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UNDP BUSINESS PLAN FOR THE YEARS 2009-2011

COMMENTS AND RECOMMENDATIONS FROM THE FUND SECRETARIAT

1. This document presents a summary of UNDP's planned activities for the phase-out of ozone depleting substances (ODS) during the 2009-2011 triennium. It also contains UNDP's business plan performance indicators, general comments, and recommendations for consideration by the Executive Committee. UNDP's 2009-2011 business plan is contained in Annex I.

Planned activities 2009-2011

2. Although the business plan is a rolling three-year business plan, most of the details provided are for 2009. Activities planned for 2010 and 2011, except for those associated with existing multi-year agreements (MYAs), are included on a tentative basis only and may be revised during the course of implementing the final 2009-2011 business plan.

Planned activities for 2009

3. For 2009, the total value of projects planned for submission by UNDP is US \$19.32 million (including support costs) leading to the phase-out of 704 ODP tonnes. The business plan includes:

- (a) Tranches relating to thirty-six ongoing MYAs for sector and substance phase-out valued at a total of US \$6.32 million that, when implemented, will lead to an ODS phase-out of 589 ODP tonnes;
- (b) Four new MYAs with a total value of US \$510,625 (US \$1.02 million in total for the triennium) with an associated ODS phase-out of 14 ODP tonnes (29 ODP tonnes in total for the triennium);
- (c) One individual terminal phase-out management plan audit project (TPMP) with a total value of US \$32,250;
- (d) Project preparation valued at US \$3.14 million;
- (e) Twenty-four non-investment projects with a total value of US \$7.4 million consisting of eight institutional strengthening projects (US \$1.51 million and 94 ODP tonnes), 13 demonstration projects (US \$5.56 million and 7 ODP tonnes) and three technical assistance projects (US \$333,500); and
- (f) Core unit costs of US \$1.91 million.

Planned activities for 2010

4. In 2010, UNDP plans to submit projects with a total value of US \$81.56 million and with an associated phase-out of 1,452 ODP tonnes. This includes US \$75.25 million for activities required for compliance according to the compliance-oriented model for which US \$68.62 million is for HCFC activities. It also includes US \$6.31 million for ODS disposal activities that are not required for compliance.

Planned activities for 2011

5. In 2011, UNDP plans to submit projects totalling US \$72.24 million with an associated phase-out of 724 ODP tonnes. This includes US \$72.24 million required for compliance of which US \$68.49 million is for HCFC activities.

Resource allocation

6. Table 1 presents a summary of the resource allocation in UNDP's 2009-2011 business plan.

Table 1
RESOURCE ALLOCATION (in US \$000)

	2009	2010	2011
Required for compliance			
Approved multi-year agreements	6,322	672	203
Core unit costs of implementing agencies	1,913	1,971	2,030
Institutional strengthening	1,514	3,325	1,514
Audits (TPMP)	32		
TPMP	511	662	
HCFC – Demonstration	5,557		
HCFC - Demonstration preparation	129		
HPMP	269	32,608	32,608
HPMP Preparation	220		
HPMP - Investment projects		35,881	35,881
HPMP - Investment preparation	2,465	130	
Sub-total (required for compliance)	18,932	75,250	72,236
Not required for compliance			
ODS Disposal	323	6,306	
MDI - Strategies	65		
Sub-total (Not required for compliance)	387	6,306	0
Total	19,319	81,556	72,236

7. UNDP is seeking funding amounting to almost US \$19.32 million in 2009. In UNDP's business plan, US \$18.93 million is for activities required for compliance and US \$387,000 is for activities not required for compliance. Those activities that are not required for compliance include disposal of ODS (US \$322,500) and MDI strategy projects (US \$64,500).

8. The level of expected annual funding for UNDP from the Multilateral Fund increases from US \$19.32 million in 2009 to US \$81.56 million in 2010 and decreases to US \$72.24 million in 2011. UNDP has identified activities valued at US \$141.4 million after 2011. Of this, all but US \$14.69 million will be directed towards HCFC activities.

Implementation and compliance assistance

9. During the 2009-2011 triennium, UNDP plans to phase out 2,957 ODP tonnes through ongoing projects and MYAs. In addition, UNDP has indicated that 116 ODP tonnes will be phased out through new projects that will be submitted for approval during the triennium.

General comments

10. Activities not required for compliance are listed in Table 1 according to the value of the requests for 2009, 2010 and 2011.

HCFC activities

Estimates of growth in consumption, ODP, and cost-effectiveness

11. To address increasing rates of growth in consumption of HCFCs and accounting for ODP values of HCFCs in its 2009 business plan, UNDP has assumed a 20 per cent growth rate in consumption compared to 2007 levels, with a 10 per cent drop after 2011. It therefore assumed that 30 per cent of 2007 levels would need to be funded to achieve the 10 per cent reduction in 2015.

12. To assess values for ODP levels for non-low-volume consuming (non-LVC) countries UNDP has employed an average cost-effectiveness of US \$100 per ODP/kg. For LVCs, UNDP employed the estimates presented in the HCFC Cost Paper (UNEP/OzL.Pro/ExCom/55/47, Annex IV) plus support costs. UNDP's estimates assume climate-neutral phase-out efforts and do not include additional costs to achieve the climate benefits.

HCFC foam demonstration projects

13. With respect to timing issues related to HCFC foam demonstration projects, UNDP has indicated that it makes a distinction between the validation proposals (technical assistance) with durations of 7 to 12 months and true demonstration projects, which are expected to have a two-year duration. UNDP has also indicated that these demonstrations should assist in achieving the freeze while other new foam technology may not be ready in time to assist in meeting the freeze and the 10 per cent reduction.

14. The Secretariat has noted that all HCFC demonstration projects should include associated ODP value; however, no ODP values have been provided by UNDP for its HCFC demonstration projects. UNDP responded that there is no ODP associated with the projects in Brazil and Mexico because they address issues of technology-validation at the level of a system house. Nevertheless, it noted further that all follow-up projects that would benefit from the results of these projects and subsequent phases would be submitted as demonstration or investment projects with an associated ODP phase-out. This would include the methyl formate projects for Brazil and Mexico. UNDP indicated further that it is in the process of reclassifying all existing HCFC demonstrations to technical assistance, with the exception of the proposals from China, which will remain demonstrations and for which ODP to be phased out will be added.

15. With respect to the methylal technology proposed for Brazil, UNDP has indicated that part of a technology validation project is to investigate the commercial and technical viability of the technology in an Article 5 (A5) country context – although it has been proven in non-Article 5 countries. However, 80 per cent of Article 5 countries are not in a position to justify the investment of between US \$350,000 and US \$500,000 necessary to use hydrocarbons. Therefore, substances such as methyl formate (ecomate) and methylal, which are more expensive than hydrocarbons are interesting alternatives because their related investments would be lower.

16. UNDP has submitted project preparation requests for two demonstration projects to validate cost-effectiveness and feasibility of hydrocarbons to replace HCFC-141b in rigid and integral skin foam applications in Egypt, and another for the use of HFO-123ze in extruded polystyrene foam boardstock in Turkey. These requests are also addressed in UNDP's work programme (UNEP/OzL.Pro/ExCom/57/18).

HCFC refrigeration demonstration projects

17. The Secretariat asked UNDP to clarify which technologies it is proposing for its refrigeration demonstration projects in China, India and Indonesia and on what basis it believed that such demonstrations for HCFC-22 are warranted at present, rather than at a future date when technologies for low-GWP alternatives might be available. UNDP provided additional justification for the two projects in China. With respect to the demonstration project for conversion of HCFC-22 based residential air source

heat pump units to R-410A at Tsinghua Tongfang Artificial Environment Co. Ltd., the project would, inter alia, develop a replicable project model for HCFC-22 reductions/phase-out. The key impact of the project would be to eliminate 70 metric tonnes of HCFC-22 at the establishment and to further facilitate reduction or elimination of HCFC-22 by the residential air source heat pump unit manufacturers in China. With respect to the demonstration project for the conversion of HCFC-22 reciprocating refrigeration compressors for cold storage applications at Yantai Moon Group Co. Ltd., UNDP has indicated that it will ensure the domestic availability of proven non-HCFC compressors in China. UNDP noted further that additional justification would be provided for the projects in India and Indonesia in the work programme amendment to be submitted to the 58th Meeting of the Executive Committee.

HCFC solvent sector demonstration projects

18. In its 2009 business plan, UNDP has included two project preparation activities for HCFC solvents demonstration projects in China. One of the demonstration projects relates to medical devices, which would result in a project being submitted to the 58th Meeting. The second demonstration project has not yet been decided by the Government of China. UNDP indicated that the results of the first project could be replicated with respect to all similar uses of solvents in China and elsewhere.

Metered-dose inhalers

19. UNDP's 2009 business plan included MDI transitional strategies for Bolivia and Lebanon, which are each valued at US \$32,000. This is despite the fact that the Executive Committee had decided not to accept any MDI investment projects after the 56th Meeting (decision 54/5, paragraph (d)). UNDP has indicated, however, that despite removing several proposals for transition strategies from its business plan, it made exceptions for the transition strategies in Bolivia and Lebanon because both countries had submitted their TPMP/National Plan prior to the Committee's decision to include MDIs in the TPMP.

ODS disposal

20. UNDP has proposed several ODS disposal demonstration projects in its 2009 business plan, further to decision XX/7. A key purpose of these projects is to demonstrate the applicability to Article 5 countries of practices in developed countries with respect to destroying ODS. UNDP also seeks to verify the practicality and cost-effectiveness criteria. In its approach, UNDP indicated that the applicability of early retirement schemes of refrigeration equipment leading to the need to properly manage ODS in banks should be demonstrated to Article 5 countries. The demonstration projects cover all categories of collection, transport, and destruction and none are directed to only one of these aspects.

21. Concerning the criteria used by UNDP to select countries for demonstration projects, it suggested that it had restricted the number of countries in view of the Meeting of the Parties decision to allow a "selected number" of such demonstration projects. Therefore, UNDP focused on countries that have made progress in addressing ODS waste management, leading to the need for its destruction. It also took into account opportunities to identify synergies with other sources of funding (such as UNDP's GEF-programme on energy-efficiency).

22. As a basis for valuing the estimated tonnage for ODS disposal, UNDP has applied an educated guess, taking into account a proportion of the current ODS available for disposal. UNDP did not use the results of ICF study as a basis for its tonnage estimate because it considered the report to be out-of-date and indicated that pre-retirement of equipment should have been included in the levels of unwanted ODS. In the absence of a methodology to establish clear values at this stage, UNDP has assumed a value of US \$10/kg. UNDP has only requested project preparation for its ODS disposal activities in 2009 and indicated that it will include more detailed figures in 2010 based on work that will occur this year.

23. In some cases the Secretariat noted that the demonstration aspect of the ODS disposal activities was not sufficiently clear to distinguish these projects from comprehensive investment programmes.

UNDP responded to the Secretariat by indicating that all the countries involved had initiated specific activities in this direction and justified their classification as demonstration projects as indicated in Table 2. Table 2 also presents information on the rationale for the project and the total costs of the project in the business plans, categories which have been added by the Secretariat.

Table 2

ODS DISPOSAL ACTIVITIES

Country	Objectives of the demonstration	Other information	Total cost (US\$)	Quantities of ODS to be destroyed (ODP tonnes)	Project preparation (US\$) including agency fees
Bolivia	Generate data and experience on the collection of contaminated CFCs in LVCs including costs, logistics, options for disposal and ways to improve strategies in LVC countries for managing ODS banks.	UNDP indicated that it was difficult to measure the volumes of ODS in banks as individual volumes are small and storage is spread out.	376,250	37.6	32,250
Brazil	Applicability of existing refrigerator retirement to generate energy savings, sustainable business model for proper disposal and potential financing partners as well as options for optimizing the costs of storage and transport. Demonstrate successful appliance replacement schemes in A5 countries. This would be a comprehensive programme for a non-LVC.	The project would build upon the considerable progress already achieved in the solutions for the collection and dismantling of the equipment associated with the CFC recovery and recycling project.	752,500	75.3	43,000
China	Not provided.	Estimated stock ranges widely from 25,000 to 500,000 metric tonnes and a significant proportion of the existing CFC-based appliances and equipment would need to be replaced potentially making large quantities of CFCs available for disposal.	1,505,000	150.5	0
Colombia	Analyze aspects of larger scale operations, including options and costs for logistics and final disposal of CFC stockpiles, legislative measures and financial mechanisms to help cover costs.	There is a potential to collect and destroy three million refrigerators. Colombia has a stock of ODS ready to destroy of 19,314 metric tons including CFC 11, CFC 12, Halon 1301, HCFC 22, CFC/HCFC blends.	752,500	75.3	43,000
Cuba	Identify technological solutions for destruction, options for financing, and secure the necessary partnerships for recovered CFCs.	The country has funded an energy efficiency project with a goal of replacing three million refrigerators. 100 tonnes of ODS have been recovered through the Fund's recovery and recycling project.	286,058	28.6	32,250
Egypt	Link to an approved GEF project and provide an assessment of incentives to establish an appliances de-manufacturing and recycling management system to enable the proper collection and final disposal of ODS.	UNDP is implementing a US \$5.4 million GEF-supported programme directed towards removing barriers to achieving energy-efficiency, including refrigerators. The NOU has estimated an ODS stock of 2,000 metric tonnes.	752,500	75.3	43,000
Ghana	Link to a proposed GEF project and seek the retirement of refrigerators for energy efficiency.	The GEF proposal entitled "Promoting of Appliance Energy Efficiency and Transformation of the Refrigerating Appliances Market in Ghana" for US\$ 3.95 million (of which US\$ 1.95 million would come	752,500	75.3	32,250

Country	Objectives of the demonstration	Other information	Total cost (US\$)	Quantities of ODS to be destroyed (ODP tonnes)	Project preparation (US\$) including agency fees
		from the GEF) was submitted by UNDP to the GEF in September 2008.			
India	This is a comprehensive programme for a non-LVC for recovery of refrigerators and industrial/commercial equipment. It includes surveys, CFC management activities, demonstrating technologies (to be determined), identifying synergies with MEAs, sources of funding, proposals for policy and regulatory interventions, and mechanisms to manage risk.	Estimated stock ranges widely from 25,000 to 500,000 metric tonnes.	752,500	75.3	64,500
Uruguay	Generate data and experience on the collection of contaminated CFC in LVCs including costs, logistics, options for disposal and ways to improve strategies in LVC countries for managing ODS banks.	UNDP indicated that it was difficult to measure the volumes of ODS in banks as individual volumes are small and storage is spread out.	376,250	37.6	32,250

Resource mobilization for climate co-benefits

24. UNDP has proposed several steps in its 2009 business plan to address resource mobilization issues, including the following:

- Identification and documentation of potential exemplary projects requiring co-financing of incremental climate benefits in the following areas:
 - An MLF funded project where incremental climate benefits will come at a cost of >\$25 per tonne of CO₂ saved;
 - An A5 project where the HCFC phase-out is not funded under the MLF but could be funded from the proceeds of the incremental climate benefit;
 - An energy efficiency project (e.g., GEF) in which end of life (E-o-L) management of ODS would bring incremental ozone and climate benefits;
 - A stand-alone bank management/ODS destruction project which could be based on an existing methodology;
- On-going review of emerging methodologies for ODS destruction in support of any of the four project types identified above;
- Commissioning of new methodologies, where appropriate, to address specific project types in an environmentally sound fashion;
- Assessing risk and financial liabilities and cost effectiveness of different trading options;
- Marketing business plan and identification of potential buyers; and
- Coordination and reporting to MLF bodies on findings and potential pitfalls.

Performance indicators

25. A summary of UNDP's performance indicators pursuant to decisions 41/93, 47/51 and 49/4(d) is provided below in Table 3.

Table 3

PERFORMANCE INDICATORS

Item	2009 Targets
Number of annual programmes of multi-year agreements approved versus those planned (new plus tranches of ongoing MYAs)	40
Number of individual projects/activities (investment projects, RMPs, halon banks, TAS, institutional strengthening) approved versus those planned	22
Milestone activities completed/ODS levels achieved for approved multi-year annual tranches versus those planned	36
ODS phased-out for individual projects versus those planned per progress reports	633
Project completion (pursuant to decision 28/2 for investment projects) and as defined for non-investment projects versus those planned in progress reports	98
Number of policy/regulatory assistance completed versus that planned	1/1 (100%)
Speed of financial completion versus that required per progress report completion dates	On time
Timely submission of project completion reports versus those agreed	On time
Timely submission of progress reports and responses unless otherwise agreed	On time

26. UNDP's target for the number of individual projects approved versus those planned is 22. However, UNDP's business plan database indicates 25 individual projects to be submitted in 2009 including eight institutional strengthening, three for technical assistance, thirteen demonstration projects and one phase-out plan audit. For consistency with the other agencies, UNDP's target for the number of individual projects approved should be 25.

27. UNDP has set a target of providing policy assistance to one country (Bangladesh) in 2009.

RECOMMENDATIONS

28. The Executive Committee may wish to consider:

- (a) Endorsing the 2009-2011 business plan of UNDP as contained in UNEP/OzL.Pro/ExCom/57/9 while noting that endorsement denotes neither approval of the projects identified therein nor their funding levels, and the endorsement is with any modifications based on consideration of the following activities:
 - (i) HCFC foam demonstration projects;
 - (ii) HCFC refrigeration demonstration projects;
 - (iii) HCFC solvents demonstration projects;
 - (iv) Metered-dose inhaler transition strategies;
 - (v) ODS disposal activities; and

- (vi) Resource mobilization for climate co-benefits;
- (b) Approving the performance indicators for UNDP set out in Table 3 as contained in document UNEP/OzL.Pro/ExCom/57/9 while setting a target of 25 for the number of individual projects approved.

**57th Meeting of the Executive Committee of the Multilateral Fund for the
Implementation of the Montreal Protocol**
(Montreal, 30 March - 3 April 2009)

UNDP 2009 BUSINESS PLAN NARRATIVE

1. Introduction

This narrative is based on two excel tables that are included as **annex 1** to this report.

- The first table lists all ongoing and planned activities for which funding is expected during the period 2009 through 2011 but also contains information for “after 2011” (which includes estimated information from 2012 until 2015).
- The second table lists the same activities, but also adds ongoing individual projects for which no further funding is required, but for which ODP phase out is expected during the same time frame. Unlike the first table, this one doesn’t include funding figures and while the former lists ODP phase out values corresponding to the expected budget that is listed in a given year, the latter only contains ODP phase out values which are listed in the year that they are supposed to be eliminated, i.e. at the completion of the activities.

While activities are included for 2009 and future years, it should be noted that planned activities included in the 2009 column are firm and future years are indicative and are provided for planning purposes only. This explains why the report is called “2009 Business Plan”.

In short, the activities included for 2009 can be summarized as follows:

- There are 46 approved and ongoing multi-year agreements out of which 36 will receive a new funding tranche in 2009 for a combined amount of US\$ 6.3 million.
- There are 21 ongoing institutional strengthening activities out of which 8 will request an extension in 2009 for a combined amount of US\$ 1.5 million.
- The traditional requests with regards to new TPMPs and MDI-activities are winding down fast in view of the pending 2010 Montreal Protocol total phaseout deadlines. Only 4 new requests for TPMPs and 2 MDI Transition Strategies are included for 2009.
- One particular request pertaining to resource mobilization for climate benefits associated to ODS-phaseout efforts was included.
- As a result of ExCom Decisions 53/37, 54/39, 55/43 and 56/16, UNDP has included a large number of HCFC-related activities, including project preparation requests and pilot-demonstration projects. Requests for follow-up investment programmes were however all included after 2009.
- As a result of MOP Decision XX/ 7 (2) a number of ODS-Waste/Destruction project preparation were included as well. They would result in demonstration projects which would be submitted after 2009.
- Finally, also included is UNDP’s yearly request for core unit funding.

The total value of UNDP’s 2009 Business Plan including support costs is US\$ 19.3 million. However, many of the activities that will be developed in 2009 will be submitted in 2010 and beyond, so that the approval-levels in the following 2 years of the triennium are expected to be much higher than in 2009 (US\$ 81.6 million in 2010 and US\$ 72.2 million in 2011).

2. Resource allocation

The excel tables are grouped into various categories, which are reflected in the following summary table.

TABLE 1 – UNDP Business Plan Resource Allocations

Category	2009	2010	2011	After	Total
1. Approved Multi-Year	6,322	672	203	59	7,256
2. Planned Inst. Str.	1,514	3,325	1,514	8,164	14,517
3. Core and Mobilization	2,182	1,971	2,030	6,462	12,645
4. Planned TPMPs	511	662	0	0	1,173
5. Planned / Individual	97	0	0	0	97
6a. HCFC PRP	2,815	130	0	0	2,945
6b. HCFC Pilots/Demos	5,557	0	0	0	5,557
6c. HCFC Follow-Ups	0	68,489	68,489	126,715	263,694
7. ODS Waste	323	6,306	0	0	6,629
TOTAL	19,319	81,556	72,236	141,400	314,512

Notes:

- All values in US\$ '000 and include agency support costs.
- Column "After" covers projects from 2012 through 2014

3. Geographical distribution

UNDP will again cover all regions, with approved and new activities in 79 countries, 58 of which have funding requests in 2009. The number of countries, activities and budgets per region for 2009 is listed in table 2.

TABLE 2 – UNDP 2009 MYA Tranches and New Activities per Region

Region	Nr of countries	Nr of projects	2009 Values
AFR	18	24	2,671
ASP	13	33	6,735
EUR	4	8	705
GLO	1	2	2,182
LAC	22	52	7,026
TOTAL	58	119	19,319

Notes:

- "2009 Values" in US\$ '000 and include agency support costs.
- EUR contains CIS-countries

4. Programme Expansion in 2009

4.1. Background

UNDP's 2009-2011 Business Plan has been developed by drawing upon the analysis provided by the Multilateral Fund's strategic planning framework, through communication with countries that have expressed an interest in working with UNDP to address their compliance and other needs, as well as through negotiation and discussion with the MLF Secretariat and other Implementing Agencies during and post the Inter-Agency meeting held on 26-27 January 2009 in Montreal.

Countries Contacted. Except for some of the activities which were deferred from last year’s business plan, UNDP communicated with each of the countries that figure in the plan -- especially for activities related to HCFCs and ODS-waste/Destruction. Correspondence indicating an interest in working with UNDP was received from these countries.

Coordination with other bilateral and implementing agencies. As it has done in the past, during 2009 UNDP will continue to collaborate with both bilateral and other implementing agencies. Collaborative arrangements in programming will continue with the Government of Canada, the Government of Japan, the Government of Germany and the Government of Italy, as well as with UNEP.

4.2. ODP Impact on the 3-year Phase-out Plan

In the next table – which is based on the first excel sheet of annex 1 – the ODP amount listed in a given year corresponds to the US\$ amount that is approved in that same year. This is even the case for the approved/multi-year category, where the overall cost-effectiveness was applied to each individual funding tranche.

TABLE 3 - Impact upon Project Approval (in ODP T)

Chemical	2009	2010	2011	After	Total
CFC	600.5	135.3	38.2	14.3	788.4
HCFC	6.9	686.0	686.0	1,312.7	2,691.5
MeBr	51.3	-	-	-	51.3
ODS-Waste	-	630.6	-	-	630.6
TCA	45.7	-	-	-	45.7
TOTAL	704.4	1,451.9	724.2	1,327.0	4,207.5

Notes:

- Tonnage in ODP and based on date of project approvals
- Column “After” covers projects from 2012 until 2015
- the figures for ODP related to ODS-waste management and destruction projects are very raw estimates. In addition it has to be clear that those figures are not phase-out as they represent ODS “use” and not “consumption”

If however the ODP impact were calculated at the time of project completion rather than at the time of approval, the table would look as in the next table 4, which is based on the second excel sheet of annex 1. As already mentioned in the introduction of this narrative, the figures are not only different because of different timing, but also because they include ongoing individual projects that will be completed over the next few years. As these projects have been approved before 2009, the ODP of such projects are zero in the above table (ODP at date of approval), but will add a certain amount in the table below (ODP at date of completion).

TABLE 4 – Impact upon project completion (phase-out in ODP T)

Chemical	2009	2010	2011	2012	2013	After	Total
CFC	1,518.9	331.1	840.9	23.5	-	-	2,714.4
Halons	7.1	1.1	1.0	-	-	-	9.2
HCFC	-	-	6.9	686.0	686.0	1,312.7	2,691.5
MeBr	72.0	114.0	-	-	-	-	186.0
ODS-Waste	-	-	-	630.6	-	-	630.6
TCA	95.0	85.0	-	-	-	-	180.0
TOTAL	1,693.0	531.2	848.8	1,340.0	686.0	1,312.7	6,411.7

Notes:

- Tonnage in ODP and based on date of project completions
- Column “After” covers projects from 2011 until 2015

4.3. Project preparation

Requests for project preparation that will be submitted in 2009 are listed in annex 1, and the summary table below shows that there are 53 such activities amounting to US\$ 3,137,001, including support costs. More details on these requests is provided in the following paragraphs related to HCFCs (see paragraph 5.1 below) and ODS Waste Management/Destruction (see 5.2), and will also be included in the respective Work Programmes to be submitted in 2009. Requests would include 8 for ODS-Waste/Destruction programmes and 45 for HCFCs. There are no longer any requests to prepare TPMPs or MDI-projects in 2009.

TABLE 5 – Project Preparation in 2009

Category	Country	Chemical	Short Title	Budget
6a. HCFC PRP	Argentina	HCFC	PRP for HPMP Sector Plan in Foams	161.250
6a. HCFC PRP	Armenia	HCFC	PRP for HPMP-INV: SAGA REF manuf Plant.	32.250
6a. HCFC PRP	Bangladesh	HCFC	PRP for HPMP-INV: FOA Sector Phaseout Plan.	53.750
6a. HCFC PRP	Bangladesh	HCFC	PRP for HPMP-INV: REF Sector Phaseout Plan.	53.750
6a. HCFC PRP	Bangladesh	HCFC	Addl. PRP for non-invest. activ.	64.500
6a. HCFC PRP	Bolivia	HCFC	PRP for HPMP-INV: FOA sector phaseout plan.	53.750
6a. HCFC PRP	Brazil	HCFC	PRP for HPMP-INV: solvents in the manuf sector.	51.751
6a. HCFC PRP	Brazil	HCFC	PRP for HPMP-INV: REF manuf sector.	86.000
6a. HCFC PRP	Brazil	HCFC	PRP for HPMP-INV: air conditioning manuf	86.000
6a. HCFC PRP	Brazil	HCFC	PRP for HPMP-INV: FOA manuf sector.	161.250
6a. HCFC PRP	Chile	HCFC	PRP for Investment Activities	53.750
6a. HCFC PRP	Chile	HCFC	PRP for Investment Activities	53.750
6a. HCFC PRP	China	HCFC	PRP for Demo: resid. air heat pumps to R-410A at Tsinghua Tongfang Art. Env	32.250
6a. HCFC PRP	China	HCFC	PRP for Demo: reciprocating compressors for cold storage at Yantai Moon	32.250
6a. HCFC PRP	Colombia	HCFC	PRP for HPMP-INV: manufacture of FOAs in the REF and other FOAs sectors.	161.250
6a. HCFC PRP	Costa Rica	HCFC	PRP for HPMP-INV: REF manuf sector.	64.500
6a. HCFC PRP	Cuba	HCFC	PRP for HPMP-INV: FOAs used in the REF manuf and other FOA sectors.	53.750
6a. HCFC PRP	Cuba	HCFC	Addln PRP for HPMPs	86.000
6a. HCFC PRP	Dominican R	HCFC	PRP for HPMP-INV: FOAs used in the REF manuf and other FOA sectors.	64.500
6a. HCFC PRP	Egypt	HCFC	PRP for Validation of low-cost HC in Foams	32.250
6a. HCFC PRP	El Salvador	HCFC	PRP for HPMP-INV: FOAs used in the REF manuf at one enterprise.	32.250
6a. HCFC PRP	Georgia	HCFC	PRP for HPMP-INV: assembly of REF equipment.	32.250
6a. HCFC PRP	Indonesia	HCFC	PRP for HPMP-INV: air-to-air air conditioning sector	21.500
6a. HCFC PRP	Indonesia	HCFC	PRP for HPMP-INV: REF manuf sector (except air-to-air air-conditioning).	75.250
6a. HCFC PRP	Iran	HCFC	PRP for HPMP-INV: Firefighting and Solvents Sectors	10.750
6a. HCFC PRP	Iran	HCFC	PRP for HPMP-INV: Rigid FOAs Subsector Plan	32.250
6a. HCFC PRP	Iran	HCFC	PRP for HPMP-INV: REF manuf sector (except air-to-air airconditioning).	48.375
6a. HCFC PRP	Kyrgyzstan	HCFC	PRP for HPMP-INV: assembly of REF equipment.	32.250
6a. HCFC PRP	Lebanon	HCFC	PRP for HPMP-INV: air-to-air air conditioning sector	16.125
6a. HCFC PRP	Lebanon	HCFC	PRP for HPMP-INV: FOAs Sector Plan	26.875
6a. HCFC PRP	Lebanon	HCFC	PRP for HPMP-INV: REF manuf sector (except air-to-air airconditioning).	64.500
6a. HCFC PRP	Malaysia	HCFC	PRP for HPMP-INV: air-to-air air conditioning sector	32.250
6a. HCFC PRP	Malaysia	HCFC	PRP for HPMP-INV: FOAs Sector Plan	107.500
6a. HCFC PRP	Malaysia	HCFC	PRP for HPMP-INV: REF manuf sector (except air-to-air airconditioning).	129.000
6a. HCFC PRP	Mexico	HCFC	PRP for investment activities	161.250
6a. HCFC PRP	Nigeria	HCFC	PRP for HPMP-INV: FOAs used in the REF manuf and other FOA sectors.	53.750
6a. HCFC PRP	Panama	HCFC	PRP for HPMP-INV: FOAs Sector Plan	53.750
6a. HCFC PRP	Paraguay	HCFC	PRP for HPMP-INV: FOAs used in the REF manuf and other FOA sectors.	64.500
6a. HCFC PRP	Paraguay	HCFC	Addln PRP for HPMPs	69.875
6a. HCFC PRP	Peru	HCFC	PRP for HPMP-INV: FOAs used in the REF manuf and other FOA sectors.	86.000
6a. HCFC PRP	Sri Lanka	HCFC	PRP for HPMP-INV: FOAs used in the REF manuf and other FOA; solvents.	43.000
6a. HCFC PRP	Swaziland	HCFC	PRP for HPMP-INV: Palfridge Domestic REF manuf Plant.	32.250
6a. HCFC PRP	Tanzania	HCFC	PRP for HPMP-INV: FOA used in the REF manuf & other FOA sectors.	53.750
6a. HCFC PRP	Turkey	HCFC	PRP for Validation of HFO in XPS Foams	32.250
6a. HCFC PRP	Uruguay	HCFC	PRP for HPMP-INV: FOA used in the REF manuf & other FOA sectors.	64.500
7. ODS Waste	Bolivia	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	32.250
7. ODS Waste	Brazil	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	43.000
7. ODS Waste	Colombia	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	43.000
7. ODS Waste	Cuba	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	32.250
7. ODS Waste	Egypt	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	43.000
7. ODS Waste	Ghana	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	32.250
7. ODS Waste	India	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	64.500
7. ODS Waste	Uruguay	ODS-W	PRP for Demo on ODS Banks Mgt and Destruction	32.250

53

3,137.001

4.4. Non-investment projects

Also including in annex 1 are UNDP's 17 individual planned non-investment projects with a total value of US\$ 7,803,508 including support costs. Included are 9 requests for Pilots/Technology-Validation-projects for HCFCs and 4 demonstration projects (see more details in paragraph 5.2). There are also two requests for an MDI-transition-strategy left from last year that will be submitted in 2009, as well as an activity to address climate co-benefits for HCFC Phase-out programmes (see paragraph 5.3 for the latter). No demonstration projects in ODS-Waste Destruction or Management were included for 2009, as it is anticipated that the 8 requests for project preparation in this area will only lead to approvals in 2010.

Details on all these requests will also be included in the respective Work Programmes to be submitted throughout 2009.

TABLE 6 – Individual Non-Investment projects (DEM/TAS) in 2009

Category	Country	Type	Short Title	Budget	ODP
6b. HCFC Pilots/Demos	China	DEM	Demo project in Solvents (medical devices)	376.250	0.414
6b. HCFC Pilots/Demos	China	DEM	Demo project in Solvents (other)	376.250	0.414
6b. HCFC Pilots/Demos	China	DEM	Demo: resid. air heat pumps to R-410A at Tsinghua Tongfang Art. Env	376.250	3.850
6b. HCFC Pilots/Demos	China	DEM	Demo: reciprocating compressors for cold storage at Yantai Moon	376.250	2.200
6b. HCFC Pilots/Demos	Argentina	TAS	Validation of Low-GWP HFCs in Foams	295.625	
6b. HCFC Pilots/Demos	Brazil	TAS	Validation of Methylal on Foams	498.800	
6b. HCFC Pilots/Demos	Colombia	TAS	Validation re Water in Foams Sector	413.875	
6b. HCFC Pilots/Demos	Egypt	TAS	Validation of low cost HCs in foams	462.250	
6b. HCFC Pilots/Demos	India	TAS	Validation project in Foam	376.250	
6b. HCFC Pilots/Demos	India	TAS	Validation project in RAC	376.250	
6b. HCFC Pilots/Demos	Indonesia	TAS	Validation project in RAC (2)	752.500	
6b. HCFC Pilots/Demos	Nigeria	TAS	Validation re HC Manufacturing	462.250	
6b. HCFC Pilots/Demos	Turkey	TAS	Validation of HFO in XPS foams	413.875	
5. Planned / Individual	Bolivia	TAS	MDI transition Strategy	32.250	
5. Planned / Individual	Lebanon	TAS	MDI transition Strategy	32.250	
3. Core and Mobilization	Global	TAS	Resource Mobilization to address climate co-benefits re HCFCs	269.000	
3. Core and Mobilization	Global	TAS	Core Unit Support	1,913.333	
				7,803.508	6.878

Abbreviations: RAC = Refrigeration and AC manufacturing sectors, HC=Hydrocarbons and XPS = polystyrene

In addition, UNDP will prepare 8 non-investment Institutional Strengthening project extensions in 2009, as indicated in the table below. The total value of IS renewal programming in 2009 is US \$1,172,080.

It should be noted that some four IS requests that might theoretically have been submitted in 2009 were postponed for submission in 2010, as disbursements of their previous phase was very low as of end-2008. Should however disbursements suddenly pick up during the first half of 2009, requests for IS-extensions for these countries might still be submitted at the last meeting of 2009.

TABLE 7 – Non-Investment Institutional Strengthening requests

Category	Country	Chemical	Short Title	Budget
2. Planned Inst. Str.	Argentina	CFC	Several Ozone unit support	334.988
2. Planned Inst. Str.	Chile	CFC	Several Ozone unit support	2.500
2. Planned Inst. Str.	Colombia	CFC	Several Ozone unit support	296.270
2. Planned Inst. Str.	Costa Rica	CFC	Several Ozone unit support	151.100
2. Planned Inst. Str.	Cuba	CFC	Several Ozone unit support	16.200
2. Planned Inst. Str.	Georgia	CFC	Several Ozone unit support	65.200
2. Planned Inst. Str.	Pakistan	CFC	Several Ozone unit support	241.323
2. Planned Inst. Str.	Trinidad and	CFC	Several Ozone unit support	64.500
				1,172.080

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4.5. Submission of new tranches of ongoing Multi-Year agreements in 2009.

UNDP has currently 46 ongoing Multi-Year agreements (including ongoing TPMPs) of which 36 would need to receive an additional funding tranche in 2009. The total from these tranches in 2009 would amount to US\$ 6,069,824. They are as listed below.

TABLE 8 – Ongoing Multi-Year Agreements and their funding in 2009

Category	Country	Chemical	Short Title	Budget
1. Approved Multi-Year	Bahrain	CFC	Phaseout plan CFC phase out plan	43.000
1. Approved Multi-Year	Bangladesh	CFC	Phaseout plan CFC phase out plan	757.875
1. Approved Multi-Year	Belize	CFC	Terminal Phaseout Management Plan	78.480
1. Approved Multi-Year	Bolivia	CFC	Terminal Phaseout Management Plan (CFC)	238.650
1. Approved Multi-Year	Brazil	CFC	Phaseout plan CFC phase out plan	15.000
1. Approved Multi-Year	Cambodia	CFC	Terminal Phaseout Management Plan	91.375
1. Approved Multi-Year	Chad	CFC	Terminal Phaseout Management Plan	89.380
1. Approved Multi-Year	China	TCA	Solvent Sectoral phaseout plan	1,591.000
1. Approved Multi-Year	Congo DR	CFC	CFC phase out plan	77.266
1. Approved Multi-Year	Costa Rica	CFC	Terminal Phaseout Management Plan	177.375
1. Approved Multi-Year	Costa Rica	MeBr	Fumigant Methyl bromide	781.300
1. Approved Multi-Year	Cuba	CFC	ODS phase out plan	113.950
1. Approved Multi-Year	Dominica	CFC	CFC phase out plan	6.540
1. Approved Multi-Year	Dominican R	CFC	CFC phase out plan	215.000
1. Approved Multi-Year	El Salvador	CFC	Terminal Phaseout Management Plan	247.250
1. Approved Multi-Year	Gabon	CFC	Terminal Phaseout Management Plan	43.600
1. Approved Multi-Year	Gambia	CFC	Terminal Phaseout Management Plan	33.245
1. Approved Multi-Year	Grenada	CFC	CFC phase out plan	32.700
1. Approved Multi-Year	Guyana	CFC	Terminal Phaseout Management Plan	99.190
1. Approved Multi-Year	Kyrgyzstan	CFC	Phaseout plan CFC phase out plan	64.500
1. Approved Multi-Year	Liberia	CFC	Terminal Phaseout Management Plan	3.520
1. Approved Multi-Year	Malawi	CFC	Terminal Phaseout Management Plan	51.775
1. Approved Multi-Year	Mali	CFC	Terminal Phaseout Management Plan	161.250
1. Approved Multi-Year	Mauritania	CFC	Terminal Phaseout Management Plan	59.950
1. Approved Multi-Year	Mozambique	CFC	Terminal Phaseout Management Plan	18.530
1. Approved Multi-Year	Nepal	CFC	Terminal Phaseout Management Plan	27.250
1. Approved Multi-Year	Nigeria	CFC	Phaseout plan CFC phase out plan	417.770
1. Approved Multi-Year	Paraguay	CFC	Terminal Phaseout Management Plan	15.500
1. Approved Multi-Year	Peru	CFC	Terminal Phaseout Management Plan	197.263
1. Approved Multi-Year	Rwanda	CFC	Terminal Phaseout Management Plan	47.415
1. Approved Multi-Year	Samoa	CFC	Terminal Phaseout Management Plan	32.700
1. Approved Multi-Year	St Kitts and N	CFC	Phaseout plan CFC phase out plan	3.270
1. Approved Multi-Year	Swaziland	CFC	Terminal Phaseout Management Plan	43.600
1. Approved Multi-Year	Tanzania	CFC	Terminal Phaseout Management Plan	77.400
1. Approved Multi-Year	Togo	CFC	Terminal Phaseout Management Plan	67.580
1. Approved Multi-Year	Uruguay	CFC	Phaseout plan CFC phase out plan	48.375
				6,069.824

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4.6. Formulation of new TPMPs in 2009

While UNDP has prepared and received approvals for 8 new Terminal Phaseout Management Plans (TPMPs) in 2008, 4 new TPMP requests will be formulated in 2009 with preparation funds which were approved in prior years.

TABLE 9 – New TPMPs in 2009

Category	Country	Chemical	Short Title	Budget
4. Planned TPMPs	Angola	CFC	Terminal Phaseout Management Plan	139.750
4. Planned TPMPs	Barbados	CFC	Terminal Phaseout Management Plan	79.281
4. Planned TPMPs	Haiti	CFC	Terminal Phaseout Management Plan	151.844
4. Planned TPMPs	Sierra Leone	CFC	Terminal Phaseout Management Plan	139.750

510.625

TPMP activities will receive highest priority as they will represent the only remaining financial assistance to tackle CFCs before the final phase out target of 1 January 2010. However, in some

cases, efforts are being delayed because some countries have not adopted the London Amendment, while others do not yet have a functioning licensing system in place. The Executive Committee has ruled that for such cases, TPMPs cannot be approved. More in particular, Angola's TPMP is ready but cannot be submitted in view of an ExCom decision taken at the 51st meeting that the country must first ratify the London Amendment.

It should also be noted that there is also a TPMP-entry for Somalia, but as long as the security situation in that country has not improved, UNDP cannot include it for 2009. This is why it was put for submission in 2010. Should however the security situation in Somalia improve, UNDP would then be able to submit this TPMP earlier.

4.7. Investment Projects in 2009 (except for TPMPs).

There are no individual investment projects that will be submitted in 2009.

4.8. Request of UNDP-MPU's Core Funding

As is the case every year, UNDP will request funding for the operation of its core unit funding at the last ExCom meeting of the year. For 2009, this funding amounts to US\$ 1,913,333.

5. Activities included in the Business plan that needs special consideration.

While the preceding paragraph 4 of this report dealt specifically with 2009 activities only, this section 5 are related to all years.

5.1. HCFCs

During 2006/2007 UNDP had assisted twelve countries (Argentina, Brazil, Colombia, India, Indonesia, Iran, Lebanon, Malaysia, Mexico, Syria, Sri Lanka, and Venezuela) to complete their HCFC surveys and has submitted the reports to the Executive Committee. Meanwhile, and further to the 19th Meeting of the Parties, several key decisions were taken by the Executive Committee with regards with HCFCs:

- decision 53/37 which requests the MLF Secretariat to prepare guidelines for HCFC phase-out management plans (HPMP) incorporating HCFC surveys
- decision 54/39 which better defines the notion of HPMPs and provide guidelines as to what they should contain.
- decision 55/43 which amongst other invites the implementing agencies to initiate technology validation and demonstration projects related to replacement technologies pertaining to HCFCs.
- decision 56/16 which defines level of project preparation assistance that would be allowed to develop HPMPs and follow-up HCFC investment activities / sector plans.

Based on these decisions, the first actions will mostly focus on the first two HCFC control measures for 2013 and 2015. UNDP has therefore included three types of HCFC-related activities which are described in more details in the following 3 sub-paragraphs:

- requests for project preparation (2008-2009)
- demonstration projects (2008-2009)
- follow-up investment programmes (2010-2015)

Project Preparation (2008-2009).

In 2008, UNDP received approvals of the following 40 HCFC PRP activities for 32 countries. While it is hoped that a number of HPMPs will be ready in 2009, they may not be finalized in time for the August 2009 deadline for the 59th meeting of the ExCom. As such, the first HPMPs would probably only be submitted for consideration by the ExCom and for financing in early 2010.

TABLE 10 – HCFC PRP Activities approved in 2008

MLF Nr	Short Title	Budget
ANG/PHA/55/PRP/08	PRP of a HPMP	85,000
ARG/PHA/55/PRP/157	PRP of a HPMP	95,750
ARM/PHA/55/PRP/03	PRP of a HPMP	85,000
BGD/PHA/56/PRP/29	PRP of an HPMP	125,000
BRA/PHA/55/PRP/283	PRP of a HPMP	143,750
CHI/PHA/55/PRP/165	PRP of a HPMP	150,000
COL/PHA/55/PRP/69	PRP of a HPMP	173,750
COS/PHA/55/PRP/39	PRP of a HPMP	150,000
CPR/PHA/55/PRP/460	PRP of a HPMP: Ind & Comm Ref	604,000
CPR/PHA/55/PRP/461	PRP of a HPMP: solvent sector	432,000
CPR/PHA/55/PRP/464	PRP of a HPMP: overarching strategy	360,000
CPR/PHA/55/PRP/471	PRP of a HPMP: extr. polystyrene	84,000
CUB/PHA/56/PRP/40	PRP of an HPMP	150,000
DOM/PHA/55/PRP/42	PRP of a HPMP	150,000
ELS/PHA/55/PRP/23	PRP of a HPMP	150,000
FIJ/PHA/55/PRP/19	PRP of a HPMP	85,000
GAM/PHA/55/PRP/20	PRP of a HPMP	85,000
GEO/PHA/55/PRP/26	PRP of a HPMP	85,000
GHA/PHA/55/PRP/27	PRP of a HPMP	85,000
IDS/PHA/55/PRP/183	PRP of a HPMP	173,750
IND/PHA/56/PRP/428	PRP of an HPMP (strategy)	113,750
IND/PHA/56/PRP/430	PRP of an HPMP (HAL and SOL)	20,000
IND/PHA/56/PRP/431	PRP of an HPMP (FOA)	105,000
IND/PHA/56/PRP/432	PRP of an HPMP (AC sector)	125,000
IND/PHA/56/PRP/433	PRP of an HPMP (REF)	80,000
IRA/PHA/56/PRP/188	PRP of an HPMP (strategy)	113,750
JAM/PHA/55/PRP/24	PRP of a HPMP	85,000
KAM/PHA/55/PRP/17	PRP of a HPMP	25,000
KYR/PHA/55/PRP/20	PRP of a HPMP	85,000
LEB/PHA/55/PRP/67	PRP of a HPMP	137,250
MAL/PHA/55/PRP/161	PRP of a HPMP	173,750
MEX/PHA/55/PRP/140	PRP of a HPMP	69,500
MOL/PHA/55/PRP/21	PRP of a HPMP	85,000
NIR/PHA/55/PRP/119	PRP of a HPMP	85,000
NIR/PHA/56/PRP/121	PRP of an HPMP (additional)	45,000
PAN/PHA/55/PRP/28	PRP of a HPMP	150,000
PER/PHA/55/PRP/40	PRP of a HPMP	150,000
SRL/PHA/55/PRP/33	PRP of a HPMP	112,250
TRI/PHA/55/PRP/23	PRP of a HPMP	85,000
URU/PHA/55/PRP/48	PRP of a HPMP	150,000
40		5,447,250

In addition to the above-mentioned ongoing PRP activities, table 5 in paragraph 4.3 shows 45 additional PRP activities for HCFCs that will be requested in 2009 in line with ExCom decision 56/16. They are mostly related to follow-up work in individual enterprise-level projects or to sector or subsector plans. Considerably more information on these requests can be found in UNDP's 2009 Work Programme being submitted at the 57th ExCom meeting. All proposals are based on written requests received from the countries concerned.

HCFC Demonstration Projects (2008-2009).

While two Technology Validation projects were approved for UNDP in 2008 (Brazil and Mexico), table 6 in paragraph 4.4 provides a list of 9 additional Technology Validation and 4 demonstration projects which would be submitted in 2009. These are in line with ExCom decision 55/43 and are being submitted in view of the rapidly changing market, new technology options and the special situation in article-5 countries. A major objective of such types of demonstrations is to find cost-saving methods to the MLF in order to carry out HCFC-investment activities in future years.

As can be seen in table 6, UNDP distinguishes between Technology Validation projects (TAS) and Demonstration project (DEM). The first category are similar to the approvals at the 56th ExCom meeting for Brazil and Mexico. These projects were found to be in line with ExCom decision 55/43 and are submitted in view of the rapidly changing market, new technology options and the special situation in article-5 countries. A major objective of such types of projects is to validate potentially cost-saving technologies that can be applied to future MLF investment projects to phaseout HCFCs in future years. The result of these validations will apply to all countries that would thus benefit from a wider choice of technology options when it comes to real HCFC phase-out efforts. However, just as was the case for Brazil and Mexico approved at the last meeting, there is no ODP associated with these projects as it is pure technology-validation at the level of a system house. All follow-up projects that would benefit from the results of these projects (phase 2) would however be submitted as either demonstration (DEM) or investment (INV) projects with relevant ODP-phase-out. So, down-stream enterprises that depend on system houses would indeed have ODP phase out associated to their projects.

As a result, all HCFC proposals listed in table 6 are considered Technology Validation projects except for 4 of them in China, which will be submitted as demonstration and for which an ODP-value can be added.

1. Foam Sector.

Seven of these demonstration projects relate to the foam sector. Current validated technologies for replacing HCFC-141b in foams are restricted to water/isocyanate, hydrocarbons and HFCs. With water non-performing in thermal insulation applications, HFCs being high in GWP and hydrocarbons high in investment costs, it is important that—along with the investigation of other, recently developed, not yet validated options—these technologies will be validated on approaches to improve their technical, cost and/or environmental performance. ExCom Decision 55/43 reflects this by promoting pilot projects aimed to validate technologies in an A5 context. UNDP has followed recent developments in the foam industry closely. Based on its findings it is preparing/has prepared a total of seven pilot projects which, it believes, cover all currently commercially available products that have potential or have been proven as blowing agent in foams but have not yet been validated in an A5 context or, it believes, could be improved upon. These technologies are:

TABLE 11 – Pilot/Validation technologies for the Foams Sector (budget includes support costs)

Substance	Sub-Sector	Country	Status	Budget (US\$)	Justification
Water/CO ₂	RPF	COL	To 58 th ExCom	413;875	Evaluation in non-critical thermal applications
Hydrocarbons	RPF, ISF	EGY IND	To 58 th ExCom To 58 th ExCom	462;250 376;250	Evaluation of cost saving options Pre-blended formulations for rigid foam SMEs
Liquid HFCs	RPF ISF FPF	ARG	To 58 th ExCom	295;625	Evaluation of climate impact in optimized blends
Methyl Formate	RPF ISF FPF	BRA MEX	Approved Approved	431,613 313;362	Validation of a commercial available product
Methylal	RPF ISF FPF	BRA	To 58 th ExCom	498;800	Validation of a commercial available product
HFO-1234ze	XPS	TUR	To 58 th ExCom	413;875	Validation of a commercial available product

Except in the case of methyl formate, all projects are subject to an agreement with the host countries and the participating enterprises. The proposals are all based on the submittal of a first phase in which the technology is developed locally and validated. That will be followed by the submittal of a second phase of demonstration projects for those applications where the validation proved positive. Such follow-up projects are not necessarily in the same country as phase 1, but where demonstration appears to be most suitable and cost-effective. While phase 1 of such projects (technology-validation only) will not correspond to any ODS phase-out, phase 2 will indeed result in HCFC being eliminated which is why such phase 2 projects will be submitted in the category of “investment projects”.

UNDP sees currently no need for any additional technology-validation projects in the foams sector beyond the ones listed above. However, recently several new blowing agents for PU foams have been proposed by major international manufacturers of halogenated compounds (eg HBA-2, FEA-1100, AFA-L1). These are all geared towards replacement of HFCs. They share low/no flammability, zero ODP and insignificant GWPs. These chemicals still have to undergo substantial further toxicity testing and will therefore not appear in the market within 2-4 years. That may be too late in the MLF/A5 context where the foam sector, using mostly the relatively high ODP HCFC-141b, is prioritized. It will also be too late for these chemicals to play a role in the “freeze +10%” program that will need to be approved by 2010 to be effective by the end of 2012.

It should be noted that more information was provided on Egypt and Turkey as they are already being submitted at the 57th meeting of the Executive Committee and this documentation can thus be found in UNDP’s Work Programme.

2. Other Sectors.

UNDP also plans to submit 6 demonstration / technology-validation projects for the Refrigeration and AC sectors (RAC) and two for the solvents sector. A demonstration on HC Manufacturing is also being considered. They are listed in table 6 in paragraph 4.4 above, but are repeated in the table below:

TABLE 12 – Pilot/Validation proposals for the other sectors

Category	Country	Type	Short Title	Budget	ODP
6b. HCFC Pilots/Demos	China	DEM	Demo: resid. air heat pumps to R-410A at Tsinghua Tongfang Artificial Env	376.250	3.9
6b. HCFC Pilots/Demos	China	DEM	Demo: reciprocating compressors for cold storage at Yantai Moon	376.250	2.2
6b. HCFC Pilots/Demos	China	DEM	Demo project in Solvents (medical devices)	376.250	0.4
6b. HCFC Pilots/Demos	China	DEM	Demo project in Solvents (other)	376.250	0.4
6b. HCFC Pilots/Demos	India	TAS	Validation project in RAC	376.250	-
6b. HCFC Pilots/Demos	Indonesia	TAS	Validation project in RAC (2)	752.500	-
6b. HCFC Pilots/Demos	Nigeria	TAS	Validation re HC Manufacturing	462.250	-
				3,096.000	6.9

2.a. RAC Sector.

Several alternative technologies are either available or emerging for substituting HCFC use in the manufacture of refrigeration and air conditioning equipment. However, most substitute technologies currently available, are either too expensive or have undesirable environmental impacts and moreover have not been commercially applied in Article-5 context. The selection of alternative technologies would need to consider the following factors:

Technical factors

- Processing characteristics
- Functionality in end-product
- Proven and mature technology
- Energy efficiency

Commercial factors

- Cost-effectiveness
- Reliable availability

Health and safety factors

- Low risk for occupational health
- Low risk for physical safety (flammability, etc)

Environmental factors

- Direct ozone impacts
- Direct and indirect climate impacts

The proposed demonstration projects will carefully consider the above factors in evaluating HCFC-22 alternatives for the selected applications and the validation of the selected alternatives in Article-5 context, to establish their techno-economic and environmental feasibility. Upon successful completion, these demonstration projects will:

- a) Develop a replicable project model for HCFC-22 reductions/phase-out for selected applications
- b) Establish technical performance and economic feasibility of the selected technology for the selected applications and introduce and apply the same to similar enterprises
- c) Establish a methodology for calculation of conversion costs, which can serve as a reference for similar applications and enterprises
- d) Facilitate elimination of HCFC-22 consumption at the enterprise(s) participating in the demonstration project.

The proposed projects will generally cover the following main interventions:

- (i) Redesign of products, components and parts to enable application of the selected technology
- (ii) Retrofit the production line and process tooling equipment suitable for the new technology
- (iii) Retrofit the in-house testing and laboratory facilities as may be needed for testing and establishing performance of the new technology
- (iv) Carry out extensive tests and trials to establish technical performance with the new technology
- (v) Assess economic feasibility and environmental performance of the new technology

Country and application-specific modifications would be made to each demonstration project. The key impacts of the projects upon successful completion would be to facilitate reduction or elimination of HCFC-22 in the enterprise(s) participating in the demonstration projects and availability of a project model to replicate in other similar enterprises.

Considerably more information was provided on the two RAC demonstration projects for China as they are already being submitted at the 57th meeting of the Executive Committee and this documentation can thus be found in UNDP's Work Programme.

2.b. Solvents Sector.

The use of HCFCs in the Solvents Sector is emissive, therefore adversely impacting ozone and climate. Recognizing the importance of this sector, China has requested UNDP to include two demonstration projects in the solvents sector for 2009, for conversion to non-HCFC technologies in cleaning of medical devices, which accounts for almost 40% of the total HCFC consumption in the Solvents Sector. These would be submitted to the 58th ExCom meeting as full-fledged projects in a single step, without awaiting approval of project preparation funding.

2.c. Hydrocarbon Manufacturing related pilot project.

A proposal was submitted for Nigeria on the above-mentioned subject at the 56th meeting for the Executive Committee, and Decision 56/28 asks UNDP to reformulate the pilot to take into account views expressed by the ExCom and to obtain more information on the need for hydrocarbons in the country. A market study for Nigeria and surrounding countries is on the way and will be completed during the 1st quarter of 2009. The project will be resubmitted at the 58th meeting of the Executive Committee.

Follow-up Investment Programmes (2010-2015)

HCFC Management Programmes should be approved as soon as possible in order to achieve the 2013 and 2015 benchmarks. In view of an expected implementation time of 2 years (which is very optimistic), there is absolutely no time to waste. Implementing agencies including UNDP however face the following challenges:

- most project preparation for HPMPs were approved in mid or late 2008
- guidelines are still open-ended on key parameters that will greatly influence policy-decisions (such as which sectors to tackle first) and financial requirements. These parameters include the cut-off date for an enterprise's eligibility, eligibility of secondary conversions, starting date to start deducting ODS-consumption, etc
- while the guidelines encourage considerations of co-benefits and synergies with other financial mechanisms, a lot of work will still need to be done in order to incorporate such considerations into the HPMPs.

Taking into account these considerations, UNDP will only be able to finalize HPMPs by the end of 2009, but as already mentioned earlier, certainly not by the deadline of the 59th meeting of the Executive Committee (i.e. August 2009). To arrive at the estimated costs for the HCFC Management Plans in 2010 and 2011, UNDP has roughly used the following method:

- For Low-Volume Consuming countries, and as suggested by the MLFS, levels of funding were used as per page 112 of ExCom document 55/47. Figures were distributed evenly between 2010 and 2011.
- For Non-LVCs, 2007 HCFC consumption figures were used as a basis. It was estimated that 20% growth would still occur from 2007 to the maximum consumption expected to happen during the year of the freeze. As such, the needed reduction to comply with the 10% reduction measure was taken to be $20+10 = 30\%$ of the 2007 consumption. A cost-effectiveness of 100 US\$/kg (ODP) was then applied to this consumption. 50% of this amount was then taken during the years of the current replenishment (2010 and 2011) while the remaining amount was put for outer years (2012 and 2013).
- Where several agencies are active in a country, an estimated percentage was applied to what UNDP thinks corresponds to the sectors it was allocated.
- No distinction was made between HCFC-22 and HCFC-141b in the above methodology.

5.2. Waste Management/Destruction

For the last few years, UNDP has continuously been requested by some countries to include in its Business Plan, activities that would help them to manage their stocks of ODS which can not be reused, as well as the ODS-containing waste, in a sound way. These stocks/waste are dispersed in the countries, in old equipment, containers, cylinders, and to say the least, in the millions of appliances in the countries. Without proper regulatory framework and a programme to deal with them, they are improperly handled and disposed of, adding to the ODS emissions to the atmosphere.

With the CFC phaseout approaching, its increasing price, and the establishment and implementation of the recovery schemes in many countries, those banks of unwanted ODS are increasing, not counting illegally traded ODS, apprehended as a result of the enforcement of legislation in place.

In addition, if one considers ODS containing foams, those banks are really large and potential for sustainable recovery and disposal programmes exist, especially in countries that have reclamation facilities and are engaging in refrigeration replacement and other programs to manage ODS and reduce demand, which also bring important energy savings benefits. The potential for recovery, proper management and disposal of such unwanted ODS banked, has been proven as being possible in developed countries if the proper legislation and price incentives as well as business opportunities exist. Therefore, the business model can be sustainable if certain conditions are in place. Those need to be ascertained for the different countries as they vary from country to country. The applicability of banks management schemes in developed countries needed to be demonstrated in Article 5 countries.

Developing countries lack access to that information and to technical and financial assistance to help them to understand the issues, size them, and be able to design a management system / business model, estimate costs and partnerships needed for such programme to happen, and identify sources of finance.

Demonstration projects would bring the seed money necessary to identify their current situation and potential public-private partnerships, and bring “lessons learned” from developed countries that will help them to think through and establish a solid “unwanted ODS” management system taking into account considerations of sound management of chemicals, as well as finding sound environment solutions for final disposal/destruction that will benefit both ozone and climate. UNDP’s strategy to work in different areas to mobilize additional financial resources is detailed in paragraph 5.3 below.

UNDP submissions for demonstrations/pilot projects are backed by Decision XX/7 on environmentally sound management of banks of ozone-depleting substances, which "requests the Executive Committee of the Multilateral Fund to consider as a matter of urgency commencing pilot projects that may cover the collection, transport, storage and destruction of ozone-depleting substances. UNDP included the countries that asked us to do so. The restricted numbers also follows the MOP decision to allow a “selected number” of such demos. We also focused on countries which have had progress in addressing ODS waste management leading to the need for destruction. In addition we looked at the high probability to find synergies with other sources of existing funds such as UNDP’s GEF-programme on energy-efficiency which often provides links with ODS-waste management/destruction efforts and brings the volume of waste required for such schemes. We also only included countries who requested us to do so.

Annex 3 to this report provides some more information on the proposed demonstration projects.

5.3. Resource Mobilization for Climate Co-Benefits of HCFC Phaseout

UNDP and the Carbon Finance agenda

UNDP has been an active participant in the carbon finance arena over the last five years and has more recently established the MDG Carbon Facility which offers project development and management services to the growing number of Clean Development Mechanism (CDM) and other projects in the compliance market. As far as CDM access is concerned, generally only large countries have had the benefit of it and therefore UNDP has been focusing on the technological and geographical expansion of the scope of projects covered under the CDM. In this context, the MDG Carbon Facility sees itself as an innovative force in the field of carbon finance with development goals as core principle.

One of the areas in which the UNDP MDG Carbon Facility is seeking to enlarge its activities is in the burgeoning voluntary carbon market. Consistent with UNDP's pioneering spirit, an expansion of scope is already foreseen in respect of non-Kyoto gases. In particular, the opportunity exists to extend activities into the funding of appropriate projects covering ozone depleting substances (ODS), an area where UNDP has long-standing expertise having acted as an Implementing Agency for the Multilateral Fund since its inception in the early 1990s. UNDP's current role as Lead Agency for a very significant number of countries seeking to phase-out HCFCs under Decision XIX/6 what puts the agency in a unique position to identify and develop appropriate projects.

ODS Project Opportunities

UNDP sees clear opportunities for projects in at least two areas:

1. Bank management and ODS disposal projects – particularly related to the end-of-life management of appliances.
2. Co-funding opportunities in HCFC phase-out where additional climate benefit can be gained by additional investment in technology selection.

For example, there are clear possibilities to use linkages with other programmes such as energy efficiency actions under the GEF to identify projects and leverage access to old appliances in order to ensure appropriate end-of-life management, and tap into country specific initiatives towards energy savings gains in appliance replacement national programmes.

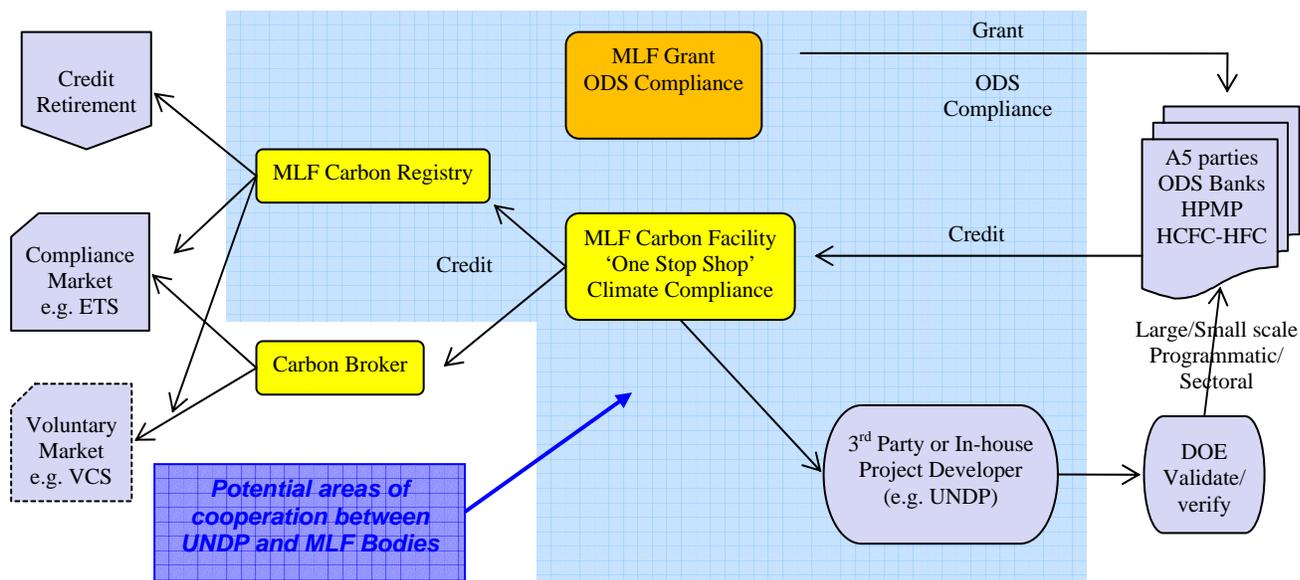
Coordination with the Multilateral Fund and its Secretariat

It is recognised that both project areas are of significant interest to the Executive Committee of the Multilateral Fund, since the Committee is required to give priority to cost-effective projects that optimise climate benefit under Decision XIX/6. The mechanisms by which such benefits are assessed are still under development, but UNDP is actively coordinating with the MLF Secretariat to ensure that approaches to the subject are consistent.

Apart from the evaluation of climate benefit itself, UNDP is keen to work with the Secretariat on mechanisms for accessing co-funding and, in particular, in enhancing the reputation (and value) of credits generated and placed on the carbon market in the face of some concern among some stakeholders that projects involving high-GWP gases are likely to result in a glut of poorly defined credits.

UNDP believes that a dedicated registry could provide a significant contribution to this process and wishes to work with the MLF Secretariat to optimise the interaction between the market framework and the projects themselves.

There are a number of potential models that may ultimately be applicable. To illustrate, the following diagram indicates just one option:



Proposed Activities in 2009

UNDP has significant experience in the carbon financing sector which it can leverage to assist in the development of a sound approach to the co-financing of incremental climate benefits (whether from the market or on a cost-coverage basis). The Montreal Protocol Unit of UNDP has vast experience in the area of ODS projects but has no dedicated budget to seek to apply the carbon financing ‘best practice’ possessed within UNDP via MDG Carbon.

Such a combined and synchronised resource could provide substantial added value to the deliberations of the Executive Committee of the Multilateral Fund and its Secretariat on the co-financing of climate benefits and could offer a proving ground for key ideas. The Montreal Protocol Unit therefore proposes the following steps in 2009:

- 1) Identification and documentation of potential exemplar projects requiring co-financing of incremental climate benefits in the following areas:
 - a. An MLF funded project where incremental climate benefits will come at a cost of >\$25 per tonne of CO₂ saved
 - b. An Article 5 project where the HCFC phase-out is not funded under the MLF but could be funded from the proceeds of the incremental climate benefit.
 - c. An Energy Efficiency project (e.g. GEF) in which E-o-L management of ODS would bring incremental ozone and climate benefits.
 - d. A stand-alone bank management./ODS destruction project which could be based on an existing methodology

- 2) On-going review of emerging methodologies in support of any of the four project types identified above.
- 3) Commissioning of new methodologies, where appropriate, to address specific project types in an environmentally sound fashion
- 4) Assessing risk and financial liabilities and cost effectiveness of different trading options
- 5) Marketing Business Plan and identification of potential buyers
- 6) Coordination and reporting to MLF Bodies on findings and potential pitfalls

Resource Requirements

UNDP estimates that it will need to commit resources of around **\$250,000** plus support costs in 2009 to cover UNDP MPU staff and external expert consulting services. In addition, UNDP would require in house expertise from the MDG carbon facility.

If the above seed funding is available from the MLF, **UNDP is prepared to match that in co-finance**, to cover for the time of its Carbon Finance team and related operational costs (US\$ 250,000) that would be used to fully backstop MPU team and provide legal support as well as share with the Secretariat the UNDP's experience in setting many Facilities, among them the MDG Carbon and UN REDD Facilities.

Four different scenarios have been identified that could benefit from co-funding (a to d). Some of the valuable outputs from assessing these four exemplar projects would be an assessment of the extent to which:

- Existing methodologies are available
- There are precedents of such projects already available
- There are would-be partners who would work with the MLF on co-funding
- There is acknowledgement that these could fit into a wider funding framework with linkage between Executive Committee of the MLF and the Executive Board of the CDM

This could be documented in a Report which uses the 'particular' to drive thinking on the 'funding framework' required. We could envisage a four-by-four matrix of the projects assessed against the items listed above (this may not be exhaustive)

Items (2) and (3) on the deliverables list are really only examples of what might need to be done to facilitate the accessibility of carbon finance for these four project types.

Therefore, we do not see this yet as progressing immediately to four concrete project proposals. We are looking for the best ultimate solution to encapsulate all four project types rather than to take what is already 'on-the-shelf' and applying it with the risk that this will potentially not fit the project in mind.

We therefore envisage the following steps in the process, which would probably constitute the major headings of the report UNDP plans to produce:

1. A full analysis of the four project types and their potential climate benefits
2. A review of existing carbon financing options and the pros and cons of each of them
3. Some ideas on how these project types could be incorporated within one mechanism
4. Existing barriers to such a mechanism and the actions required to remove those barriers

The added value that the UNDP involvement brings is in 'concrete examples' of the type of project that is 'out there' as well as a broad overview (via MDG Carbon) of the wider fit within the carbon agenda.

6. MEASURES TO EXPEDITE IMPLEMENTATION OF APPROVED PROJECTS AND THOSE CRITICAL TO COMPLIANCE

6.1. Phase-out from Approved Ongoing Individual Projects.

Table 11 below indicates the amount that will be phased out from approved, ongoing individual projects.

TABLE 14 – Phase-out from Approved Ongoing Individual projects (ODP tonnes)

Chemical	2009	2010	2011	Total
CFC	604.0	1.0	732.0	23.5
Halons	6.0	-	1.0	-
HCFC	-	-	-	686.0
MeBr	12.0	-	-	-
ODS-Waste	-	-	-	630.6
TCA	11.0	-	-	-
TOTAL	633.0	1.0	733.0	1,340.0

It may seem strange that so much CFCs is slated to be phased out in years beyond 2009. This is because the amounts correspond to dates that projects are expected to be completed. The reality is however that enterprises may phase out before the official project completion date and/or use recycled or stockpile CFCs in the interim if need be. Most of the CFC consumption shown as being left for 2011 is related to the recently approved MDI investment projects which are due to be completed in that year.

The total amount reported in the same table last year was 2053, two years ago 2,445, three years ago 3054 and four years earlier 4,497 ODP tonnes. As can be seen, the amount of tonnes to be phased out in individual ongoing projects is going down each year. This is due to the fact that most new approvals are in the form of “multi-year agreements” rather than “individual projects”.

It should however be noted that information about 2009 project completion only becomes available at progress report time, so that the above figures are only estimates and may in fact become lower (i.e. more may have been phased out in 2008). In addition one should note that, in 2006, the ODP of all RMP components were revised upwards by the MLFS to reflect true 85% CFC phase out. If not, the figures in the above table would also be significantly lower.

As mentioned in last year’s business plan, UNDP continues to make efforts to expedite the implementation of approved projects and especially for those that are critical to compliance. UNDP’s Montreal Protocol Unit (MPU) evaluates on an annual basis and adjusts the way it operates so as to better assist countries to comply with the MP control measures in accordance with the strategic direction provided by the MLF during this triennium. The efforts will continue in 2009 as highlighted below:

6.2. Strengthening the Network of UNDP staff and Experts in the Field and Challenges

- In respect of implementation, in 2008, UNDP has started implementing a plan to reinforce its capacities both at the field level and at HQ. The UNDP MP Unit, while maintaining its outposted positions in Bangkok, Bratislava and Panama, has strengthened its presence in the field in Asia by recruiting a Senior Regional Coordinator who oversees the work of the Programme Officer and the assistant in the Bangkok office. In 2009, UNDP will add at least two professional staff and one general service staff to its team to face the increasing workload due to the phase out of HCFCs. This will also allow for better monitoring and trouble shooting assistance at field level. MPU will also

improve its capacity at headquarters to assist with recruitments and contracting, be it at the global level or to provide specific assistance at the national level.

- The efforts initiated in 2008 have led to an increased delivery rate based on estimated 2008 expenditures.
- At a global level, UNDP BDP is working on improving the delivery capacity at the country office level. MPU is actively participating in this endeavour. BDP has launched the “service delivery platform” and MPU is putting together a “swat” team to tackle country specific issues that require urgent responses.
- Otherwise, MPU strategy remains rooted in the “Country Driven” concept, working consistently with national experts and institutions, and national Governments, so as to better address the needs of countries and speed up response time at the field level; conducting monitoring and evaluation of multi-year performance-based phase-out projects with agreements in close cooperation with national experts and government focal points as well as with other IAs; and continuing with the National Execution (NEX) modality, that serves to enhance the role of national experts and national institutions, thereby building national capacity.
- UNDP wishes to reiterate that while it believes that enhanced field presence allows for more direct supervision of activities, UNDP continues to encounter difficulties for LVCs in which RMP components and TPMPs are being implemented, as the level of support cost does not allow for reimbursing the country office at a rate that would bring sufficient level of monitoring at the UNDP country office level and/or at the level of consultancy components to ensure smooth implementation.
- Finally, UNDP will continue to focus on follow up with executing agencies and country offices to financially close outstanding operationally completed projects in order to return remaining funds to MLF. Our finance team will continue to ensure adequate management of financial reporting and follow-up on requirements related to the implementation of national and sector phase-out plans, and maintain close contacts with Secretariat and Treasurer.

6.3. Management and Supervision of National/Sector Plans

There are currently 46 ongoing Performance Based National and Sector Plans with UNDP which are listed above in annex 1, table 2.

- UNDP will continue to assist the countries in which it is implementing national and sector phase-out plans to establish and sustain the infrastructure for the National Implementation and Monitoring/ Management Units approved under the national/sector Plans, working closely with Government and operating under MLF and UNDP guidelines related to procurement of goods, data verification requirements, proper financial management and auditing, as well as required reporting on the progress of the Plans.
- National ODS legislative and regulatory frameworks are assessed and, if deemed inadequate to support and sustain the target reductions contained in a performance-base agreement, are presented to the relevant Government authorities with suggested revisions. Monitoring of CFC imports and distribution will continue to be strengthened as a mechanism to prevent enterprises (who have converted) from making future purchases of CFCs. UNDP will also continue to assist countries put in place, or strengthen, verification mechanisms, both from a top-down approach - ensuring that appropriate licensing systems are in place, as well as a bottom-up approach – supporting enhancement of government registries that detail purchasers of CFCs, as well as enterprises that have been assisted by the Fund.
- As far as meeting agreed targets, UNDP and Government staff will continue to work in partnership to

establish the mechanisms for preparation of projects to be funded under the Plans (in accordance with MLF guidelines, independent technical reviews etc.), as well as to monitor their implementation (procurement of equipment/materials, list of equipment to be destroyed, technology selection regulations, etc.). Reports on progress, key to measuring success of implementation and phase-out, as well as identifying challenges, are the result of a collaborative effort between National Management teams and UNDP.

UNDP believes that the aforementioned measures will continue to assist countries to expedite implementation, as well as allow for a comprehensive assessment of additional needs at the country-level, thereby more effectively supporting the compliance-driven model. Specific ODP related information on on-going UNDP projects, on a country-by-country basis, has been provided as part of the BP tables. The measures above are intended, as before, to be extended to all programming, on-going and planned, so as to maintain momentum, accelerate implementation where required, improve supervision, as well as financial accountability, at the field level.

As already pointed out in section 6.2 however, most of the new TPMPs developed last year are in low volume consuming countries with relatively lower budgets and associated support costs.

As the work-volume has risen significantly due to the new control measures related to HCFCs, the additional resulting strain to UNDP's already limited staff resources that was pointed out last year is now a reality. Indeed, there are huge challenges ahead of UNDP to deliver on a large number of HPMPs in such short time. UNDP is concerned about this situation and has decided to increase its staff level as mentioned in paragraph 6.2. Investment in learning time and training for staff will be required. With the climate change and energy linkages and the need for resource mobilization outside the MLF, new skills will need to be added to the team. Therefore, changes in MPU business model, new staff recruitment, increase roster of internal and external partners and experts-as well as greater internal partnerships across focal areas- are expected. UNDP senior management has offered full support to the MP Unit to address matters as expeditious as possible.

The overall success of the programme will bring great climate mitigation and ozone protection benefits.

6.4. Country Developments and UNDP Efforts to Address Compliance

6.4.1. UNDP efforts in countries addressed by the Implementation Committee and by the MOP

UNDP is working to assist a number of countries address their compliance commitments, following issues raised by the Implementation Committee in 2008 and corresponding decisions taken by the 20th Meeting of the Parties. These include countries where UNDP manages the Institutional Strengthening programmes, as well as countries where UNDP is playing a significant role in a particular sector. In addition to the measures mentioned above, there are no new compliance issues for UNDP countries as discussed in the last ImpCom and MOP meetings in Doha, with the exception of Bangladesh listed below:

Bangladesh: Bangladesh's consumption of CFC in the MDI sector took up most of the time of the implementation committee in 2008 without successful resolution of the compliance issues being faced by this party. UNDP as the implementing agency for the IS project in Bangladesh and the lead agency for the implementation of the NoPP and the MDI conversion project will continue to work with this party to implement as quickly as possible these two projects to assist the party in meeting its compliance targets.

As reported in the last business plan of UNDP, there were a number of countries that were to be assisted. This assistance was provided and there are no remaining issues with these countries apart for Bangladesh.

6.4.2. UNDP efforts to support verification of Article 7 data (in support of Decision 41/16)

As part of the activities that UNDP will continue to undertake in 2009, and as done in the past for UNDP-IS countries, UNDP will continue to work with National Ozone Units in partner countries to verify the consistency of their Article 7 data reporting and project phase-out data presented. The underlying aim of such an exercise is to ensure the accuracy of data in order to facilitate verification of phase-out achievements and identify potential and/or existing problem areas, such that remedial action, as necessary, may be initiated. In addition, lessons learned and recommendations gathered from independent verification reports are taken into consideration by UNDP and partner Governments in order to enhance reliability and consistency of data reporting.

6.4.3 UNDP efforts to sustain implementation of servicing sector projects in countries where UNDP has received funds for implementation of RMPs/TPMPs and/or components thereof

UNDP has implemented, and continues to implement, many activities in the refrigeration servicing sector. These include: early MLF domestic and MAC sector recovery and recycling projects, full RMPs approved prior to Decision 31/48, recovery and recycling RMP components, both pre- and post-Decision 31/48, end-user incentive programmes and more recently Terminal Phase Out Management Plans (TPMPs). UNDP maintains an active cooperation with UNEP on the implementation of projects in the servicing sector, where UNEP manages the non-investment and UNDP the investment components. Over the course of 2009, UNDP will concentrate efforts on the formulation and implementation of TPMPs in order to assist countries in establishing strategic plans that allow for achievement of the 2007 CFC consumption reduction target and place them well on track to meet the upcoming 2010 100% phase-out target. UNDP will also collaborate in the formulation of Terminal Phase Out Plans required for compliance.

7. PERFORMANCE INDICATORS

UNDP 2009 Investment Project Performance Indicator Targets:

Decision 41/93 of the Executive Committee approved the following indicators to allow for the evaluation of performance of implementing agencies, with the weightings indicated in the table below. UNDP has added a column containing the “2009 targets” for those indicators. Some of these targets can be extracted from UNDP’s 2009 business plan to be approved at the 57th ExCom meeting in April 2009.

Category of performance indicator	Item	Weight	UNDP’s target for 2009	Remark
Approval	Number of annual programmes of multi-year agreements approved vs. those planned (new plus tranches of ongoing MYAs).	20	40	(36 from table-8 + 4 from table-9 above)
Approval	Number of individual projects/activities (DEM, INV, TAS, one-off TPMPs, TRA, IS) approved vs. those planned	20	22	(3 TAS, 11 DEM, 0 INV, 0 one-offs TPMPs, 8 IS) (See paragraphs 4.4, 4.7)
Implementation	Milestone activities completed /ODS levels achieved for approved multi-year annual tranches vs. those planned	20	36	(See paragraph 4.5 above → 1 milestone per ongoing MYA)
Implementation*	ODP phased-out for individual projects vs. those planned per progress reports	5	633	See table 14
Implementation*	Project completion (pursuant to Decision 28/2 for investment projects) and as defined for non-investment projects vs. those planned in progress reports	5	98	This can be better determined after progress report is submitted in May 08 but we took 98 as an estimate for the time being.
Implementation	Percentage of policy/regulatory assistance completed vs. that planned	10	100%	1 out of 1 country with compliance issues as listed in paragraph 6.4.1. will have received policy assistance by UNDP
Administrative	Speed of financial completion vs. that required per progress report completion dates	10	On time	
Administrative*	Timely submission of project completion reports vs. those agreed	5	On time	
Administrative*	Timely submission of progress reports and responses unless otherwise agreed	5	On time	

Note: tbd = to be determined

Annex 1 – See Excel Tables

Referring to paragraph 5.2 on UNDP's Proposed ODS-Waste/Destruction demonstration projects, some additional information from countries being considered is listed below.

1 & 4. Bolivia and Uruguay

National Ozone Units of both LVC countries have been receiving several reports from the refrigeration servicing sector indicating there is contaminated CFC 12 stored and no solution is provided for those. There have been difficulties to measure the volumes of ODS in banks in the countries as individual volumes are not big and storage is spread; this situation seems to be common in LVCs. There is interest from the Governments to undertake a pilot project to avoid CFC emissions to the atmosphere and provide an environmentally sound solution to the contaminated CFCs, which has been cumulated since the beginning of their projects in the servicing sector. The projects will seek to generate data and experience on collection of contaminated CFC in LVCs including costs and logistics of collection, options for disposal and ways to improve LVCs strategies to manage and destroy ODS banks.

2. Brazil.

In Brazil, 90% of its population of 180 million has at least one refrigerator. In order to reduce energy demand, the government took several actions, including passing legislation mandating all utilities to apply 0.5 % of their net annual income in Energy Efficiency projects, stimulating the market for EE products. An agreement between the Government and Utilities in 2006 on CFC-12 collection by utilities in their appliance replacement programmes allowed the inter linkages needed with the MLF approved NPP and its reclamation centers and better management of CFCs recovered.

In 2008 the first pilot project initiated by one Utility replaced 50,000 refrigerators but no solution for insulation foam existed. Initially, Brazil asked UNDP to assist in finding solutions for a sustainable business to recover CFCs from foam and compressors and recycle the refrigerators. The recycling program and collection of ODS from insulation foam needed solutions as far as technology and costs. Germany donated 5 million Euros into this de-manufacturing component that will allow fridge recycling equipment and training as well as certification of recycling standards.

The potential for a sustainable business model for refrigerators recycling (de-manufacturing) in Brazil is now real, as 1 million refrigerators will be replaced per year- as per official Government plan approved by the President. This will bring new business in the country, stimulating private sector to compete for such de-manufacturing operations.

Nevertheless, there is no solution for the destruction portion linking the efforts on the ground , as the equipment replacement pilots scale up to cover other states. The MLF demo requested will help to link existing equipment replacement programmes to recycling centers/ installations, look into transportation logistic , legislation/regulatory measures/standards needed, leading to a sustainable business model for proper disposal of ODS wastes. Destruction technologies evaluations, identification of potential partnerships as well as finance options , including the potential for income from carbon finance in the voluntary market are foreseen.

Annex 2 – Supplementary Information on proposed Demonstrations in ODS-Waste/Destruction

The pilot proposed will be of particular importance as in Brazil only 91 Tones of ODS were identified and are ready in storage for destruction as result of the recover and recycling of CFCs, from compressors during the regular servicing of equipment (not in foams).

There are now in Brazil additional 7,150 Tones of CFC installed in domestic refrigerators to be de-manufactured and replaced by energy efficient ones generating additional CFCs that will need to be destroyed. In addition, Brazil has an approved US\$ 13.5 million GEF project (Market Transformation for Energy Efficiency in Buildings), plus US\$ 15 million IADB, that will transform the market for EE products, leading to inefficient chillers replacement, adding to the amount of ODS recovered to be destroyed.

The above appliance replacement schemes have been proven to be successful in developed countries, when proper legislation and incentives are in place and the business is sustainable. Its applicability in different Article 5 countries with different circumstances is to be demonstrated.

3. Colombia

Colombia is the largest refrigerator producer in the Northern zone of South America with an estimated annual production of 1,300,000 units. More than 40 % of the production is exported to Venezuela, Ecuador, Peru and Central America. Local consumption (production plus imports) is in the range of 800,000 units per year.

Since December 2005 Colombia has an overall policy for the management of hazardous waste, where ODSs are included. This policy is covered in the Resolution 4741 of 2005 based on the implementation of Basel Convention.

The stock of ODS ready to destroy at September of 2008 is 19,314 Tones including CFC 11, CFC 12, Halon 1301, HCFC 22, CFC/HCFC blends. There is a detailed inventory by sector and by enterprise specifying contaminated, recycled and virgin material.

Between April and August 2008 the Government of Colombia implemented an initiative to substitute CFC based domestic refrigerators and to dispose them in an environmentally sound way. A total of 2000 CFC based domestic refrigerators of different sizes and brands were collected and dismantled. One of the biggest refrigerators retailers, one materials recycling company and two of the most important domestic refrigerators manufacturers participated in the initiative. The initiative aimed to study impact on CFC emissions, reduction on energy consumption and reuse of residual materials; and to generate awareness of final users on energy and environment issues. This initiative helped put together all the stakeholders involved in the process and allowed the creation of a favorable environment for the search of economic and legislative mechanisms that could help remove the barriers for substitution of the estimated 3 million CFC based units still working in the country, with the environmental benefits that this represents. It also provided valuable data on the average materials composition and energy consumption of the old domestic refrigerators produced in the country.

The above would be an excellent starting point for a pilot project on ODS destruction in this country that has the commitment of the government and local industry. There are still uncertainties and the need to analyze important aspects of larger scale operations such as available options and costs for logistics (including storage and transport) and final disposal of the CFCs stockpiles, possible legislative measures associated and financial mechanisms that could

help cover the costs, among others. The assistance proposed is critical to Colombia to help to address these issues.

4. Uruguay: see 1.

5. Ghana

Ghana, like many other developing countries, has a relatively large local market in inefficient used and rehabilitated refrigerators. It is estimated that there are currently 2.9 million refrigerators/freezers in the residential and non-residential sectors. Ghana is in the process of transforming its national refrigerator market to replace the old, inefficient refrigerators and freezers with new more efficient and environmentally friendly refrigeration appliances. Ghana is planning on using carbon credit finance to help finance the advertising and incentive program that will be removing the older, used refrigeration appliances from the market.

Ghana also would like to look into the possibilities to not only scrap the older refrigeration appliances, but also to recover the ODS from these appliances, to dispose and destroy these substances and to obtain the appropriate GHG emissions reduction credits. But collection and disposal is expensive and the GHG crediting mechanism for the ODS is not yet established. A mechanism for receiving and properly destroying the ODS would be an extremely useful complement to the efficiency market transformation program. This aspect would be specifically dealt with through the proposed MLF demonstration component which would show the results of ODS destruction and finance options which will be conducted.

The proposed MLF demonstration project would be linked to a GEF proposal entitled “Promoting of Appliance Energy Efficiency and Transformation of the Refrigerating Appliances Market in Ghana” for US\$ 3.95 million (of which US\$ 1.95 million would come from the GEF) which was submitted by UNDP to the GEF in September 2008.

6. Cuba

Cuba has a national funded Energy Efficiency project, where they intent to replace 3 million domestic refrigerators, of which 2.6 million have been replaced so far. This programme has been on-going for several years, and the ozone unit has provided the programme with recovery machines to recover the CFCs. All the logistics related to recollection and de-manufacturing of domestic refrigerators is in place, and they have so far recovered more than 100 tons ODS. Cuba seeks assistance to set up a destruction project for the recovered CFC. The project will be implemented jointly with Japan, and Japan will help Cuba to identify technological solutions for the destruction. UNDP would help to identify options to mobilize finance and get partnerships required

7. Egypt

UNDP is implementing a US\$ 5.4 million GEF-supported programme in removing barriers towards achieving energy-efficiency in various economic sectors. Several labs were accredited to assess energy-efficiency levels of household appliances such as refrigerators and freezers. 220 fridges were tested for EE levels. The requested demonstration project will allow Egypt to link results and legislation framework for EE existing initiatives contained in the GEF project to

bring the incentives to establish an appliances de-manufacturing and recycling management system to proper collection and final disposal of ODS. There is already a high-level Governmental support to this current approved GEF project. As it relates to available ODS stockpiles, according to NOU's rough estimates from 2007, the stockpiles could be 2,000 tons. A detailed survey is required to understand the exact figures and their breakdown by chemical since ODS waste is available in foams, A/C, refrigeration and fire-fighting sector. Carbon finance and other options to mobilize resources and partnerships will be identified during the demonstration project.

8. China and India

China and India are large producers of appliances and equipment. There is a very large existing population of CFC-based appliances, such as household refrigerators, freezers as well as commercial and industrial refrigeration equipment containing CFCs. Estimates of the total size of these banks in these two countries are available from many sources and generally range widely from 25,000 to 500,000 metric Tones, however this needs to be established. It is expected that during the medium to long term (3 to 15 years), a significant proportion of the population of CFC-based appliances and equipment would need to be replaced due to various reasons such as end of useful life, energy efficiency considerations, consumer preferences, business reorganization, etc., potentially making large quantities of CFCs available for disposal, along with the consequent challenges to minimize emission risks.

The proposed pilot projects for ODS disposal in India would:

- a) Establish estimated sizes of CFC banks, through survey of representative samples
- b) Prioritize accessible banks for replacement programmes
- c) Establish a representative sample size of banks covering two applications (household appliances and industrial/commercial refrigeration equipment), in which interventions on energy efficiency, waste disposal and CFC management would be implemented, demonstrating the selected technologies and their synergies with environmental objectives across conventions, as well as multi-source financial mechanisms
- d) Propose policy and regulatory interventions which would support successful scaling up of ODS disposal measures
- e) Identify and assess risks associated with the above interventions and propose mechanisms to manage these risks
- f) Assess and document the comprehensive environmental impact of the above interventions.