive Committee may wish to consider the request for technical assistance for mobilizing resources to maximize climate benefits of HCFC phase-out, in light of the information presented above, and in the discussion on Agenda item 11, Incentives associated with Multilateral Fund climate impact indicator and a Special Funding Facility.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

60th Executive Committee of the
Multilateral Fund for the Implementation
of the Montreal Protocol

UNIDO Work Programme

60th ExCom

UNIDO

Work Programme – 60th ExCom
(15 February 2010)

Introduction

The UNIDO Work Programme for the consideration of the 60th ExCom of the Multilateral Fund has been prepared following the government requests as well as based on ongoing and planned activities. The Work Programme will support the implementation of UNIDO's three year Rolling Business Plan 2010-2012.

Focus has been put on the additional investment activities to phase-out HCFCs in Article 5 countries, with a view to the forthcoming countries compliance needs in 2013 and 2015.

Preparatory assistance to phase-out MeBr in post-harvest fumigation is requested for Kenya and a technical assistance project is required in Mozambique for the total phase-out of controlled MeBr uses in soil fumigation.

The work programme also included preparation of ODS disposal demonstration projects, following the criteria set by ExCom Decision 58/19, for Egypt and Nigeria.

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 HCFCs, ODS disposal and methyl bromide.

Funding is requested as follows:
- Preparatory assistance and technical assistance for MeBr phase-out US% 86,600 (including A.S.C.)
- HCFCs investment activities preparation: US% 827,750 (including 7.5% A.S.C.)
- HPMP preparatory activities: US$ 91,375 (including A.S.C.)
- Project preparation for ODS disposal demonstration projects US% 129,000 (including 7.5% IA support cost)
- Global Project on resource mobilization: US$ 322,500 incl. 7.5 % ASC
- **Total: US$ 1,457,225 (including A.S.C.)**

Section 2
Section 2 provides the corresponding project concepts indicating some details and funding requirements.

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
Technical assistance and preparatory assistance for MeBr									
Kenya	PRP	MeBr	Elimination of controlled uses of MeBr (post-harvest sector)	40,000	3,000	43,000	7.5	12	
Mozambique	TAS	MeBr	Technical assistance for the elimination of controlled uses of Methyl Bromide (soil fumigation)	40,000	3,600	43,600	9	12	
			Sub-total	**80,000**	**6,600**	**86,600**			
HPMP Preparation									
Somalia	PRP	HCFC	Preparation of HPMP	85,000	6,375	91,375	7.5	12	
Project preparation for HCFC phase-out investment and demonstration projects									
Bahrain	PRP	HCFC	Investment project in AC sector	30,000	2,250	32,250	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	12	
Ecuador	PRP	HCFC	Investment projects for the foam manufacturing sector	60,000	4,500	64,500	7.5	12	
Guatemala	PRP	HCFC	Investment projects for the foam sector	60,000	4,500	64,500	7.5	12	
Morocco	PRP	HCFC	Investment projects for the foam sector	60,000	4,500	64,500	7.5	12	
Morocco	PRP	HCFC	Investment projects in refrigeration and AC manufacturing projects	40,000	3,000	43,000	7.5	12	
Qatar	PRP	HCFC	Investment	80,000	6,000	86,000	7.5	12	

			project in XPS foam						
Saudi Arabia	PRP	HCFC	Investment project for large AC manufacturers in high ambient temperatures (4 companies)	80,000	6,000	86,000	7.5	12	
Saudi Arabia	PRP	HCFC	HCFC investment project in foam sector (4 companies)	80,000	6,000	86,000	7.5	12	
Uruguay	PRP	HCFC	Investment projects in refrigeration manufacturing sector	50,000	3,750	53,750	7,5	12	
Venezuela	PRP	HCFC	Investment activities in Foam sector	100,000	7,500	107,500	7.5	12	
Venezuela	PRP	HCFC	Investment activities in Refrigeration and A/C manufacturing	100,000	7,500	107,500	7.5	12	
			HCFC INV-PRP TOTAL	**770,000**	**57,750**	**827,750**			
Project preparation for ODS disposal demonstration projects									
The Republic of Egypt	PRP	CFC11 /12	ODS disposal pilot project	60,000	4,500	64,500	7.5	12	
Nigeria	PRP	CFC11 /12	ODS disposal demonstration project	60,000	4,500	64,500	7.5	12	
			ODS DISPOSAL - TOTAL	**120,000**	**9,000**	**129,000**			
Technical assistance for funds mobilization									
Global	TAS	SEV	Funds mobilization	300,000	22,500	322,500	7.5	12	

UNIDO

Work Programme – 60th ExCom

Section 2

Project concepts

Project Concept

Country: Kenya

Title: Elimination of controlled uses of MeBr (post-harvest sector)

Project Duration: 12 months

Project Budget: 43,000 US$ (including 7.5% Agency Support Cost

Implementing Agency: UNIDO

Coordinating Agency: Ministry of Environment and Natural Resources

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Project Summary

Kenya has requested assistance to UNIDO for the preparation of a project to address the complete phase out of the controlled uses use of Methyl Bromide in the country before 2015.

As per agreed revised conditions for the phase-out of methyl bromide in Kenya, adopted at the 53rd meeting of the Executive Committee of the Multilateral Fund, the country is eligible to get assistance to phase-out up to 14 ODP tonnes for controlled non-soil applications such as stored grain and structures.

Funding will be used to prepare investment activities addressing all the remaining eligible consumption of Methyl Bromide in Kenya. Investment project will be prepared to ensure Kenya to achieve the 2015 phase-out targets.

The project will address the complete phase-out of all remaining controlled uses of Methyl Bromide in the Kenya before 1st Jan 2015.

PROJECT CONCEPT

Country: Mozambique

Title: Technical assistance for the elimination of controlled uses of Methyl Bromide (soil fumigation)

Duration: 12 months

Project Budget: US$ 71,940 (including 9% Agency Support Costs)

Implementing Agency: UNIDO

Coordinating Agency: Ministry for the coordination of the environmental affairs

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Project Summary

UNIDO has received an official request from the Government of Mozambique for the technical assistance in the Methyl Bromide sector.

Background and project objectives

Agriculture in Mozambique is a crucial economical sector and a very large percentage of the population relies on agriculture for its sustenance.

As reported under Article 7 data, Mozambique has not yet phased-out the use of MB and in 2008 the reported consumption was 0.4 ODP. Therefore, it is clear that some agricultural sectors still rely on the use of that fumigant. Furthermore, the case of potential non-compliance for Mozambique is partly associated with migration of growers of intensive horticulture/floriculture from Zimbabwe. Also those productions still rely on MB as mean for soil treatment.

A recent assessment conducted by UNEP in Africa pointed out that many countries which had phased out MB in the past have reverted to the use of MB.1 In particular, the study indicated that consumption of MB, particularly for Mozambique, needs to be addressed at the national level.

Mozambique was originally included in the Regional project AFR/FUM/38/TAS/32 (Technical assistance for methyl bromide reductions and formulation of regional phase out strategies for low volume consuming countries), implemented by UNDP. However, very limited or nil assistance was offered through that project and the activities were not able to provide the country with the necessary tools to achieve the phase-out target.

Therefore, due to an expansion of the flower production mainly on the border with Zimbabwe and increased on the horticulture

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1 UNEP/OzL.Pro/ExCom/59/Inf.4: IDENTIFICATION OF GAPS IN REGIONAL METHYL BROMIDE PROJECTS IN AFRICA (DECISION 57/9(d)

production in general, the national authorities receive pressure to get authorization to import and use methyl bromide. Another sector of concern is the increased availability of Methyl Bromide in the country due to the increase in the MB application for quarantine and pre-shipment treatments as requested by the standard ISP1. The authorities in Mozambique realized that without any further regulatory measure, some of the eligible consumption for QPS might be diverted to the soil fumigation.

As learned from similar situation, the resurgence of the use of MB is a clear example of the lack of measures to ensure sustainability. Indeed, regulatory and policy support should be coupled with technical and commercial/economic assistance. If no assistance is provided to the farmers and government, there is a serious risk for a dramatic increase in the MB consumption in the near future. Because of that and in light of the good results from similar technical assistance activities, the Government of Mozambique requested UNIDO to submit a project proposal to:

- prevent the increase consumption in Mozambique;
- ensure the complete phase-out of the controlled uses of MB
- enforce the national legislation to ensure the phase-out sustainability.

In light of the above, UNIDO is herewith submitting a technical assistance proposal to the 60th the Executive Committee meeting for consideration.

Project activities

As indicated above, the main impact we expect from this project is to ensure a long-lasting sustainability to the MB phase-out. The project will focus on two main areas of activity:

- provide technical assistance to growers;
- identify gaps and lacks in the national legislation and provide the country with assistance in the legislation review

Activity 1: Production of technical materials

Inputs 1.1: National consultant will be hired for the preparation of a technical publication addressing main sectors and issues related to the MB phase-out in the country.
Inputs 1.2: International consultant will be hired for the preparation of the technical publication.
Inputs 1.3: Technical publication will be printed in 600 copies.
Output 1.1: technical publication is launched and distributed to the national stakeholder during the technical seminars (see activity 2).

Activity 2: Organization of 3 technical workshops

Inputs 2.1: National consultant will be hired for the organization of three technical workshops in the Country.
Inputs 2.2: International consultant will attend the workshop and provide the participants with the necessary technical information.

Output 2.1: Thee workshops are organized in the areas in which growers are justifying the use of methyl bromide.

Activity 3: Revision of the national legislation
Inputs 3.1: A national consultant will be hired to assess the best mechanism to regulate the methyl bromide authorization in the country
Inputs 3.2: An international expert will be hired to provide inputs to the measures and regulatory framework.
Inputs 3.3: A workshop is organized with the main stakeholders (e.g. importers, custom offices, other ministries and Phytosanitary services) to discuss on the potential measures to introduce.
Output 3.1: National and international experts will provide a report to the NOU for the legislation update and for additional measured to introduce under the national regulations related to MB.
Output 3.2: Ozone Office will compile such information and prepare a valid legal mechanism to be enforce by the authorities

Outcomes and indicators
Outcome 1: Awareness is raised on the MB phase-out issue and technical information is provided.
Indicator 1: Surveys will be conducted after 3 months from the workshop among the national stakeholders to verify whether the technical information provided have been applied in the crop management.
Outcome 2: Legislation is revised and enforced
Indicator 2: A legal mechanism (law or decree) is produced to regulate the authorization for the MB use and import, including QPS and controlled used (mainly soil fumigation).

Project budget

Inputs	**Unit**	**Unit costs US$**	**Total cost US$**
National Consultant	4 months	2,500	10,000
Legal expert	1 month	2,500	2,500
International Consultants (including mission to the country)	2 months	8,000	16,000
Technical workshop	2	2,500	5,000
Workshop on policy enforcement	1	2,000	2,000
Publication material -reporting	300	15	4,500
Total			**40,000**
Agency support cost (9%)			**3,600**
		Total cost for MLF	**43,600**

Project Concept

Country:	**Bahrain**
Title:	Preparation of investment project for the phase-out of HCFCs in the A/C manufacturing sector
Project Duration:	12 months
Project Budget:	32,250 (including 7.5% Agency Support Costs) for the AC sector
Implementing Agency:	UNIDO
Coordinating Agency:	National Ozone Unit, Public Commission for the Protection of Marine Resources, Environment and Wildlife

Project Summary

Bahrain's reported HCFCs consumption for the year 2008 was 38.8 ODP tonnes. The survey of the HCFC consumption in Bahrain revealed that there is one major manufacturer of air conditioning units while the remaining consumption is in the servicing sector and 2 small manufacturers of commercial refrigerators, which were converted to use HCFC141b through an earlier project implemented by UNDP. In order to allow the compliance with the freeze and the 10% reduction target, Bahrain requested UNIDO to include a preparatory assistance project for the phase out of HCFCs in Awal Gulf Company, which is the only manufacturer or Air Conditioning Equipment in Bahrain producing an estimated amount of 750,000 units of small air conditioning units.

The Government of Bahrain decided to advance the submission of investment activities in the air conditioners manufacturing sector in order to allow Bahrain achieve the 2013 and 2015 reduction targets. It is to be noted that Bahrain has not yet received funds for the preparation of investment projects for the HCFC phase out.

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 (Demo project to be partially financed by Japan)
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: **Ecuador**

Title: Preparation of investment projects for the phase-out of HCFCs in the foam manufacturing sector

Project Duration: 12 months

Project Budget 1: 64,500 (including 7.5% Agency Support Costs) for the foam sector

Implementing Agency: UNIDO

Coordinating Agency: UGA – National Ozone Unit

Project Summary

Ecuador's reported HCFCs consumption for the year 2008 and 2009 was 4.26 ODP tonnes and 4.20 ODP of HCFC-141b respectively in the foam sector. Ecuador is therefore eligible for receiving up to US$ 60,000 for the preparation of investment projects for the phase out of HCFC in the foam manufacturing sector.

Ecuador 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 foam manufacturing sectors under UNIDO's responsibility.

A recent survey confirmed that one company are producing flexible foam plus integral skin (for automotive) meanwhile more than ten are producing rigid foam in the country and more than fifty small and medium.

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

Project Concept

Country:	**Guatemala**
Title:	Preparation of investment projects for the phase-out of HCFCs in the foam manufacturing sector
Project Duration:	12 months
Project Budget:	64,500 (including 7.5% Agency Support Costs) for the foam sector
Implementing Agency:	UNIDO
Coordinating Agency:	MARN – National Ozone Unit

Project Summary

Guatemala's reported HCFCs consumption for the year 2007 was 10.00 ODP tonnes of HCFC-141b in the foam sector. Guatemala is therefore eligible for receiving up to US$ 60,000 for the preparation of investment projects for the phase out of HCFC in the foam manufacturing sector.

Guatemala 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 foam manufacturing sectors under UNIDO's responsibility.

A recent survey confirmed that more than ten companies are producing flexible foam meanwhile two are producing rigid foam in the country.

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

Project Concept

Country: Morocco

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: 43,000 (including 7.5% Agency Support Costs) for the refrigeration and Air-to-Air AC sectors

Project Budget 2: 64,500 (including 7.5% Agency Support Costs) for the foam sector

Implementing Agency: UNIDO

Coordinating Agency: Ministère de l'Industrie, du Commerce et des Nouvelles Technologies - National Ozone Bureau

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Project Summary

Morocco's reported HCFCs consumption for the year 2008 was 50.9 ODP tonnes including consumption of HCFC-22 and HCFC-141b. Morocco 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.

Morocco 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.

Preliminary information coming from the survey on the use of HCFC in the country confirms 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 identifies 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 ensure Morocco to achieve the 2013 and 2015 reduction targets in line with the priorities established in the HPMP.

Project Concept

Country:	**Qatar**
Title:	Preparation of investment project for the phase-out of HCFCs in the XPS foam manufacturing sector
Project Duration:	12 months
Project Budget:	86,000 (including 7.5% Agency Support Costs) for the AC sector
Implementing Agency:	UNIDO
Coordinating Agency:	National Ozone Unit, Ministry of Environment

Project Summary

Qatar's reported HCFCs consumption for the year 2008 was 38.7 ODP tonnes. The survey of the HCFC consumption in Qatar revealed that there are 3 companies manufacturing panels in the XPS foam sector. In order to allow the compliance with the freeze and the 10% reduction target, Qatar requested UNIDO to include a preparatory assistance project for the phase out of HCFCs in the XPS foam sector where the consumption of HCFC22 in that sub-sector is estimated at 181 metric tonnes.

The Government of Qatar decided to advance the submission of investment activities in the XPS foam manufacturing sector in order to allow Qatar achieve the 2013 and 2015 reduction targets. It is to be noted that Qatar has not yet received funds for the preparation of investment projects for the HCFC phase out.

Project Concept

Country:	**Saudi Arabia**
Title:	Preparation of investment project for the phase-out of HCFCs in the foam manufacturing sectors
Project Duration:	12 months
Project Budget 1:	86,000 (including 7.5% Agency Support Costs) for the AC sector
Implementing Agency:	UNIDO
Coordinating Agency:	National Ozone Unit – Presidency of Meteorology and Environment (PME)

Project Summary

Saudi Arabia's reported HCFCs consumption for the year 2008 was 1,175.3 ODP tonnes. In order to allow the compliance with the freeze and the 10% reduction target, Saudi Arabia requested UNIDO to include preparatory assistance projects for the phase out of HCFCs in at least 4 manufacturers in the foam. The estimated total consumption of the companies being considered in the foam sector is around 3,000 metric tonnes of HCFC-141 and 142b while that of the air conditioning sector is 5,000 metric tonnes of HCFC-22.

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 decided to advance the submission of investment activities in the foam manufacturing sector in order to allow Saudi Arabia achieve the 2013 and 2015 reduction targets. It is to be noted that Saudi Arabia has not yet received funds for the preparation of investment projects for the HCFC phase out.

Project Concept

Country:	**Saudi Arabia**
Title:	Preparation of investment project for the phase-out of HCFCs in the A/C manufacturing sector
Project Duration:	12 months
Project Budget:	86,000 (including 7.5% Agency Support Costs) for the AC sector
Implementing Agency:	UNIDO
Coordinating Agency:	National Ozone Unit – Presidency of Meteorology and Environment (PME)

Project Summary

Saudi Arabia is one of the top 10 major consumers of HCFCs in Article 5 countries with a reported consumption of 1,175.30 ODP Tonne in 2008. The Air-Conditioning industry sector is the dominating HCFC consuming sector and this sector will play crucial role in terms of making the country meets its compliance targets in 2013, 2015 and beyond. Saudi Arabia, being one of the countries that raised concerns on the availability of appropriate alternatives in the air-conditioning sector in high ambient temperatures, requested UNIDO to prepare an investment project for large HCFC consumers in the Air Conditioning Industry.

For air conditioning the primary replacement is R-410A but also R-407C is being applied. All these HFC blends are characterized by the fact that they contain HFC-125, which has a relatively low critical temperature of 66 C that may lead to a drop in efficiency and capacity at elevated temperatures. The project proposed will focus both on technology selection as well as on the phase-out of eligible consumption at 4 air conditioners manufacturers in Saudi Arabia:

1. Al Zamil Factory for A/C, established in 1975, manufacturing 1 million units and consuming 2500 MT of HCFC-22
2. Saudi Company for A/C, established in 1978, manufacturing 300,000 units and consuming 400 MT of

HCFC-22

3. LG Shaker Factory, established in 2006, manufacturing 500,000 units and consuming 2000 MT of HCFC-22

4. Saudi Factory for Electrical Appliances, established in 1986, manufacturing 100,000 units and consuming 120 MT of HCFC-22

Expected results related to technology selection:

1. Studying the applicability of substitutes and alternatives that minimise other impacts on the environment, including on the climate, taking into account global warming potential, energy use and other relevant factor
2. Studying the engineering impacts of high ambient temperatures on system performance
3. Studying the precautions that need to be taken in the design of the equipment
4. Studying additional design features

The dissemination of the potential results on the technology selection will be done through a project to be requested by UNEP.

Project Concept

Country: **Uruguay**

Title: Project preparation for investment to eliminate HCFC use in the refrigeration manufacturing sector

Project Duration: 12 months

Project Budget: 53,750 (including 7,5% Agency Support Cost

Implementing Agency: UNIDO

Coordinating Agency: **Direccion Nacional de Medio Ambiente, Ministry of Environment**

Project Summary

UNIDO received an official Government request for preparation of investment project for the elimination of approximately 30 MT of HCFC (equivalent to 0.3 ODP) use in the refrigeration manufacturing sector in Uruguay

Uruguay consumes 380 metrics tonnes of HCFC (Estimated for 2009). It is calculated that through the HPMP, they will reduce 4.8 ODP tonnes. However, this reduction will not be sufficient to reach the freeze target in 2012, and the 10% reduction. Because of that, Uruguay will address three main commercial refrigeration companies to guarantee the compliance by 2015.

Three manufacturing refrigerator chamber companies located in Montevideo would be ready to adopt some alternatives. The companies have been established before July 1995.

Alternative technology to be considered under preparatory activities will be different blended refrigerants adapted to the condition and system of the companies with a strong emphasis to select those with low global warming potential. Analysis of the efficiency and energy consumption will be carried out

Company information:

1) Montevideo- Cordón
Established in 1978

- Start-up of production of commercial refrigeration chambers in 1978

- Number of tailor made chambers produced in 2007: approximately 600 units for the local per unit about 15 kgs average.
- Total consumption of HCFC-22 in 2007: approximately 9 metric tons;
- Proposed alternative: HFC Blend and Hydrocarbons blend including the necessary safety measures.
- Located in Montevideo

Company information:

2) Montevideo-Carrasco

- Established in 1984
- Start-up of production of commercial refrigeration chambers 1984
- Number of tailor made chambers produced in 2007: approximately 300 units for the local average of 13 Kg
- Total consumption of HCFC-22 in 2007: approximately 4 metric tons;
- Proposed alternative: HFC Blend and Hydrocarbons blend including the necessary safety measures.
- Located in Montevideo

Company information:

3) Montevideo-La Blanqueda

Established in 1982

- Start-up of production of commercial refrigeration chambers 1987
- Number of tailor made chambers produced in 2007: approximately 1100 units for the local average of 15 Kg
- Total consumption of HCFC-22 in 2007: approximately 17 metric tons;
- Proposed alternative: HFC Blend and Hydrocarbons blend including the necessary safety measures.
- Located in Montevideo

Project Concept

Country:	**Venezuela**
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$ 107,500 (incl. 7.5% Agency Support Costs) for the refrigeration manufacturing and A/C sectors
Project Budget 2:	US$ 107,500 (incl. 7.5% Agency Support Costs) for the Foam sector
Implementing Agency:	UNIDO
Coordinating Agency:	FONDOIN - National Ozone Unit

Project Summary

Venezuela's 2007 consumption of HCFCs according to Article 7 report amounted to 260.4 ODP tonnes. With this, Venezuela is a country with an annual consumption higher than 100 ODP tonnes.

Venezuela received U$ 173,750 for HPMP preparation. Preliminary results of the survey confirmed that there is high consumption of HCFC 141b and HCFC 142b in the foam and refrigeration manufacturing sectors and HCFC 22 in the refrigeration (air conditioning) manufacturing sector.

Venezuela 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 and air-conditioning 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. 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 and air-conditioning which is in line with the HPMP under development. The alternative refrigerant will be hydrocarbon. Investment projects will be prepared to help Venezuela to achieve the 2013 and 2015 reduction targets in line with the priorities established in the HPMP.

Based on the 2007 Country Programme data the following sector HCFC-consumption (in metric Tonnes) is reported.

	Manufacturing Foam sector	**Manufacturing Refrigeration sector**	**Total**
Annex C Group I			
HCFC-22		33.00	33.00
HCFC-141b	417.46		417.46
HCFC-123		148.54	148.54
HCFCs Total Consumption	**417.46**	**181.54**	**599.00**

Based on the reported consumption and the above facts, Venezuela 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 Venezuela meets the 2013 and 2015 HCFC reduction targets urgent actions are required in the manufacturing sectors.

Project Concept

Country:	Nigeria
Title:	Preparation of ODS disposal demonstration project
Project Duration:	12 months
Project Budget:	US$ 64,500 including 7.5% IA 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 oil industry (see the table below).

Installed amounts of CFCs in the oil industry

Name of Company	Quantity of CFC-12	Remarks
Shell, Lagos	600kg	Recovered and Transported
Shell, East	8tonnes	To be Transported
Shell, West	7 tonnes	To be Transported
Chevron, Lagos	500kg	To be Transported
Chevron, escravos/offshore	8tonnes	To be Transported
Mobil, Lagos	1 tonne	To be Transported
Mobil, Eket/offshore	8tonnes	To be Transported
Total, Lagos	400kg	To be Transported
Total, Portharcourt/offshore	6 tonnes	To be Transported
Agip, Lagos	200kg	To be Transported
Agip, Portharcourt/offshore	5tonnes	To be Transported
NLNG, Lagos	200kg	To be Transported
NLNG, Bonny	200kg	To be Transported
NNPC, Lagos west	3tonnes	To be Transported
NNPC, Portharcourt east	4tonnes	To be Transported
NNPC, Kaduna North	3 tonnes	To be Transported
Addax, Petrolleum	300kg	To be Transported
Other oil servicing companies	5tonnes	To be Transported
Downstream producers	5tonnes	To be Transported
TOTAL	65.5 TONNES	

A pilot project implemented at one of the oil companies (Shell) had identified an installed stock of more than 15 MT of CFC-12

from which 600 kg at Shell, Lagos have been already recovered and stored for the subsequent destruction. Quantities of the installed CFC-12 at other oil companies amounts to 50 tonnes. 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 65 MT of CFC-12 is available for recovery, storage, transportation and destruction.

It is expected to collect additional quantities of CFCs for destruction from the end-of-life refrigerators, freezers, cold chambers, room air-conditioners and MAC as well as non-recyclable CFCs from the refrigeration servicing sector after 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 Government estimates the installed stock of refrigerants in the above sectors at a level of 2,150 MT of CFCs. The description of the Government approach for ODS recovery for recycling/reuse or storage for destruction currently in use is reflected in the Annex 1. The scheme is to be incorporated in the ODS regulations presently being reviewed.

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 above survey the installed stock of halon-1211 is about 300 MT.

Important note: the Government reports that the halon bank presently stores 8.5 MT of recovered halons for destruction.

Project Strategy

The project will deal with the destruction in the following sectors:
1. Oil industry – 65.5 MT of CFC-12
2. End-of-life RAC equipment, MAC and servicing sector – to be determined
3. Halon servicing sector - 450 MT

Total – about 515.5 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 a destruction methods for ODS destruction
e) Training program.
f) Project cost analyses including the climate benefit component.

Unwanted ODS inventory
Surveys will be conducted on unwanted ODS in the specific sectors of application (refrigerants and halons). Destruction of foams can be considered at a later stage after collecting data on landfills. As a result of the surveys the project will determine quantities of unwanted ODS per 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.

Status of Regulations on ODS Disposal
Review of the sector-wise regulations (refrigerants, halons, unwanted ODS, hazardous waste disposal regulations and ODS destruction regulations) will be carried out. Destruction standards will be developed at the time of the ODS destruction.

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 Nigeria. Finally a carbon trading mechanism would be explored 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.

Screened–in technologies and selection of destruction methods for ODS destruction
The selection of destruction equipment will be based on its internal destruction capacity and the required number of tonnes to be destructed.

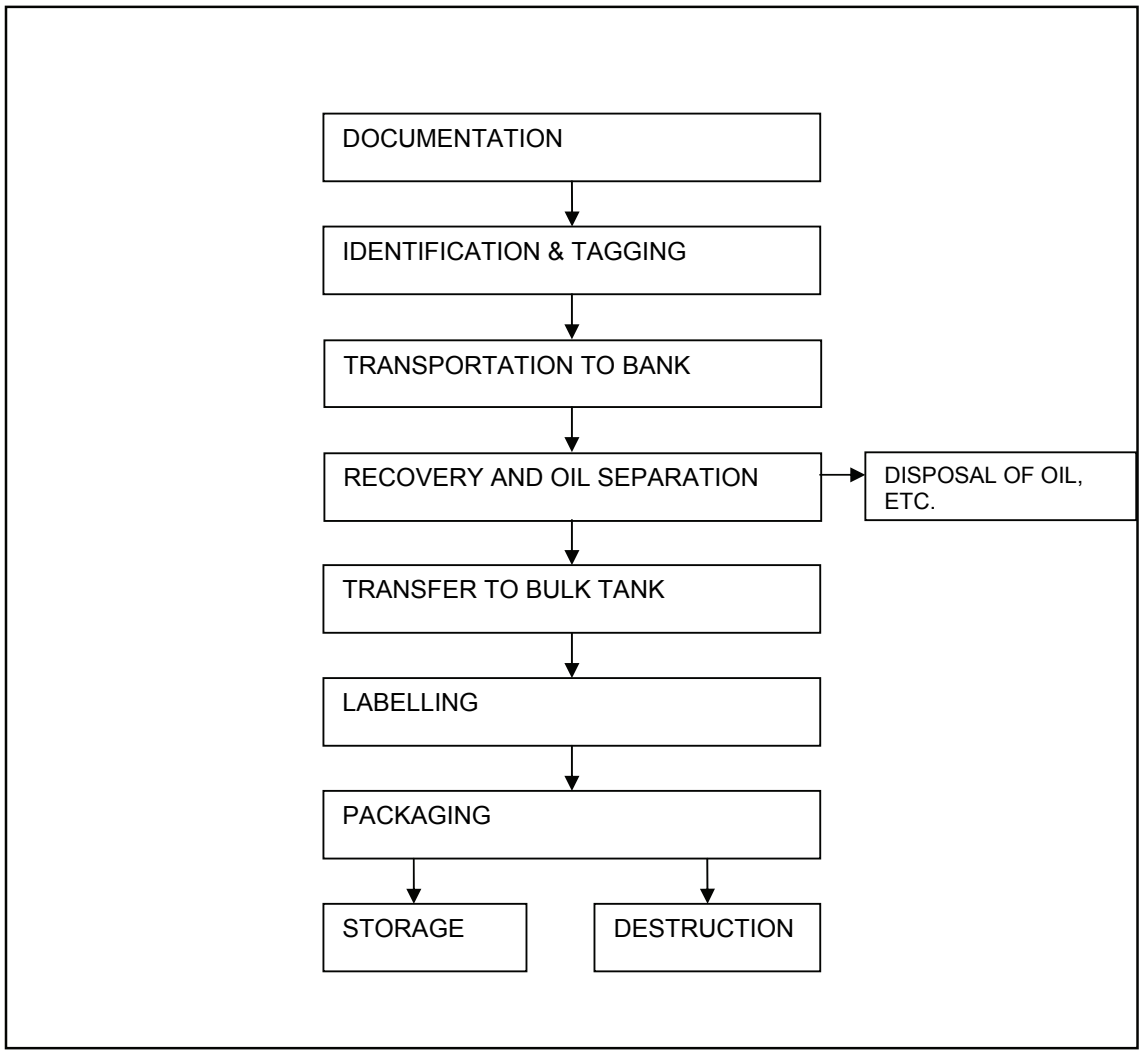
Training programme
A training programme needs to be developed, which brings all the elements of local ODS destruction, new local regulations on ODS destruction developed during the time of this project, and destruction methods.

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 Nigeria. The demonstration project will explore possibility to mobilize national resources as well as sources from international programmes, both multilateral (GEF) 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.

Annex 1

Applied CFC banking procedure



Project Concept

Country:	The Republic of Egypt
Title:	Preparation of an ODS disposal pilot project
Project Duration:	12 months
ODS to be destroyed (estimate)	82.34 tones
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 was requested by the 59th ExCom to submit one additional proposal for ODS destruction for Africa.

UNIDO has received a Government request from Egypt (EEAA) to prepare a demonstration project for the disposal of ODSs. The country has accumulated an enormous quantity of end-of-life fridges and air conditioners, which still contain CFCs.

This paper sets out a proposal for project preparation for an ODS destruction demonstration project in Egypt. The four major sectors of the ODS destruction project, i.e. refrigerant servicing, end-of-life fridges and MAC and halons servicing sector contribute to the 82.34 MT of ODSs, which are be destroyed annually within the frame of the subject disposal project.

I. Background

According to the Decision 58 /19 on criteria and guidelines for the selection of ODS disposal projects bilateral agencies are requested, when submitting activities for funding, which are related to the disposal of ODS and in the case of requests for project preparation funding, to provide:

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

The demonstration project for unwanted ODS destruction in Egypt will be dealing with the recovery of CFCs from end-of-life refrigerators and air conditioners to be collected in Egypt by using a de-manufacturing facility, which will be partially provided by the project budget. The recovered CFCs will be collected, transported and destroyed in Cement Kilns in the country. Collection of end-of-life electrical appliances with CFCs will be done within some established places within the country.

The strategy to be developed in this project will be based on:

a) To use the framework for collection of appliances containing ODSs already established so far in Egypt and to make an assessment of unwanted ODSs quantities in the banks in the country;
b) To clearly formulate new legislation/guidelines in the country and necessary incentives concerning
    - the ban on ODS emissions and ODS-containing appliances disposal in landfills and
    - collection of end-of- life fridges, ACs, Mobile ACs and commercial refrigerators in some established places for their further de-manufacturing by the new project facilities, extraction of CFCs and transportation them to local cement kilns;
    - introduce a Producer/Distributor Responsibility Programme in Egypt;
c) To introduce the most updated technologies for ODS extraction and destruction in the country in a sustainable manner – supported by MLF; and
d) To apply a Voluntary Carbon Trading Scheme, which allows to mobilize further project funds for monetary support of project destruction activities for sub-sequent 10 years supported separately without MLF financing.

The EEAA through its Division of Water and Soil Pollution is responsible for supervising and control of waste management schemes through their different phases including site selection, construction, commissioning, operation and post-operation. Currently, and according to the type, nature, quantity and chemical characteristics of the wastes, several waste disposal/destruction measures/technologies are available within industry sector. Method/measure of waste disposal/destruction is normally recommended by the EEAA to be implemented by the enterprises. Of these techniques, Cement Kiln technology, incineration and landfill are three major disposal measures currently being practiced in Egypt.

b) *An indication whether disposal programmes for chemicals related to other MEAs are presently ongoing in the country or planned for the near future, and whether synergies would be possible*;

There is no specific law for refrigerators and air conditioners with ODS to be collected in some places in Egypt. The Egyptian legislation is very general in this respect (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 (CFCs), 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 its 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:
Article 15) Unclassified batteries;
Article 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;
Article 21) Asbestos waste; and
Article 49) *Waste containing or composing of CFCs.*

CFCs are considered by domestic legislation as hazardous wastes. Disposal and destruction of hazardous chemicals as per above decree are currently being controlled and supervised in the country under the National Waste Management Act. According to the Act all waste producing real and legal entities are considered as responsible for the disposal and destruction of their wastes and would be subject to specified penalties in case of violation from the articles of the law. Moreover, there is a network of scrapping companies in Egypt,

which are involved in collecting old fridges, recovery of CFC-12 and cutting fridges into small metal parts. Collected CFC-12 is gathered at the premises of the scrapping companies for disposal of. No collection of the R-12 is performed. Scrapping companies have to apply their own funds to decompose R-12 in local kilns. No assessment of this servicing sector has been done yet. The scrapping companies have accumulated about 30 MT of CFC-12, which are available for destruction. The isolation panels from fridges are dumped in landfills. This network of scraping companies will be used by the project to set up a system of collection of fridges in Egypt.

The European Directives on the Recovery and Disposal of Waste Household Appliances and Electronic Equipment is being considered by the EEAA as a tool of developing a similar ODS recovery and destruction programme in Egypt. Under the ODS MP project 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).

Under the national POP programme with the WB as an Implementing Agency a POP's destruction sub-programme is being implemented in Egypt associated with the establishment of some POPs destruction facilities at Cement Kilns in Egypt. Such facilities can be also easily shared with the ODS destruction programme for ODS destruction.

c) An estimate of the amount of each ODS that is meant to be handled within the project;

The biggest continuing use of CFCs in Egypt was in the refrigeration service sector, which consumed approximately 704.0 tones including refrigerator manufacturing in 2004.The refrigeration servicing sector 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 is 45 MT, industrial refrigerators – 49.9 MT, chillers – 210.0 MT and MAC – 56.0 MT totaling 713.6 MT 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 recover and recycling facilities and bearing in mind that 5-10% of the whole annual demand in service shop in commercial and domestic refrigerators would be destroyed every year, the total estimate for destruction could be 436.8 x 0.05=**21.84** MT of CFC-12 and this amount is expected to be ready fopr destruction every year.

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 MAC of a passenger car is between 0.9 and 1.5 kg. The NPP survey confirmed that in 2004 there were about 60 tones of CFC-12 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 MACs 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 each year for destruction in the MAC sub-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 2.0 million repairs to CFC-based units were carried out in 2004 (source: the NPP in Egypt). If we assume that the duration of life time of a refrigerator is 15-20 years we could assume that 100,000 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 an increase of the cost of imported or produced refrigerators in Egypt to get funds for destruction of old fridges at the end of their operation. If we take into consideration of 70-300 g CFC R-12 which are available in the cooling circuit and compressor (pre-treatment) and 200-800 g CFC 1 or R-11 in the polyurethane foam insulation (final treatment) we could agree that after the recovery about one refrigerator could provide 230-1100 g of CFCs and average of about 850 g. From 100,000 refrigerators we could recover 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 every year. This figure could be higher in the first year of the project implementation and lower in the consequent years.

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

Under NPP being executed by UNIDO a group of refrigerant servicing workshops equipped with recovery and recycling equipment have been set up in Egypt. Some of them can provide refrigerant reclamation activities. These refrigerant servicing workshops would be capable to provide recovered ODSs ready for destruction. The industry associations should be also analyzed on the availability of ODS stock of unwanted CFCs. The Halons Bank will definitely provide halons quantities for disposal due to strict military standards applied for certification of halons-based fire protection equipment. As a result, periodical checking of extinguishers' performance is a must in the military sector.

Finally the project established facilities for de-manufacturing end-of -life fridge's and commercial refrigerators and which will be the major source of unwanted ODS for destruction.

The project will deal with the ODS destruction in three sectors.
They are:
They are:1. Refrigerant servicing sector (commercial and domestic) – 21.84 MT
2. End-of-life fridges de-manufacturing sector – 42.5 MT
3. MACs - 8.0 MT
Total – 72,34 MT of ODSs (without 10 MT of halons)

e) *For collection activities, information regarding existing or near-future, credible collection efforts and programmes that are in an advanced stage of being set up and to which activities under this project would relate*;

Through the past decade, outstanding progresses have been made in development and operation of waste collection, disposal and management systems in Egypt. However, more efforts will be required to incorporate the ODS waste management into the existing waste management schemes.
Some potential elements of the collection scheme are summarized as follows with some financial data collected:

- Owners of refrigerators should transport the end-of-life (EOL) equipment to a collecting place and pay for a service fee;
- Organized transport for pick up of EOL equipment;
- Establishing non-profit organizations for EOL equipment management, recovery and reclaim;
- Establishing collective points for EOL equipment;
- Technicians receive payment for the ODS to be recovered;

- Levy on the import of ODSs;
- Additional charge on any appliance sold which used for collecting dumped appliances
- Funding to training technicians to get license
- Manufacturer of alternative (e.g. for halon fire extinguisher) offers to collect and destroy the old equipment if changed to the new ODS-free one.

Collection of unwanted ODS seems to be rather a complicated effort in the sense that it requires a collaborative action by all involved stakeholders. Currently the municipalities of the large urban areas are responsible for collection of wastes inside the urban areas. Industry associations could also be involved in the waste collection process as other potential entities capable of handling the waste collection activities.

f) *For activities that focus at least partially on CTC or halon, an explanation how this project might have an important demonstration value*;

CTC is not available for destruction in Egypt. However, there is a Halon Banking Center available in the country and which has been involved in recovering and recycling of halons. The Halons baseline consumption in Egypt is 705 ODP MT of two Halons 1211 and 1301 or 120 ODS tones. 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.

Project Concept

Country: **Global**

Title: Mobilizing additional funds through the

special facility under the MLF to account for the climate co benefits of the HCFCs phase out projects and ODS Destruction Projects.

Project Duration: 24 months

Project Budget: 322,500 (including 7.5% Agency Support Costs)

Implementing Agency: UNIDO

Project Summary

Reference: 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 negotiations on the issue started in Montreal during the coordination meeting on 26-27 January 2009 and discussed at the MOP and ExCom level during the year 2009.
The main objective of the project is to define a suitable scheme for mobilizing sources for the co-financing of ODS-related projects.

The below considerations have been taken into account in developing this proposal:

- 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 (more 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 from additional efforts is not mandated by the MP and therefore associated costs are not covered by MLF.
- Despite none of the ODS is included in the list of the substances regulated under the Kyoto Protocol, some ODS have a remarkable GWP impact. Moreover, some of the most promising alternatives for the replacement of HCFCs are in the basket of the Kyoto substances (i.e. HFCs).
- Methodologies have been already approved for the emission reduction of HFC at the manufacturing level (i.e. HFC in foam).
- 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.
- 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 as well as in the destruction of unwanted ODSs, taking into account the decisions of the MOP and ExCom to adopt alternatives that generate climate and environment co benefits where applicable.
- Strategies for leveraging funds from the GWP emission reduction bodies (both compliance and voluntary markets) could be further explored.

Proposal:

To develop concepts and methodologies for additional climate benefits of HCFC phase-out projects and ODS destruction activities. The concepts are as follows.

1. Replacement Scheme Methodology

To develop a methodology for a replacement scheme for old domestic and industrial appliances relying on ODSs. The early replacement would ensure environmental benefits both to the Ozone recovery and reduction of GWE. The aim would be to develop a scheme where ODS appliances past a certain cut-off age (on the basis of significantly reduced energy efficiency) could be substituted with newer, energy efficient models using non-HFC alternatives. UNIDO can leverage financing from other bodies eg. GEF, CTF or national programs to pay for the replacement portion and the related costs of transportation and collection, while the destruction of the ODS would be covered according the MLF DEMO projects. Gains could be realized through the reduction in energy bills, with the difference collected by the government over a period of time and fed back into the scheme for further co-financing of ODS destruction projects. This would ensure the continuity of the scheme and reduce further reliance on the MLF. The methodology would work out the energy efficiency gains from replacement and also the gains from reduction in energy bills.

One should consider that in most developing countries, equipment manufacturers are not required to improve the energy efficiency of their products if it means additional costs to be borne by them either due to modification of process or material 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.

2. Development of a Programmatic CDM Methodology

UNIDO also has the intention of developing a programmatic CDM methodology that would capture sectors where there is difficulty to create impact because of the diffuse nature of the sites e.g. refrigeration sector, transportation sector and activities in small/medium enterprises.

The core characteristics of programmatic CDM project activities are that they occur as the result of a deliberate program, that is either a public sector measure(voluntary or mandatory), or a private sector initiative, the program results in a multitude of dispersed actions that are induced by the program and would not occur but for the enactment of the program, the GHG reducing actions do not necessarily occur at the same time. The program chosen could generate climate benefits through grants, soft loan schemes, or voluntary/mandatory efficiency standards for equipment or facilities

UNIDO is therefore requesting 300,000 US$ to work out the methodology and concepts.
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.

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

The developed methodologies will be applied in two of UNIDO projects, one HCFCs phase out project and one ODS management and destruction project.

Cost breakdown (in US$):

- International Consultants	180,000
- National Consultants	50,000
- Travel	30,000
- Registration fees and other administrative costs for the registration for new methodologies	40,000
Total	**300,000**