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执行蒙特利尔议定书
多边基金执行委员会
第五十七次会议
2009 年 3 月 30 日至 4 月 3 日，蒙特利尔

开发计划署 2009-2011 年业务计划

执行蒙特利尔议定书多边基金执行委员会的会前文件不妨碍文件印发后执行委员会可能作出的任何决定。

基金秘书处的评论和建议

1. 本文件概述了开发计划署 2009-2011 三年期期间计划开展的淘汰消耗臭氧层物质（ODS）的活动。文件中还列有开发计划署业务计划业绩指标、一般性评论和供执行委员会审议的建议。开发计划署 2009-2011 年业务计划载于附件一。

2009-2011 年计划开展的活动

2. 虽然该业务计划是一项三年期连续业务计划，但其中大多数细节是关于 2009 年的。2010 年和 2011 年计划开展的活动，除了那些与现有多年期协定有关的活动之外，都只是暂时列入，在执行最终的 2009-2011 年业务计划过程中可能会修改。

2009 年计划开展的活动

3. 开发计划署计划为 2009 年提交的项目总金额为 1,932 万美元（包括项目支助费用），用于逐步淘汰 704 ODP 吨。该项业务计划包括：

(a) 与 36 项正在执行的行业多年期协定和物质淘汰有关的付款，共 632 万美元，付诸实施后，将淘汰 589 ODP 吨消耗臭氧层物质；

(b) 4 项新的多年期协定，总金额 510,625 美元（三年期共计 102 万美元），将淘汰 14 ODP 吨消耗臭氧层物质（三年期共淘汰 29 ODP 吨）；

(c) 1 个单独的最终淘汰管理计划审核项目（TPMP)，总金额 32,250 美元；

(d) 项目编制，金额 314 万美元；

(e) 24 个非投资项目，总金额 740 万美元，包括 8 个体制建设项目（151 万美元，94 ODP 吨）、13 个示范项目（556 万美元，7 ODP 吨）和 3 个技术援助项目（333,500 美元）；以及

(f) 核心单位费用 191 万美元。

2010 年计划开展的活动

4. 2010 年，开发计划署计划提交多个项目，总金额 8,156 万美元，目的是逐步淘汰 1,452 ODP 吨。其中 7,525 万美元用于按照注重履约模式展开的各种履约活动、6,862 万美元用于氟氯烃活动。此外还包括 631 万美元用于非履约所需的消耗臭氧层物质处置活动。

2011 年计划开展的活动

5. 2011 年，开发计划署计划提交多个项目，总金额 7,224 万美元，目的是逐步淘汰 724 ODP 吨。其中 7,224 万美元用于履约活动，包括了用于氟氯烃活动的 6,849 万美元。

资源分配

6. 表 1 列有开发计划署 2009-2011 年业务计划中的资源分配概要。

表 1

资源分配（1,000 美元）

	2009 年	2010 年	2011 年
履约所需			
核定多年期协定	6,322	672	203
执行机构核心单位费用	1,913	1,971	2,030
体制建设	1,514	3,325	1,514
最终淘汰管理计划审核	32		
最终淘汰管理计划	511	662	
氟氯烃－示范	5,557		
氟氯烃－示范编制	129		
氟氯烃淘汰管理计划	269	32,608	32,608
氟氯烃淘汰管理计划编制	220		
氟氯烃淘汰管理计划－投资项目		35,881	35,881
氟氯烃淘汰管理计划－投资准备	2,465	130	
小计（履约所需）	**18,932**	**75,250**	**72,236**
非履约所需			
消耗臭氧层物质处置	323	6,306	
计量吸入器－战略	65		
小计（非履约所需）	**387**	**6,306**	**0**
共计	**19,319**	**81,556**	**72,236**

7. 2009 年开发计划署正争取筹资近 1,932 万美元。开发计划署的业务计划中，1,893 万美元用于履约所需活动，387,000 美元用于非履约所需活动。非履约所需活动包括消耗臭氧层物质处置（322,500 美元）和计量吸入器行业战略项目 （64,500 美元）。

8. 开发计划署从多边基金获得的预计供资额将从 2009 年的 1,932 万美元增至 2010 年的 8,156 万美元，2011 年又降至 7,224 万美元。开发计划署已确定了 2011 年之后的活动金额为 1.414 亿美元。除 1,469 万美元外，所有都将用于氟氯烃活动。

执行和履约援助

9. 在 2009-2011 三年期期间，开发计划署计划将通过正在执行的各种项目和多年期协定逐步淘汰 2,957 ODP 吨。此外，开发计划署指出，将通过在三年期期间提交批准的新项目逐步淘汰 116 ODP 吨。

一般性评论

10. 表 1 按照为 2009 年、2010 年和 2011 年申请的金额列出各种非履约所需的活动。

氟氯烃活动

消费量、ODP 值及成本效益的估算

11. 为使 2009 年业务计划能够反应氟氯烃消费的加速增长以及氟氯烃 ODP 值的计算，开发计划署假定消费量相比 2007 年增长 20%， 2011 年后减少 10%。因此，开发计划署认为，要在 2015 年实现 10%减少量的目标，需要筹集的金额为 2007 年金额的 30%。

12. 为估算非低消费量国家的 ODP 值，开发计划署将 100 美元/公斤 ODP 用作平均成本效益值。对于低消费量国家，开发计划署应用了《氟氯烃成本书》（UNEP/OzL.Pro/ExCom/55/47，附件四）中的估算外加支助成本。开发计划署的估算基于气候中性的逐步淘汰举措，而不包括为获得气候效益而付出的额外费用。

氟氯烃泡沫塑料示范项目

13. 关于氟氯烃泡沫塑料示范项目相关的时间问题，开发计划署指出，将对验证提案（技术援助）和真正的示范项目的时间进行区分：前者的时间为 7-12 个月，后者的预计时间为 2 年。开发计划署也表示，此类示范应帮助实现冻结目标，而其他新的泡沫技术则不一定能为冻结和 10%减少量目标的实现提供及时的帮助。

14. 秘书处已经指出，所有氟氯烃示范项目都应包含 ODP 值目标；但开发计划署却未曾提供其氟氯烃示范项目的任何 ODP 值。开发计划署回答称，在巴西和墨西哥的项目之所以没有 ODP 值目标，因为它们针对的是配方厂家层面的技术验证问题。然而，开发计划署进一步指出，利用这些项目及其后续阶段结果的所有后期项目，都应作为示范项目或者投资项目提交，并附有消耗臭氧层物质淘汰目标。这将包括巴西和墨西哥的甲酸甲酯项目。此外，开发计划署指出，它正在针对技术援助对现有的氟氯烃示范项目进行再分类，但中国的提案除外，它们仍将作为示范项目并应附有消耗臭氧层物质的淘汰值。

15. 关于为巴西提议的甲缩醛技术，开发计划署已表示，技术验证项目部分是为了调查该技术在第 5 条国家的商业和技术可行性——尽管在非第 5 条国家这已经得到验证。但是 80%的第 5 条国家还未能对使用碳氢化合物所需的 350,000 至 500,000 美元的投资额度表示

认可。因此，诸如甲酸甲酯和甲缩醛等比碳氢化合物价格更贵的物质则是更受欢迎的替代品，因为它们相关的投资额会更低。

16. 开发计划署已递交两个示范项目的项目编制请求：其一在埃及，旨在验证硬质整皮泡沫塑料中用碳氢化合物取代 HCFC-141b 的成本效益和可行性；另一项目在土耳其，内容关于在挤塑聚苯乙烯泡沫塑料板中 HFO-123ze 的应用。这些请求也被纳入开发计划署的工作方案（UNEP/OzL.Pro/ExCom/57/18）。

氟氯烃制冷示范项目

17. 秘书处要求开发计划署明确其为中国、印度和印度尼西亚示范项目所提议的是哪些技术，以及其认为当前这些 HCFC-22 示范项目值得实施的根据是什么，而不是等未来当更低全球变暖潜能值的替代技术出现时再实施。关于清华同方人工环境有限公司将 HCFC-22 空气源家居用热泵机组转换成 R-410A 机组的示范项目，该项目将特别为 HCFC-22 的减少/淘汰开发出一种可复制的项目模式。该项目的主要作用是在项目建成时减少 70 公吨 HCFC-22，并进一步通过中国的空气源家居用热泵机厂商来减少或淘汰 HCFC-22。关于烟台冰轮集团有限公司冷藏用活塞式制冷压缩机转化的示范项目，开发计划署指出该项目将保证中国国内能够生产非氟氯烃压缩机。此外，开发计划署在向执行委员会第五十八次会议提交的工作方案修正案中将为印度和印度尼西亚项目提供额外论证。

氟氯烃溶剂示范项目

18. 开发计划署在 2009 年业务计划中列入了两项中国氟氯烃溶剂示范项目的项目编制活动。其中一个示范项目与医疗器械相关，由此会产生一个提交给第五十八次会议的项目。对于另一示范项目，中国政府还未做出决定。开发计划署指出，第一个项目的成果在中国以及其他地方类似的溶剂使用中都可以复制。

<u>计量吸入器</u>

19. 开发计划署 2009 年业务计划中包含玻利维亚和黎巴嫩的计量吸入器过渡战略，费用分别为 32,000 美元。事实上，执行委员会曾经决定在第五十六次会议之后不再接受任何计量吸入器投资项目（第 54/5 号决定，(d)段）。但是，开发计划署曾指出，尽管其业务计划中取消了几项过渡战略提案，但玻利维亚和黎巴嫩的过渡战略可以除外，因为两国早在委员会决定在最终淘汰管理计划中包含计量吸入器之前就已经提交了各自的最终淘汰管理计划/国家计划。

<u>消耗臭氧层物质处置</u>

20. 在第 XX/7 号决定之外，开发计划署 2009 年业务计划中还提议将实施几个消耗臭氧层物质处置示范项目。这些项目的主要目的是证实发达国家在销毁消耗臭氧层物质方面的实践对于第 5 条国家的适用性。开发计划署也试图对实用性和成本效益方面进行验证。在这个过程中开发计划署提出，应该向第 5 条国家证实，制冷设备的提前报废会引发另一需

求，即对设备库中的消耗臭氧层物质进行适当管理。示范项目涵盖了收集、运输、销毁的各个范畴，没有任何一项是仅针对其中一个方面的。

21. 关于开发计划署示范项目所在国家的选择标准，开发计划署称，考虑到缔约国会议关于只批准此类示范项目的“个别项目”的决定，所以限制了国家的数量。因此，对于消耗臭氧层物质废物管理方面取得进展从而有销毁需求的国家，开发计划署给予了关注。此外，开发计划署还考虑了利用其他资金来源的可能性（如开发计划署针对能源效率的全球环境基金）。

22. 作为消耗臭氧层物质处置吨数估算的依据，开发计划署根据经验和事实进行了推测，考虑了当前可处置的消耗臭氧层物质的比例。开发计划署并未将 ICF 研究结果用作吨数估算的依据，因为它认为其报告已经过时，并指出设备的提前报废应该计作不必要的消耗臭氧层物质。由于目前阶段缺少确定具体金额的方法，开发计划署假定金额为 10 美元/千克。对其消耗臭氧层物质处置活动，开发计划署 2009 年仅请求项目编制，并指出它会根据今年的工作进展在 2010 年纳入更多的具体数字。

23. 秘书处在有些情况下认为，消耗臭氧层物质处置活动的示范工作还不够明确，不足以将这些项目和综合性投资方案区分开来。在给秘书处的回复中开发计划署指出，所有相关的国家都已启动这一方向的具体活动，并按表 2 所示将其归类为示范项目。表 2 也列出了项目基本原理方面的信息以及在业务计划中的项目总成本，这些是秘书处所追加的内容。

表 2

消耗臭氧层物质处置活动

国家	示范的目的	其他信息	总成本（美元）	消耗臭氧层物质销毁的数量（ODP 吨）	含代理费的项目编制费用（美元）
玻利维亚	提供低消费量国家受污染的各类氟氯化碳收集方面的数据和经验，包括成本、物流、处置的可选方法，以及低消费量国家在消耗臭氧层物质库管理方面的完善战略。	开发计划署指出，计量库中消耗臭氧层物质量很困难，因为单独的数量很微小，而且存储是分散的。	376,250	37.6	32,250
巴西	报废现有制冷机以节约能源的实用性，适当处置的可持续业务模式，潜在的融资伙伴，以及优化储存及运输成本的可选方	项目将基于氟氯化碳回收再利用相关的设备的收集和拆卸解决方案方面已经取得的明显进步。	752,500	75.3	43,000

国家	示范的目的	其他信息	总成本（美元）	消耗臭氧层物质销毁的数量（ODP吨）	含代理费的项目编制费用（美元）
	案。寻找第 5 条国家的成功设备替换方案。这对于非低消费量国家是一个综合性方案。				
中国	未提供。	存量估算的范围很宽，在 25,000 至 500,000 公吨之间，且现有氟氯化碳电器设备中很大一部分需要更换，从而可能会产生大量的可处置的氟氯化碳。	1,505,000	150.5	0
哥伦比亚	分析大型操作的各个方面，包括氟氯化碳库存物流和最终处置的各种方案和成本，以及帮助费用补偿的立法措施和财务机制。	存在收集并销毁 300 万台制冷机的可能性。哥伦比亚可销毁的消耗臭氧层物质存量达 19,314 公吨，其中包括 CFC11、CFC12、哈龙 1301、HCFC-22、氟氯化碳/氟氯烃混合物。	752,500	75.3	43,000
古巴	寻找氟氯化碳销毁的技术方案、融资办法，并建立回收氟氯化碳的必要合作关系。	该国已为某一旨在替换 300 万制冷机的节能项目提供资助。通过这个基金的回收和再利用项目，100 吨消耗臭氧层物质已被回收。	286,058	28.6	32,250
埃及	与核定的全球环境基金项目挂钩，并提供奖励评估的方式，建立电器拆卸回收管理系统，从而使消耗臭氧层物质的适当的收集和最终处置成为可能。	开发计划署正在实施一个 540 万美元的项目，由全球环境基金支持，其目的是清除实现能源效率目标途中的各种障碍，其中包括制冷机。其国家臭氧机构估计的消耗臭氧层物质存量为 2,000 公吨。	752,500	75.3	43,000
加纳	与拟议的一个全球环境基金项目挂钩，寻求报废制冷机以提高能源效率的办法。	2008 年 9 月，开发计划署将该全球环境基金项目的建议书提交给全球环境基金，其标题为“提高	752,500	75.3	32,250

国家	示范的目的	其他信息	总成本（美元）	消耗臭氧层物质销毁的数量（ODP吨）	含代理费的项目编制费用（美元）
		电器的能源效率，促进加纳制冷电器市场的转型”，金额为 395 万美元，其中 195 万美元来自全球环境基金。			
印度	这是非低消费量国家制冷机及工业/商业设备回收方面的一个综合性方案。内容包括调查、氟氯化碳管理活动、技术论证（待定）、与多边环境协定合作的探索、资金来源、政策和监管干预提议，以及风险管理机制等。	存量估计的范围很广，在 25,000 至 500,000 公吨之间。	752,500	75.3	64,500
乌拉圭	提供低消费量国家受污染的各类氟氯化碳收集方面的数据和经验，包括成本、物流、处置的可选方法，以及低消费量国家在消耗臭氧层物质库管理方面的完善战略。	开发计划署指出，计量库中消耗臭氧层物质量很困难，因为单独的数量很微小，而且存储是分散的。	376,250	37.6	32,250

<u>动员资金以实现气候协同效益</u>

24. 开发计划署在其 2009 年业务计划中提出了动员资金方面的几项措施，其中包括：

- 在以下范围内寻找需要联合融资的增量气候效应的潜在模范项目，并归档：
  - 一个由多边基金供资的项目，其增量气候效益的成本>25 美元/吨节约 CO_2；
  - 一个第 5 条国家项目，其氟氯烃淘汰并非由多边基金供资，但可从增量气候效益的收益中获得资金；
  - 一个能源效率项目（如全球环境基金），其消耗臭氧层物质的报废管理可带来臭氧增加和气候效益；
  - 一个独立的库管理/消耗臭氧层物质销毁项目，可基于某一现有方法；
- 持续关注符合上述任何项目类型的用于消耗臭氧层物质销毁的新方法项目；

- 如适当，以环境无害的方式针对具体的项目类型对新方式进行试运行；
- 评估不同交易方式的风险、经济责任和成本效益；
- 推广业务计划并寻找潜在买家；
- 在研究发现和潜在误区方面与不同的多边基金机构进行协调并对其汇报。

业绩指标

25. 下文表 3 列有根据第 41/93 号、第 47/51 号和第 49/4(d)号决定制订的开发计划署业绩指标概要。

表 3

业绩指标

项目	2009 年目标
已核准的多年期协定年度方案数量与所规划的年度方案数量（新方案加上正在执行的多年期协定付款）	40
已核准的单独项目/活动（投资项目、制冷剂管理计划、哈龙库、技术援助、体制建设）数量与规划的单独项目/活动数量	22
为核准的多年期年度付款申请而开展的进度标志活动/已达到的消耗臭氧层物质水平与规划的进度标志活动/消耗臭氧层物质水平	36
各个项目的消耗臭氧层物质淘汰情况与根据进度报告规划的消耗臭氧层物质淘汰	633
（根据有关投资项目的第 28/2 号决定）完成的项目和为非投资项目界定的项目与进度报告中规划的项目	98
已完成的政策/管理援助的数目与规划的此种援助的数目	1/1 (100%)
财务工作完成速度与按进度报告完成日期所需的速度	准时
及时提交项目完成报告与议定的提交报告时间	准时
除另有协定外，提交进度报告与答复的及时性	准时

26. 对于已核准的单独项目数量与规划的单独项目数量，开发计划署的目标为 22 个。但是，开发计划署业务计划数据库却显示 2009 年需要提交 25 个单独项目，包括 8 个体制建设项目、3 个技术援助项目、13 个示范项目和 1 个逐步淘汰审核项目。出于和其他机构保持一致性的考虑，开发计划署已核准的单独项目数量目标应为 25 个。

27. 2009 年开发计划署政策援助国家的目标数为 1 个（孟加拉国）。

建议

28. 谨建议执行委员会考虑：

(a) 核可 UNEP/OzL.Pro/ExCom/57/9 号文件所载开发计划署 2009-2011 年的业务计划，并同时说明，核可该业务计划既不表示核准其中载列的项目，也不表示核准供资水平，而且可根据对以下活动的审议结果对核定方案做出任何修改：

(一) 氟氯烃泡沫塑料示范项目；

(二) 氟氯烃制冷示范项目；

(三) 氟氯烃溶剂示范项目；

(四) 计量吸入器过渡战略；

(五) 消耗臭氧层物质处置活动；

(六) 动员资金以实现气候协同效益。

(b) 核准 UNEP/OzL.Pro/ExCom/57/9 号文件所载表 3 所列的开发计划署业绩指标，同时把核准的单独项目数的目标设定为 25。

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	Chemic	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	
17				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
8				1,172.080

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
36				6,069.824

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 58th ExCom	413;875	Evaluation in non-critical thermal applications
Hydrocarbons	RPF, ISF	EGY IND	To 58th ExCom To 58th ExCom	462;250 376,250	Evaluation of cost saving options Pre-blended formulations for rigid foam SMEs
Liquid HFCs	RPF ISF FPF	ARG	To 58th 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 58th ExCom	498;800	Validation of a commercial available product
HFO-1234ze	XPS	TUR	To 58th 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 our 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.

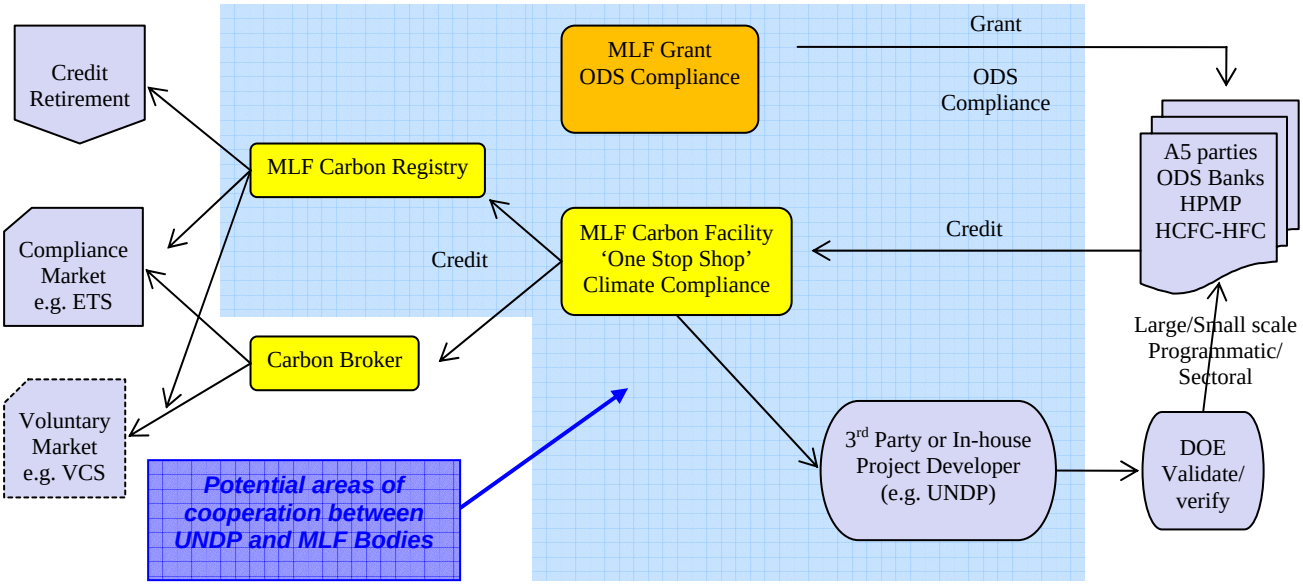
Coordination with the Multilateral Fund and its Secretariat

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 CO_2 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 four 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 our 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 meetings 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	Rermark
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

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

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.

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.