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执行蒙特利尔议定书
多边基金执行委员会
第五十四次会议
2008 年 4 月 7 日至 11 日，蒙特利尔

关于编制包括氟氯烃调查的氟氯烃淘汰管理计划的准则草案（第 53/37 (h)号决定）

导言

1. 作为对第 53/37 号决定的回应，秘书处与执行机构合作编拟了本文件，其中载有编制氟氯烃淘汰管理计划的准则草案。第 53/37 号决定要求秘书处“与各执行机构一道审查关于国家方案和行业计划的现行准则，并向第五十四次会议提出关于编制氟氯烃淘汰管理计划的准则草案，其中列入关于氟氯烃的调查，同时顾及执行委员会成员在第五十三次会议期间就这些准则所做的评论和所表示的意见和提交第五十四次会议的呈件。” 第 53/37 号决定进一步要求“执行委员会尽全力在第五十四次会议上核准这些准则。” 在第五十四次会议上最后确定氟氯烃淘汰管理计划暂行准则，将能够让第五十五次会议核准为编制国家计划提供资金。

2. 秘书处在编制本文件时还考虑到了第 53/37 号决定的其他方面，特别是秘书处将考虑第(c)分段和第(d)分段中多边基金关于氟氯烃的现有政策和准则的法律前提及推测。缔约方第十九次会议的第 XIX/6 号决定也在考虑之中（附件一）。

3. 本文件在编制时已考虑了执行委员会成员及执行机构的评论和意见，并将这些评论和意见按照相关政策问题加以组织,每一议题都经过了秘书处的审议并附有秘书处的建议。在第五十三次会议后，秘书处收到了澳大利亚/加拿大、中国、捷克共和国、墨西哥、德国、日本、瑞典、美利坚合众国和乌拉圭的评论和意见。执行委员会的评论附于附件二。

4. 本文件由三部分组成。第一部分述及通过氟氯烃淘汰管理计划的制订准则的时限和一般做法。第二部分是与准则制订有关的政策问题。第三部分概述了在编制氟氯烃淘汰管理计划的准则草案的数据收集、编制、磋商和最后确定方面应开展的具体活动。

第一部分：制订氟氯烃淘汰管理计划准则的时限和做法

时限

5. 在第五十三次会议讨论期间提出的意见表明，第 5 条国家有必要尽快采取行动制订国家氟氯烃淘汰管理计划并开始（如果可能，加速）淘汰氟氯烃，以便在 2013 年实现冻结。

6. 为了正确认识确保各国分别在 2013 年和 2015 年实现氟氯烃的冻结和淘汰而需开展的淘汰工作的范围，秘书处审查了第 7 条以及国家方案的氟氯烃数据。氟氯烃的消费量主要由三种物质（HCFC 141b、142b 和 22）构成。数据还表明，大部分的氟氯烃消费量集中在七个第 5 条国家（那些不寻求多边基金资助的国家除外），[1]各国的消费量都在 360 ODP 吨以上。此外，第 7 条数据还显示，过去 5 年里增长率一直在 4% 至 34%之间波动，这一时期的年平均增长率为 18%。因此，很难评估第 5 条国家消费量的增长速度，特别是因为

[1] 大韩民国、新加坡和阿拉伯联合酋长国。

各缔约方已于 2007 年 9 月同意加强管制措施。尽管为制订预测增长率的方法还需要做大量工作，但基于其经验和所作调查，各执行机构表示增长率在 8％至 10％之间。附件三提供了根据第 7 条报告的 2001 年至 2006 年之间的消费和生产数据，同时也包括了为了演示的目的以年平均增长率为 10％为假定作出的预测。利用这些数据与计划的 2012 年消费量和基准之间的差距指出实现冻结所需要的假定淘汰量。

7. 假定从 2006 年的实际消费量到 2013 年实现冻结期间的平均年增长率为 10%，[2]则符合基金支助条件的第 5 条国家需要在 2012 年淘汰额外的 9,600 ODP 吨氟氯烃消费量以实现冻结。这相当于约 137,000 公吨的数量，也正是遵守首要管制措施所需要的淘汰量。至于生产行业，需要淘汰约 10,000 ODP 吨，即大约 153,000 公吨。

8. 假设多边基金淘汰项目的平均执行期保持在 35 个月的历史水平，那么有必要在 2010 年初核准各项干预，以便使各国能够在 2013 年实现冻结。此外，由于根据基金的要求编制国家方案、制冷剂管理计划和/或最终淘汰管理计划通常需要 15 个月，因此附件三强调了考虑在近期核准氟氯烃淘汰管理计划准则的必要性，以便使这些计划能够尽快制订。及时地采取行动将有助于确保以高成本-效益的方式实现 2013 年冻结和 2015 年 10%的削减。这样还将促进已经获得资助的维修行业中淘汰活动的贡献。

阶段性做法

9. 目前，多种氟氯烃用途有一组非消耗臭氧潜能值替代技术可供使用。这些替代技术在可用性、技术成熟性、成本效益、能效和其他环境因素等重要方面有所不同。因此，有些第 5 条国家在未来技术方面面临着极大的制约。鉴于这些因素并考虑到根据第 XIX/6 号决定做出及时回应的必要性，人们认为在氟氯烃淘汰管理计划问题上阶段性做法是最佳的做法。这将由两个部分组成，即制订整个淘汰进程的总体方案意见以及制订为实现初步冻结和 10%削减为目标的有具体氟氯烃淘汰活动的综合计划。

10. 从广泛的角度讲，各国可制订一个长期战略，提供整体指导并包括一个国家为实现氟氯烃淘汰而希望采取的重点行动清单。这种做法将在以后的各阶段加以概述，这样将为在基金和国家一级解决余留的政策问题提供充分的准备时间。在这方面，考虑到技术发展过程中存在的不确定性，长期战略将包括一些备选办法，并且特别根据替代品和替代技术的发展进行定期审查和更新。

11. 其次，在这一总体战略中，各国将详细说明在氟氯烃淘汰管理计划第一阶段的具体做法，其中应明确而全面地述及它们计划如何在 2013 年和 2015 年实现初步的氟氯烃管制。第一阶段将确定具体的活动和/或项目以及可能的话所有指示性费用，同时考虑到今后一旦就氟氯烃投资项目增量成本的准则达成一致，则需要对这些成本做出调整。

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[2] 根据 2002－2006 年期间的第 7 条数据中报告的 18％的年平均增长率，第 5 条国家将需要在 2012 年淘汰 23,315 ODP 吨的消费和 24,178 ODP 吨的生产才能实现冻结。

12. 关于围绕氟氯烃淘汰供资的所有相关费用因素分析的初步文件（UNEP/OzL.Pro/ExCom/54/54）提及了当前氟氯烃替代技术的状况。文件简要地指出，目前有一些可用技术能够在短期内替代特定类别的氟氯烃用途，这些技术有着各种各样的环境影响（包括在气候变化方面），而其他技术在全球范围内的可用性或适用性目前还不足，但在不远的将来有可能可用或适用。在氟氯烃淘汰管理计划的编制过程中，在制订氟氯烃淘汰管理计划第一阶段时考虑到最佳成本效益和可持续的氟氯烃淘汰技术以及各种潜在的技术备选方法是至关重要的。以阶段性做法来执行氟氯烃淘汰管理计划的益处是能够在近期在已经具备了可用的、成本效益高的替代技术的领域限制氟氯烃使用的增长和消除氟氯烃的使用。

13. 鉴于某些替代技术已相对成熟并具备了一些经验，短期内可在一些已具有了经事实证明的替代技术的次行业开展淘汰活动。虽然对各个国家以及多边基金今后的活动而言，利用一些试点项目来检测这些技术并积累经验或许是有益的，但是试点项目可能平均需要35 个月才能完成的现实情况不应拖延核准那些涉及已证实技术的计划。由于试行项目有助于第 5 条国家减少氟氯烃的消费以达到冻结水平，这些项目应作为氟氯烃淘汰管理计划中总体和短期战略的一部分提交。氟氯烃淘汰管理计划的第二阶段将解决满足冻结和 10%削减要求以外的氟氯烃消费量/生产量。预计某些国家可能愿意在管制措施要求之前淘汰氟氯烃，并决定在第二阶段解决全部剩余消费量。

14. 在生产行业，淘汰活动的重点在于其用途成为前期淘汰目标的首个消耗臭氧层物质实例。在消费行业，可能将淘汰生产作为目标，并将重点放在消耗臭氧潜能值最高的氟氯烃。根据氟氯化碳淘汰的经验，在第五十三次会议上建议氟氯烃生产的淘汰应与消费淘汰平行地加以解决合。HCFC-22 生产的淘汰对制造和维修行业所需的 HCFC-22 消费有着直接的影响，因此消费量的及时淘汰也是很重要的。据此，氟氯烃淘汰管理计划还应提供信息说明设施、建立设施的日期以及具备此类设施的国家因此而拥有的接收已核实排放削减单位（CERs）的资格，以便根据清洁发展机制焚化 HFC-23。

15. 对于维修和制造行业均在使用氟氯烃的国家，可将额外的以行业执行情况为基础的计划作为氟氯烃淘汰管理计划第二阶段或后续阶段的一部分并建立在技术进步的基础上。这对于在许多行业都有很高氟氯烃消费量的国家而言尤其重要。此外，已在只有维修行业的国家内实行的那样的初步性措施也是需要的。在这方面，据信在那些在维修业以外行业使用氟氯烃的国家，是否需要最后的阶段取决于成本效益好和环境上可以接受的技术的发展情况。然而，这类国家可能存在愿意根据今后本国氟氯烃使用的情况和能否得到愿意接受的替代品接受加快氟氯烃的淘汰。另一方面，某些国家在氟氯烃淘汰管理计划的第一阶段可能仅仅会解决一个具体的行业或次级行业。

16. 对于仅在维修行业有氟氯烃消费的三分之二的第 5 条国家来说，第一阶段可能采取了与制冷剂管理计划、最终淘汰管理计划和国家淘汰计划相类似的干预，包括使现有的管制框架适应氟氯烃的问题，替代/改进基于氟氯烃的设备，额外的关税及制冷技师的培训和认证，替代/改进设备的鼓励方案，以及对项目管理单位/能力建设的要求。如果认为对实现履约很有必要，则第一阶段还可考虑实施初期禁令（部分或全面），禁止进口和/或销售新的和/或二手的氟氯烃制冷和空调设备。凡必要时，溶剂、气雾剂和灭火设备（经济上可

靠且技术上可行的情况下）也应予以解决。第一阶段还应考虑根据淘汰氟氯化碳期间所积累的经验制订提高认识和与有关利益方进行协商的全面方式。

17. 在一个国家准备全面淘汰氟氯烃时，它应具备两种备选办法，其一是在综合的第二阶段核准进程中完成全面淘汰基准数量剩余的 90%，其二是计划以最符合其特殊情况及其有效缩减和监测氟氯烃生产量和消费量削减能力的方式分多个阶段完成全面淘汰。这表现为一个国家愿意承诺在《蒙特利尔议定书》规定的日期前加速氟氯烃的淘汰，这与许多国家在淘汰附件 A 和附件 B 化学品时的表现相似。

第二部分：与氟氯烃淘汰管理计划有关的政策问题摘要

18. 这一部分述及与氟氯烃淘汰管理计划有关的政策问题中与准则制订相关的问题。

相关准则的审查和氟氯烃淘汰管理计划的类型分类

19. 执行委员会第三次会议通过的国家方案准则（附件三）可作为基础适用于氟氯烃淘汰管理计划的制订。一份完整的国家方案包括消耗臭氧层物质消费量和生产量的综合概览、该国促进淘汰的立法和机构基础设施、综合战略以及行动计划，包括一份潜在项目的清单和该国实现所要求淘汰的估算成本。但是，执行委员会核准整个国家方案及其所有内容并不意味着得到了该国实现其淘汰目标的承诺，也不表示国家方案中建议的用于确定活动在资金已被核准，或者该国将保持报告的消费量。相反，对于诸如国家淘汰计划、溶剂淘汰计划、制冷剂管理计划和最终淘汰管理计划等后续淘汰计划而言，执行委员会的核准与报告（和商定）的消费量、已获担保的资金以及国家借以承诺实现具体淘汰义务的目标组的执行情况相联系。

20. 国家淘汰计划和溶剂淘汰计划的格式和内容及其相应的协定还提供了先例，第 5 条国家在制订制造和维修行业的氟氯烃淘汰管理计划可以加以利用。在这方面，国家淘汰计划和溶剂淘汰计划所载的执行委员会与受援国之间的协定是实现消费量/生产量年度削减目标的国家承诺（第 38/65 号和第 46/37 号决定）的基础。实现这些目标为后续各期资金的拨付提供了基础，或者允许在未完成目标的情况下实施惩罚。

21. 上文第 16 段概述了为实现氟氯烃淘汰而对仅有维修需求的国家的可能干预。对制冷剂管理计划和制冷剂管理计划增订（第 31/48 号决定）的准则包含了各国到 2007 年底前实现冻结和削减 85%的氟氯化碳的承诺。低消费量国家在涉及制冷和空调行业氟氯化碳淘汰的制冷剂管理计划和最终淘汰管理计划方面得到了资助。因此，最终淘汰管理计划准则（第 45/54 号决定）的内容可能同样与氟氯烃淘汰管理计划的制订有关。

法律和监管框架

22. 在制订氟氯烃淘汰管理计划和帮助第 5 条和非第 5 条国家遵守《议定书》的过程中，各国存在适当的法律和监管框架是一个关键的方面。《蒙特利尔修正案》的缔约方的确有

负有义务，该修正案第 4 条 B 款规定各国应建立同时也应包括氟氯烃在内的消耗臭氧层物质许可证制度。只有实施了这些许可证制度，才能实现有效的管制，而许可证制度应将对于氟氯烃和使用氟氯烃的设备的进口的管制包括在内。任何未将氟氯烃包括在其许可证制度内的第 5 条缔约方，都必须将这一问题作为紧急问题加以处理，以确保实现 2013 年的冻结和后续的管制措施。建立许可证制度还应当包括一项全面的监测和管制制度。

23. 应鼓励各国在制订全面的氟氯烃淘汰管理计划过程中纳入或者修订其现有的许可证制度，以适应第十四次缔约方会议通过的调整内容。由于只有在对现行法规进行增订以便将氟氯烃包括在内，才有可能为完整的氟氯烃淘汰管理计划执行工作供资，执行委员会可能会根据现行的最终淘汰管理计划准则，要求将建立适当的氟氯烃许可证制度作为批准氟氯烃淘汰管理计划执行工作供资的一项条件。

累积持续削减消费量的起点

24. 根据 2001 年 12 月第三十五次会议的氟氯化碳消费量淘汰战略规划（第 35/57 号决定）[3]，即氟氯化碳基准建立两年后，执行委员会确立了累积持续削减消费量起点的概念。这一决定规定，每一国家可选择各自的基准或最新消费量作为衡量未来削减消费量的累积水平，因此该决定规定了一个可获得供资的氟氯化碳消费量保持水平。根据第 XIX/6 号决定，《蒙特利尔议定书》规定将在 2011 年根据 2009 年和 2010 年平均国家消费量确定氟氯烃基准。

25. 对于只在维修行业中消费氟氯化碳的第 5 条国家（低消费量国家）来说，为了履行其在制冷剂管理计划中做出的承诺，无论这些国家选择的累积持续消费量削减水平是哪一种，它们都需要实现 2005 年和 2007 年的减少消费量步骤。本文件假设了一些新的国家类别，这些国家与低消费量国家和非低消费量国家不同，它们只在维修行业中有消费需求，或者在维修和制造用途待业中有消费需求。因此，在制订氟氯物淘汰管理计划的过程中，将更多地根据具体的氟氯烃用途来确定必要介入的类型，而不是单纯考虑消费量。由于预计只在维修行业中有消费需求的国家可能难以实现冻结，因此，注重绩效的氟氯烃淘汰管理计划制度可能要依靠氟氯烃淘汰管理计划活动的完成情况，来确定年度付款的发放。这还也会有助于确保维修所使用的氟氯烃在基准期后不会出现无限制的增长。

26. 对于同时拥有制造和维修业的第 5 条国家，单个行业协定或一项国家淘汰计划也包含根据淘汰时间表减少消费量和（或）生产量的承诺，该时间表由执行委员会与各国商定后批准，这一时间表要么与《蒙特利尔议定书》所规定的管制措施一致，要么较此类管制措施朝前。为确保持续的减少，行业协定和注重绩效的国家淘汰计划需要确立一个起点，并在该起点的基础上减少未来的消费量。利用类似的方法，提交拥有制造业国家的氟氯烃

[3] 关于为确定今后氟氯化碳减少的起点而作出的决定，为增订国家方案核准了与氟氯化碳有关的补充资金，而体制建设的资金也增加了 30%，以期解决各国在落实氟氯化碳淘汰的面向国家的做法方面日益增加的需要。

淘汰管理计划供核准，其时间或可在 2011 年的基准消费量确定后，或可确定一个合并消费量持续减少起点，而这一起点可以是氟氯烃淘汰管理计划获得批准前的最新氟氯烃消费量，或者是提出了计算了氟氯烃具体淘汰吨数的第一个项目之后。

氟氯烃淘汰管理计划中考虑的其他领域

27. 正如上文提及的，现行的指导方针和国家方案格式、制冷剂管理计划/最终淘汰管理计划、注重绩效的国家淘汰计划，以及注重物质的国家淘汰计划，都有助于氟氯烃淘汰管理计划指导方针的制订工作。然而，还有其他一些与氟氯烃淘汰有关的问题应予以考虑，这些问题目前并未列入现行的执行委员会指导方针，或者执行委员会尚未就相关的政策问题做出决议。下面几段将对这些其他问题进行讨论。

成本考虑和第一阶段行动计划

28. 执行委员会将在第五十四次会议上审议一份关于资助氟氯烃化合物淘汰相关成本考虑的初步文件（UNEP/OzL.Pro/ExCom/54/54）。尽管执行委员会关于成本的最终准则可能尚无法在第五十四次会议上最终完成，但第一阶段氟氯烃淘汰管理计划的制订工作应包括提议中各项活动有关成本的估计数值，以便提前确定执行以第一阶段为基础的绩效协定所需要的资金。在第一阶段的各项计划中，活动的成本不仅应考虑现行的已批准氟氯化碳和其他消耗臭氧层物质指导方针，而且应显示总成本和所有供资来源，其中包括但不限于来自多边基金的资源。对于尚未从氟氯化碳转换至氟氯烃的现有氟氯烃消耗企业提供信息，还应向这些信息提供信息。随着氟氯烃准则拟定工作的推进，正在制订的氟氯烃淘汰管理计划应考虑委员会的最新准则。氟氯烃淘汰管理计划还应包括一种或多种备用的成本预测，但前提是对这些预测中使用的假定及其组成成本的细节有足够的了解，以便进行彻底的审查。

有关气候变化的惠益和技术

29. 第五十三次会议注意到，氟氯烃淘汰管理计划应在考虑替代品时抓住第 XIX/6 号决定中有关满足造福于气候的精神。因此，尽管有关成本效率阀值的现行准则是根据消耗臭氧潜能值确定的，但氟氯烃淘汰管理计划还应考虑在使用全球变暖潜势较低的替代品时，尽可能发挥其惠益潜力，充分教育能源效率、设备和气候条件。

30. 在进一步的书面评论中，一些成员建议，对于那些不鼓励使用全球变暖潜势较高氟氯烃替代物的转换政策也应予以审议。有些成员提议，应查明基金从现在到基准（于 2010 年底）建立之前可以支持的战略活动。这些活动可能包括但不限于无全球变暖潜势或全球变暖潜势较低的演示项目、有效的节能措施、在氟氯烃化合物行业中建立必要的管理、监测和宣传框架源，以及在相关行业中继续进行补充性的培训和能力建设活动。关于成本考虑的文件涉及了全球变暖潜势中与提议的技术备用方案和潜在共同供资有关的一些方面。为了确保以公平和最惠的条件向第 5 条国家转移对环境安全的替代物和相关的技术，在技术的选择过程中还应考虑第 XIX/6 号决议的第 15 段。

供资来源和财政激励

31. 第 53/37 号决定（i）段涉及的问题之一是，对财政激励和共同供资的机遇进行审议的必要性，这些问题关系到氟氯烃淘汰工作是否能够取得第 XIX/6 号决定 11（b）段提到的惠益。该段谈到，“能够将包括气候在内的环境影响降至最低的替代品和备用器，考虑到了全球变暖潜势、能源使用和其他相关因素，如健康、安全和经济考虑”。

32. 在过去，执行委员会曾允许受益企业和其他金融机构提供的赠款资金用于共同供资，通过这种方式使基金的资源变成种子资金。最近，执行委员会批准了一些冷风机演示项目，通过全球环境基金等其他供资来源，或与气候变化有关的新基金，以赠款形式或从其他资源向节能活动提供的基金资源，实现共同供资。向这些演示项目分配的基金已发挥了种子资金的作用，让各国能够在取得其他非多边基金来源的供资方面积累经验。

33. 此外，已经制订了其他形式的鼓励方案，特别是在最终用户行业，并将其作为制冷剂管理计划和最终淘汰管理计划的一部分。因此，氟氯烃淘汰管理计划还应涉及在何种程度上与淘汰氟氯烃的消耗臭氧潜能值价值有关的利益可用通过财政鼓励和共同供资加以解决，以及如何执行此类方案。

机构安排

34. 第 53/37 号决定第（e）段和第（f）段规定：

> “应将第 5 条国家在多边基金协助下建立的淘汰消耗臭氧层物质而不是淘汰氟氯烃的机构和能力酌情用于节省淘汰氟氯烃的费用；
>
> 多边基金将提供稳定和足够的援助以保证淘汰氟氯烃所需的机构和能力得以持续保持。”

35. 在基金设立之初，大部分第 5 条国家已设立了不同的团体来支持消耗臭氧层物质的淘汰，包括制冷技师协会，并将此作为能力建设的一部分和对国家臭氧机构的补充。应审查这些团体存在的行业，它们和国家臭氧机构的作用和职责，以及它们如何为淘汰氟氯烃做出贡献，氟氯烃淘汰管理计划还应包括开展工作的方式。此外，在认为对淘汰氟氯烃而言必要时，多边基金应提供稳定和足够的援助以保证淘汰氟氯烃所需的机构（如国家臭氧机构）和能力得以持续保持。这一问题将在一份预计提交第五十五次会议的文件中予以考虑。

第三部分：氟氯烃淘汰管理计划的暂定格式

36. 对于各国制订总体国家战略以执行受控物质，如氟氯烃，淘汰的必要性有一个全面的认识。同时，还有对氟氯烃较长的履约期限的认识，而编制最后计划可能还为时过早。在制订氟氯烃淘汰管理计划时，各国和各机构应考虑到目标是拟定一份文件，以便为相关

的第 5 条国家实现履约提供总体战略（最高和初步目标），并确定实现 2013 年和 2015 年管制措施所必须采取的具体行动。鼓励各国依照上文第 12 段至第 22 段来考虑氟氯烃淘汰管理的阶段性做法。

37. 认识到各国的情况多种多样，而且其需求也各不相同，提出以下指示性纲要的目的是提供制订国家氟氯烃淘汰管理计划时应当遵循的一般原则和程序。指示性纲要还试图为这些计划的编制规定标准程序，同时留有足够的空间以便各国和各机构能够扩展其计划并使之适应其特殊需求。

氟氯烃淘汰管理计划的指示性纲要和内容

一般资料

38. 本部分应包括一般资料，如国家名称、国家分类（例如，仅在维修行业使用氟氯烃的国家、在维修和制造行业均使用氟氯烃的国家）；详细说明计划提议的各项措施所涵盖的受控物质、提案涉及的行业和期限。它还应包括以下资料：

(a) 国家背景概述；

(b) 到目前为止在氟氯化碳淘汰方面所开展活动的简要审查，重点是取得的经验教训及如何将其运用于氟氯烃的淘汰；

(c) 概述《蒙特利尔议定书》及其修正案，特别是哥本哈根、北京和蒙特利尔修正案的批准的简要资料，如有必要还应纳入为批准而确定的步骤/行动计划；以及

(d) 多边基金为氟氯化碳及其他物质履约提供经费的项目审查概述，包括适用于氟氯烃的制冷剂管理计划、最终淘汰管理计划和/或国家管理计划的实施情况；

现有政策/立法/条例和体制框架说明

39. 必须要提供背景资料，说明国家现行的各项消耗臭氧层物质条例、现有许可证制度的范围，以及是否制订了具体条例以规定氟氯烃或基于氟氯烃设备的进出口问题。这一部分需要的基本资料包括：

(a) 已实施的消耗臭氧层物质基本立法和现有许可证制度的说明（特别包括，其如何运作、进出口所需的许可证、进出口商登记、配额制度）；

(b) 如有与氟氯烃相关的政策，则提供资料说明现在如何实施这些政策（例如，需要进口商登记和进出口许可证，但未设定配额）；

(c) 利益攸关方参与政策和条例制度的说明。例如，这一部分应包括何时考虑实施诸如设备禁令等政策干预。在这方面，应当指出需要进行协商以确保各利益攸

关方的协定和大宗买进。若进行了协商，还应对其加以说明；

(d) 关于目前基于受控消耗臭氧层物质的设备禁令和有关氟氯烃设备条例的资料，其中应说明禁令如何运作，或如何能运作以及执行的时间框架；

(e) 为落实《议定书》加速淘汰氟氯烃的计划而采取的其他政府措施的说明；以及

(f) 所有已被氟氯烃替代的多边基金氟氯化碳项目清单，包括项目现状和详细的企业联系方式。

数据收集和调查

40. 第 53/37 号决定第（h）段提到了“……列入氟氯烃调查的氟氯烃管理计划……”。在编制氟氯烃淘汰管理计划时，需收集数据和资料以提供氟氯烃行业的整体情况。可以制订一个框架，以中央数据库的方式储存所收集到的有关氟氯烃的数据，该数据库可由国家臭氧机构负责维护，并将其作一项工具来有效管理为氟氯烃淘汰管理计划而收集的资料。

41. 在开展调查时，应说明收集和证实数据的方法，包括所涉机构的名称和数据来源。调查应尽可能全面，并应遵循订货、进口至该国，再到经销商、消费者（如适用）和制造商这一消耗臭氧层物质的供应链。数据来源和参考可能包括但不限于海关、行业协会、行业的使用数据、企业调查和压缩机制造商的数据。为避免重复计算，不应向已获得此类供资的国家再提供经费。

42. 尽管很难收集以制造为目的而使用氟氯烃的各个设备或各氟氯烃使用者的资料，但鼓励各国提供基本资料，说明已知的使用氟氯烃的制造企业。应制订估算中小型企业需求的方法，这些企业所占的消费量份额较小。这应以作为国家方案报告程序一部分而收集的实际消费量资料为基础，并将成为制订氟氯烃淘汰管理计划的关键。在核准计划第一阶段或未来各个阶段的供资之前，需在工厂一级核实收集的消费量数据。此外，来自为实现氟氯化碳到氟氯烃的转换而核准的泡沫塑料项目的资料应提供重要信息。

43. 作为计划一部分而提交的数据应包括以下资料：

(a) 调查方法和方式的说明；

(b) 氟氯烃供应前景规划；

(i) 生产量（包括石化车间的确定和说明，以及新生产车间的说明）；

(ii) 进口量；

(iii) 出口量；

(iv) 作为混合物和原料的氟氯烃数量。

(c) 氟氯烃使用量/消费量

(i) 氟氯烃消费量；

(ii) 行业分配情况和行业说明；以及

(d) 关于已建氟氯烃基础设施的资料，特别要考虑多边基金已为向氟氯烃转变提供资金的工厂，或自行完成转变的工厂。这将有助于获得国家氟氯烃使用范围以及淘汰所必须的潜在干预类型的资料。

(e) 对氟氯烃使用的预测（指拟议的加快淘汰计划时间表，包括基准日期前后不受约束的需求）；

(f) 核实调查提供的数据；遵循执行委员会的现行准则；以及

(g) 氟氯烃替代品的可用性和价格。

实施氟氯烃淘汰的战略和计划

44. 氟氯烃淘汰管理计划应介绍实现完全淘汰氟氯烃目标所要遵循的总体战略。其中应包括对用以减少氟氯烃供应量的政策文件的讨论，如进口配额和价格管制，以及执行/加强短期替代品的国家计划、获得替代品供应的途径和计划与国家气候变化、化学品管理和能源政策之间的协调。还应涵盖为逐步减少氟氯烃需求而采取的各项措施（例如在完成制造业的转换的同时计划解决制冷维修行业的需求和制订有关含有氟氯烃商品的立法）。本部分还应明确了所有可以禁止或限制特定非氟氯烃替代品的国家立法。

45. 如上文第 12 至 22 段所述，可以根据阶段性做法来制订战略。为此，必须要详细说明第一阶段可能采取的直接干预措施，这些措施也是在 2013 年和 2015 年实现氟氯烃冻结和削减 10%所必需的。应尽最大可能纳入所需的全部供资数额。尽管本阶段对第二阶段及后续的各个阶段略有提及，但虑及各国的承诺和可能提供的资金将至多仅能满足第一阶段的供资时，如果计划能提供以后各阶段花费的一些成本计算将会非常有益。应纳入对此类计算的假设。

46. 战略应介绍根据国家实际需求和当前消费量状况制订的执行计划活动时间框架。还应纳入评估，说明在仅有极少投资但可能开展有目标的体制活动的情况下能直接削减多少氟氯烃消费量。

47. 对于制冷维修而言，提案应介绍降低对氟氯烃依赖的战略。战略应包含以下措施，如法律和经济鼓励和惩罚、培训、公共宣传活动、进口管制和其他行业的特有措施。还应纳入基于以往经验的回收和再循环举措，以期在考虑到以往经验的情况下建议具体的活动。

48. 执行委员会为国家臭氧机构的建立、国家立法和条例的制订、许可证制度及各类氟氯化碳的回收和再循环措施提供了援助。根据调查期间收集的结果，可能还应介绍如何利

用现有制度促进氟氯烃的淘汰，并应将这一信息作为全面淘汰计划的一部分纳入。这些计划还应载有一份相关的制冷剂管理计划、最终淘汰管理计划、国家淘汰计划或各国淘汰计划及多边基金其他项目和活动执行情况的审查摘要。应纳入其他行动/活动的说明和为解决氟氯烃问题而再次确定氟氯化碳国家淘汰计划/最终淘汰管理计划可能需要的估算成本。

49. 以下各项目为计划的具体部分及所应包含的内容提供了指示性准则：

(a) 计划活动的说明：

(i) 机构活动 － 包括工业行动；

(ii) 投资项目；以及

(iii) 能力建设 － 包括政策分析和审查以及必要的公共宣传活动。

(b) 包括拟议削减在内的执行时间表；

(c) 氟氯烃供需管理；

(d) 维修行业的具体活动；以及

(e) 无氟氯烃消费量的国家具体的能力建设活动。

成本计算

50. 考虑到某些政策问题仍未解决，第 34 段为如何进行成本审查提供了指导。必须指出的是如上所述，初步细算的成本预测值必须涵盖氟氯烃淘汰管理计划的第一阶段。

51. 正如在审查产业转换时适用的总体原则并依据历史惯例，应酌情提供关于所涉企业、行业/次行业数量、企业消耗臭氧层物质消费量和基准设备、安装日期、生产能力、生产量的数据。如果涉及制造行业，还应酌情以各个企业为对象审查向非第 5 条国家出口的数量及跨国公司的份额。氟氯烃淘汰管理计划应尽最大可能探索每个工业行业和转换所有可能的氟氯烃替代品，并提供成本对比。

52. 应该包含一个与共同供资相关的附加部分，查明于其他供资机制形成协同增效的机会。氟氯烃淘汰管理计划应包含一个部分，使各国和各有关的一个或多个执行机构能够就可能的资金动员提出其建议，以期提高多边基金供资的成本效益。

53. 关于制冷维修，提供的数据应该包含国家估算的工厂数量和分类情况（大、中、小、非正式）、针对各个类别的典型基线设备和教育、目前在制冷维修行业工作的技师的估算数量、各类别中每个工厂每年氟氯烃平均消费量的估计数、各类别的设备需求和正当理由，其中包括每年待回收的消耗臭氧层物质估算量以及其他相关细节。应为其他相关部门提供类似信息。

54. 其他非投资活动应考虑第 35/57 号决定的内容，尤其是在提高认识和培训方面，并且应将这些活动视为整体淘汰管理计划的组成部分。框架应该提供一种方法，通过重视氟氯烃利益攸关方（如工业协会）建立公众认识，以传播淘汰氟氯烃方面的信息。同时，在投资者、设备和建筑物所有者以及设备卖主中构建认识也是非常重要的。应该通过召开全国会议、开展培训讲习班、建立专用网站、开展利益攸关方咨询和发行技术出版物的方式鼓励提高公众认识。

包括监测和评价在内的项目协调和管理

55. 应说明执行氟氯烃淘汰管理计划的管理结构，尤其是如何执行第一阶段。最终促成关于最终淘汰管理计划的第 45/54 号决定的第 45/46 号文件附件八可作为项目管理单位总体职权范围的基础而加以利用。应该对政府机构、工业机构、学术机构和顾问的职责做出清晰的说明。计划执行管理的问责制尤为重要。因此，有必要指定一个管理机构须对其负责的政府实体，该实体还应负责管理结构各部分的职责、决策能力和报告职责。

56. 在氟氯烃淘汰提议的管理和执行过程中，还应讨论相关执行机构的参与度问题。如若必要，应在有多个机构运转的国家内指定一个牵头机构，并明确界定各个机构的作业和职责。

57. 应该明确说明对氟氯烃淘汰管理计划实施的财务和实质性监督。其中应包括参与机构的名称、具体作用和职责以及报告的类别和频率。

58. 还应有足够的机会确保计划执行指标的成果得到独立确认，包括包含在基金的监测与评价工作方案中的定期评价。计划还应该说明核查执行指标可能产生的费用。

生产行业

59. 第 53/37 号决定第（g）段指出的生产行业分类研究所需要的信息也应该视情况包含在氟氯烃淘汰管理计划之中。在提交氟氯烃淘汰管理计划之前应考虑到相关生产行业的所有决定，氟氯烃淘汰管理计划将包括一份相关生产行业的行业计划。

提交要求和期限

60. 氟氯烃淘汰管理计划的提交要求应当与制冷剂管理计划/最终淘汰管理计划/国家淘汰计划/各国淘汰计划相关协定和审议周期的要求类似。同样，氟氯烃淘汰管理计划应该应用制冷剂管理计划/最终淘汰管理计划/国家淘汰计划/各国淘汰计划以及个别项目的报告、核查、评价指南。应该在执行委员会会议前 14 周提交氟氯烃淘汰管理计划，以供基金秘书处审议。

建议

61. 谨建议执行委员会请：

(a) 各国在其总体战略框架内采取阶段性做法以执行氟氯烃淘汰管理计划；

(b) 各国依靠可用资源尽快利用现有准则制订详细的氟氯烃淘汰管理计划第一阶段，主要涉及各国如何实在 2013 年现冻结以及在 2015 年实现 10%的削减，同时估算相关费用并适用已制订的成本准则；

(c) 氟氯烃淘汰管理计划第一阶段及后续各个阶段的详细说明应包含以下内容：

(i) 仅在维修行业有消费量的国家应：

a) 根据第 31/48 和 35/57 号决定，按照制冷剂管理计划/制冷剂管理计划增订的现有准则进行编制；并且如适用，根据第 45/54 号决定编制最终淘汰管理计划；

b) 包含实现 2013 年和 2015 年氟氯烃管制措施的承诺，以及在完成氟氯烃淘汰管理计划活动的基础上的基于绩效的氟氯烃淘汰管理计划系统，以便每年向氟氯烃淘汰管理计划拨付资金；

(ii) 对于在制造行业使用氟氯烃的国家，氟氯烃淘汰管理计划应：

a) 制订并包含一项基于绩效的国家淘汰计划、一项或多项溶剂淘汰计划或基于物质的淘汰计划，计划应符合第 38/65 号决定，即将消耗水平减少到足以实现 2013 年和 2015 年氟氯烃管制措施，并为按照年度削减目标累积削减提供起始点；

(d) 对于选择在氟氯烃淘汰管理计划结束之前执行项目的国家；

(i) 累积削减的起始点应设定在第一个项目获得核准时，而这一项目将会淘汰对计划不利的氟氯烃；

(ii) 如果采用个别项目做法，那么在提交第一个项目时应说明示范项目如何同氟氯烃淘汰管理计划相联系以及何时提交氟氯烃淘汰管理计划；

(e) 执行委员会不妨考虑提供援助资金，以便将氟氯烃管制措施纳入立法、管理和许可证制度，并在必要时将其作为为编制氟氯烃淘汰管理计划供资的一部分，同时要求明确与执行氟氯烃淘汰管理计划供资的先决条件相同的执行情况；

(f) 如果一个国家有多个执行机构，应指定牵头机构协调氟氯烃淘汰管理计划第一阶段的整体制订；

(g) 氟氯烃淘汰管理计划在提交时应包含成本信息，其依据和内容是：

(i) 在提交时大部分氟氯烃的成本准则；

(ii) 基于不同潜在截止日期的替代技术成本计划：仍未确定截止日期的新生产力成本，第 53/37 号决定第（k）段规定的符合条件的制造设施供资成本，以及目前截止日期为 1995 年 7 月 25 日的政策成本。

(iii) 为第二轮转换的操作和资本费用制订替代技术成本计划；

(iv) 一旦证明替代技术在国家中的商业可行性并且成本与维修行业相关，则禁止进口和向市场供应使用氯氟烃的设备所产生的增量成本；

(v) 与臭氧消耗潜能值和全球变暖潜势效益相关的基于各种替代技术的成本和效益信息；

(vi) 在多边基金以外调集额外资源的备选办法，以便使气候在多边基金中的受益最大化；

(h) 氯氟烃淘汰管理计划应该为共同供资提供财政奖励和机会，包括如何执行这些方案；

(i) 氯氟烃淘汰管理计划应涉及：

(i) 利用第 53/37 号决定的第（e）和（f）段提到的机构安排；

(ii) 制冷技师协会和其他工业协会的作用和职责，以及他们如何为淘汰氯氟烃化合物做出贡献；和

(j) 如本文件第 42 至 66 段所述，氯氟烃淘汰管理计划应该至少达到制订氯氟烃淘汰管理计划指示性纲要中的数据和信息要求。

Annex I

ADJUSTMENTS TO THE MONTREAL PROTOCOL WITH REGARD TO ANNEX C, GROUP I, SUBSTANCES (HYDROCHLOROFLUOROCARBONS (DECISION XIX/6 (2007))

"The Parties agree to accelerate the phase-out of production and consumption of hydrochlorofluorocarbons (HCFCs), by way of an adjustment in accordance with paragraph 9 of Article 2 of the Montreal Protocol and as contained in annex III to the report of the Nineteenth Meeting of the Parties,[6] on the basis of the following:

1. For Parties operating under paragraph 1 of Article 5 of the Protocol (Article 5 Parties), to choose as the baseline the average of the 2009 and 2010 levels of, respectively, consumption and production; and

2. To freeze, at that baseline level, consumption and production in 2013;

3. For Parties operating under Article 2 of the Protocol (Article 2 Parties) to have completed the accelerated phase-out of production and consumption in 2020, on the basis of the following reduction steps:

(a) By 2010 of 75 per cent;

(b) By 2015 of 90 per cent;

(c) While allowing 0.5 per cent for servicing the period 2020–2030;

4. For Article 5 Parties to have completed the accelerated phase-out of production and consumption in 2030, on the basis of the following reduction steps:

(a) By 2015 of 10 per cent;

(b) By 2020 of 35 per cent;

(c) By 2025 of 67.5 per cent;

(d) While allowing for servicing an annual average of 2.5per cent during the period 2030–2040;

5. To agree that the funding available through the Multilateral Fund for the Implementation of the Montreal Protocol in the upcoming replenishments shall be stable and sufficient to meet all agreed incremental costs to enable Article 5 Parties to comply with the accelerated phase-out schedule both for production and consumption sectors as set out above, and based on that understanding, to also direct the Executive Committee of the Multilateral Fund to make the necessary changes to the eligibility criteria related to the post-1995 facilities and second conversions;

6. To direct the Executive Committee, in providing technical and financial assistance, to pay particular attention to Article 5 Parties with low volume and very low volume consumption of

[6] UNEP/OzL.Pro.19/7.

HCFCs;

7. To direct the Executive Committee to assist Parties in preparing their phase-out management plans for an accelerated HCFC phase-out;

8. To direct the Executive Committee, as a matter of priority, to assist Article 5 Parties in conducting surveys to improve reliability in establishing their baseline data on HCFCs;

9. To encourage Parties to promote the selection of alternatives to HCFCs that minimize environmental impacts, in particular impacts on climate, as well as meeting other health, safety and economic considerations;

10. To request Parties to report regularly on their implementation of paragraph 7 of Article2F of the Protocol;

11. To agree that the Executive Committee, when developing and applying funding criteria for projects and programmes, and taking into account paragraph 6, give priority to cost-effective projects and programmes which focus on, *inter alia*:

(a) Phasing-out first those HCFCs with higher ozone-depleting potential, taking into account national circumstances;

(b) Substitutes and alternatives that minimize other impacts on the environment, including on the climate, taking into account global-warming potential, energy use and other relevant factors;

(c) Small and medium-size enterprises;

12. To agree to address the possibilities or need for essential use exemptions, no later than 2015 where this relates to Article 2 Parties, and no later than 2020 where this relates to Article 5 Parties;

13. To agree to review in 2015 the need for the 0.5 per cent for servicing provided for in paragraph 3, and to review in 2025 the need for the annual average of 2.5 per cent for servicing provided for in paragraph 4 (d);

14. In order to satisfy basic domestic needs, to agree to allow for up to 10% of baseline levels until 2020, and, for the period after that, to consider no later than 2015 further reductions of production for basic domestic needs;

15. In accelerating the HCFC phase-out, to agree that Parties are to take every practicable step consistent with Multilateral Fund programmes, to ensure that the best available and environmentally-safe substitutes and related technologies are transferred from Article 2 Parties to Article 5 Parties under fair and most favourable conditions."

Annex II

VIEWS OF COUNTRIES

SUBMITTED BY THE GOVERNMENTS OF AUSTRALIA AND CANADA

Joint Submission

Elements the Secretariat should consider in the draft guidelines for the preparation of HCFC national management plans

As suggested in Decision 53/37 (h), the guidelines for the preparation of HCFC national management plans should draw on both the existing *guidelines for country programmes* and the *guidelines for the preparation, implementation and management of performance-based sector and national ODS phase-out plans*. However, they should also be innovative and flexible to take into account of the fact that the phase-out of HCFCs in Article 5 countries poses unique challenges, some of which are yet to be fully understood.

While it is useful for the Executive Committee to be guided by experience, it is important that this experience does not result in imposing principles and procedures which may constrain an Article 5 country's ability to address HCFCs in a manner which best suits its particular national circumstances. Given that these circumstances may change considerably between 2008 and the 2030 97.5% reduction target, and that new HCFC substitutes are likely to become available during this 22-year period, the guidelines for the preparation of HCFC national management plans should encourage innovation, and provide for periodic revision and updating of the management plans. This means that it may be too early, at this stage, to adopt guidelines for the preparation of long-term detailed plans, under which countries would commit themselves to meeting specific targets over a 22-year period, in exchange for defined tranches of funding.

While the requirement for flexibility and innovation can be readily understood, it needs to be balanced by the recognition that compliance with the relatively near-term targets of the 2013 HCFC freeze and 2015 10% reduction step will require that specific activities are implemented in Article 5 countries in the near-future. In order for these activities to be effective, and to ensure the continued equitable treatment of all Article 5 countries under the Multilateral Fund, the guidelines for the preparation of HCFC national management plans should be sufficiently comprehensive and universally applicable in their nature.

To ensure an appropriate balance between flexibility and innovativeness on the one hand, and comprehensiveness and universality on the other, Canada suggests the guidelines define a framework for countries to develop both **a long-term strategy** (along the lines of a Country Programme) identifying generally the main actions the country expects to undertake in order to fully comply with the HCFC phase-out schedule, and within this strategy, a specific **HCFC phase-out management plan** for addressing primarily the 2013 freeze and the 2015 10% reduction step. Only the phase-out management plan component of the strategy would have specific costs attached to it and be considered for funding by the Executive Committee.

As the 2015 reduction step approaches, countries would revise their long-term strategies, taking into account their evolving national circumstances and the availability of HCFC substitutes, and design new phase-out management plans to address the subsequent HCFC phase-out target(s) (i.e. at least the 2020 35% reduction step). In other words, the guidelines need to define an approach, wherein a long-term strategy is continually updated, while specific phase-out plans are developed, approved by the Executive Committee and implemented in phases. A phased implementation approach would allow eliminating those HCFC uses where substitute technologies are more readily available and cost-effective.

In defining the framework for the proposed long-term strategies and short-term phase-out plans, the guidelines should or could take the following ideas into account:

(a) outlining the key elements a country should consider when developing an HCFC survey, on the understanding that the survey would:
    (i) confirm current overall HCFC consumption levels;
    (ii) determine HCFC consumption in each relevant sector;
    (iii) forecast future HCFC consumption (i.e. up to at least 2015);

(b) providing guidance to the country for setting a national consumption ceiling, if possible, prior to the establishment of the baseline - this would help in limiting the liability of the Multilateral Fund and provide Article 5 countries with a decreased liability with respect to assisting their enterprises transition to alternatives;

(c) ensuring that the long-term national strategy is sufficiently flexible to be updated on a periodic basis (for example, every 4 years), and that it takes into account the requirements of MOP Decision XIX/6, paragraph 11 (i.e. emphasis on cost-effective projects, phasing out HCFCs with higher ODPs, selecting substitutes that minimize other environmental impacts, etc.).

(d) ensuring that the HCFC management plans provide a range of options for the country to meet the 2013 and 2015 targets, and highlight in particular the **most cost-effective option**, taking into consideration the following:

    (i) the comparative cost-effectiveness of taking action in different sectors to meet the 2013 and 2015 targets, principally, the refrigeration servicing sector, refrigeration manufacturing sector and/or foam sector;

    (ii) the comparative cost-effectiveness of transitioning to different available HCFC alternatives in the sectors identified for action;

    (iii) the extent to which HCFC reductions could be made by first targeting those enterprises wherein HCFC manufacturing capacity is nearing its end of life – it is more cost-effective to assist an enterprise which is already planning to replace a significant part of its capital equipment than one with relatively new capital

equipment, as the main project costs would then consist of technical assistance and operating costs of HCFC substitutes;

(e) ensuring that countries prioritize the development and adoption of appropriate HCFC legislation to ensure compliance with the Montreal Protocol; such legislation could include not only HCFC import controls, but also controls on the import of HCFC-based equipment, particularly in countries wherein HCFC consumption is principally associated with servicing imported equipment. The HCFC national management plans should consider the extent to which the HCFC freeze can be met by avoiding HCFC growth through effective implementation of such legislation.

The Executive Committee should aim to finalize at least interim HCFC guidelines by its 54th Meeting, so that funding for preparation of national plans could be approved at 55th Meeting.

Cost considerations to be taken into account by the Secretariat in preparing discussion document

Currently, the Executive Committee has relatively little information on which to base the determination of cost-effectiveness thresholds that could be applied to fund HCFC phase-out projects. Furthermore, even if more extensive information on the cost of phasing out HCFCs in Article 5 countries were available, it is likely that these costs would vary over time, as the situation regarding HCFC substitutes is certain to change significantly over the next two decades.

Canada does support the Executive Committee consulting technical experts with respect to this issue, with a view to eventually developing, if not cost-effectiveness thresholds, at least some cost norms to provide some broad parameters for estimating the costs of HCFC phase-out. However, as a parallel approach, Canada also believes that the Executive Committee could move forward with consideration of financing of an initial, small representative group of proposed national plans, prepared on the basis of the guidelines discussed above. Consideration of funding for such plans, prior to finalizing cost norms (or cost-effectiveness thresholds) would enrich the analysis, as it would ensure that discussion on costs takes into account practical examples of HCFC use in some Article 5 countries, as well as the proposed costs and strategies for phasing HCFC consumption in different sectors.

Once costs for this initial group of proposed national plans are agreed to, the Executive Committee could then finalize some cost norms or cost-effectiveness thresholds, which would provide the Secretariat with the guidance it needs to recommend funding levels for all the other national plans proposed.

It should be understood that, under this proposed approach, Article 5 countries which are not included in the small group, would **not** need to wait until the initial set of national plans are actually implemented in order to have their national plans considered. As soon as the Executive Committee reaches agreement on funding levels for the small group of national plans, all other plans would immediately be considered for funding. Therefore, this approach should not be confused with a “pilot project” approach, which was used sometimes in the case of the phase-out of CFCs. In Canada’s view, the proximity of the HCFC freeze would not allow sufficient time

for a "pilot project" approach. Moreover, provided that countries have developed well-thought out national and sectoral plans/ strategies, pilot projects are unlikely to be necessary anyway.

In order to ensure that the small group of national plans is as representative as possible, the Executive Committee could consider selecting plans from two high-volume consuming countries, two medium-volume consuming countries, two low-volume consuming countries, and two very-low volume consuming countries.

The following suggests a tentative timetable for finalizing cost norms and approving the national plans (assuming three Executive Committee meetings per year):

- Executive Committee 55: start approving preparation of national HCFC phase-out plans

- Executive Committee 58 and 59: review and determine costing of initial group of national plans – finalize cost norms and approve funding for initial group of plans

- Executive Committee 60: start approving national plans for all remaining countries

This means that phase-out plans could begin to be approved for most countries by early 2010, which should provide sufficient time for countries to meet 2013 and 2015 targets.

Cut-off date for funding eligibility

Canada considers that the cut-off date for funding eligibility of HCFC facilities should be a date in the past. This would provide certainty for both Article 5 and non-Article 5 countries with respect to their liabilities and provide a base that can be technically reviewed effectively and on which our forward liabilities can be easily calculated. Furthermore, while the acceleration of the phase-out of HCFCs was agreed to in 2007, all Parties have known that HCFCs were due for phase-out since the 1992 Copenhagen amendment, and have had the opportunity to tailor their domestic regulatory regimes in consequence.

While the cut-off date should be in the past, Canada believes that the current cut-off date of July 1st, 1995 is not appropriate in the case of HCFCs, because at that time, HCFC alternatives were not readily available for all applications in Article 5 countries. In addition, the Parties clearly intended that the Executive Committee select a cut-off date after 1995, when it decided, in Decision XIX/6, to direct the Executive Committee "to make the necessary changes to the eligibility criteria related to post-1995 facilities".

Canada suggests that the most preferable cut-off date is 2004. By 2004, alternatives to most uses of HCFCs were clearly available. 2004 is the year when non-Article 5 Parties were mandated, under the Montreal Protocol, to achieve their first reduction in HCFC consumption (i.e. 35% reduction). The fact that non-Article 5 Parties easily achieved or exceeded this reduction suggests that there was little need to establish new HCFC manufacturing capacity by that time.

Furthermore, under the Kyoto's Protocol Clean Development Mechanism (CDM), any HCFC-22 production capacity established after 2004 is considered not eligible to receive HFC-23 destruction credits. Since this cut-off date under the CDM was selected to remove any perverse incentive increase HCFC-22 production, it can be argued that it was a signal for the markets in Article 5 Parties to constrain growth. Aligning the CDM and MLF eligibility cut-off dates and restricting access to MLF funds to firms that began (or expanded) operations after the end of 2004 would establish clear liabilities for the MLF and producers of HCFC-22.

Second-stage conversion

In Decision XIX/6, the Parties also directed the Executive Committee to make the necessary changes to the eligibility criteria related to second-stage conversions. While this suggests that the Executive Committee should consider providing assistance to firms which converted to HCFCs with MLF financing, it does not oblige the Executive Committee to cover the entire costs associated with the conversions of such enterprises. In fact, full funding may not be justified for the following reasons:

- almost all MLF-assisted transitions to HCFCs were in the foam sector, where in many cases drop-in substitutes to HCFCs can be used in existing manufacturing equipment, making conversion unnecessary;

- the enterprises concerned signed letters committing to phasing out HCFCs without further assistance from MLF - the fact that this phase-out schedule has now been accelerated does not completely invalidate this commitment; at the most, it could be argued that it obliges the MLF to pay for the incremental costs associated only with the acceleration of the phase-out;

- since the majority of MLF foam projects were implemented prior to 2002, a significant portion of the manufacturing capacity installed will need to be replaced anyway by the time Article 5 Parties have to achieve their first HCFC reduction (i.e. 2015)

For these reasons, Canada believes that the principal role of the MLF with respect to second stage conversion should be to provide:

(1) training and technical assistance to make basic adjustments to existing foam manufacturing equipment, if needed, to ensure such equipment can function effectively and efficiently with substitutes when possible;

(2) funding for additional safety-related costs associated with the use of substitutes, mainly when hydrocarbons are selected as alternatives to HCFCs, and

(3) funding to cover the operational costs of using HCFC substitutes for the traditional 2-year period.

SUBMITTED BY THE GOVERNMENT OF CHINA

China's Views on Some Issues Concerning HCFC

I. The HCFC phase-out management plans

Viewing the complication of the phase-out of HCFC and based on previous experience from the phase out of other ODs (especially CFCs), we would suggest that the MLF consider the phase out of HCFC in the majority of Article 5 countries could include the following stages:

1. The Country Program and Sector Plan development stage
To meet the targets set in the Adjustment regarding the accelerated phase-out of HCIT, the Article 5 countries now urgently need to set up their action plans based on national surveys on HCFC production and consumption and research and study on substitute technologies and relevant polices. Therefore, we suggest that the MLF should first approve the projects of the development of country programs and sector strategies as scan as possible, so that the Parties could have their guiding programs in 1-2 years. We also support the inclusion of the national surveys into the development of HCFC phase-out management plans to save time and increase efficiency.

2. Implementation of projects prioritized in the management plans

The duration of this stage may last from 2009 to 2012. In this stage, the main target of the Article 5 countries is to slow down the increase of the production and consumption of HCFC through implementation of the projects prioritized in the country programs and sector strategies, so that they could successfully freeze the production and consumption HCFC at the baseline level in 2013.

In the consumption sectors, phase-out activities could be carried out in sub-sectors with mature substitute technologies in the form of individual project, umbrella project or sector plan. For those sectors unsuitable to implement real phase out projects in this stage, we suggest that demonstration projects could be carried out to test technologies and accumulate experience for future activities. In the production sectors, the substances that need to be frozen or eliminated first could be identified and relevant phase-out activities could be implemented in the form of sector plans. Meanwhile, individual countries should make relevant industrial adjustment policies and quota management systems, and strive to develop suitable substitutes.

3. Large scale implementation of country programs and /or sector plans
After the first two stages, the countries have accumulated abundant experience, and large scale implementation of the country programs and/or sector plans could be carried out to realize the reduction targets.

11. Cut-off date for funding eligibility
We think the following several dates could be considered as the cut-off date for funding eligibility:

1. December 31, 2009.
This marks the end of the first year of the two years for calculating the baseline, and the production capacity which is in existence by then should have contributed to the baseline and consequently be considered as eligible for funding for phasing out HCITC consumption and production.

2. December 31, 2008.
As the Adjustment regarding the accelerated phase-out of HCFC has just been approved for a couple of months, the Article 5 countries need some time to make and issue relevant policies to the industry. And generally speaking, this process takes about 1-2 years. Therefore, December 31, 2008 could be a reasonable date for cut-off for funding eligibility.

3. September 17, 2007.
We think the date when the Adjustment was approved could also be considered as one choice. However, as there are some production installations whose establishment is approved by the national government but which are not in production by then, we strongly believe that this kind of production capacity should hot be excluded for funding in this choice.

III. Second-stage conversions
As we reiterated at the 53rd Meeting of the Executive Committee, we regard the funding for the second-stage conversions an issue of principle which has been agreed by all Parties, and think that the MLF should of course fund the second-stage conversions.

The conversion h m CFC to HCFC in most enterprises was the only choice they could make under the circumstances f that time. These enterprises have made great investment themselves in the conversion, and were expecting to: use these installations for the future years. However, due to the accelerated phase-out of HCFC, the enterprises will surely suffer great loss. If government ask the enterprises to bear all the loss themselves, they are very likely to be malcontent with the government, &td their opinion will also probably have bad influence on other enterprise, i.e., to make them worry and reluctant to participate in future projects organized by the Governments. And this will pose great obstacles in the future phase-out efforts of the governments of the Article 5 countries.

The above mentioned points represent China's views on the issues relevant to HCFC in the Decision 53/37. China has enjoyed fruitful cooperation with the MLF for 20 years, and China hope to continue this cooperation in the phase-out of HCFC, thus to make continuous contribution to the protection of the ozone layer.

SUBMITTED BY THE GOVERNMENT OF CZECH REPUBLIC

Comments of the Czech Republic

(i) Elements the Secretariat should consider in the draft guidelines for the preparation of national HCFC phase-out management plans.

One important element that should be considered for any criteria and guidelines resulting from them is the question of existing of licensing systems for HCFCs according to the Montreal Amendment.

With respect to the question of HCFC surveys, we associate ourselves with the recommendation of the Secretariat's recommendation as written in paragraph 18 of the document UNEP/Ozl.Pro/ExCom/53/60, notably with the first recommendation of incorporating the HCFC surveys into the national HCFC phase-out management plans. These two types of activities seem very closely linked together and it could be useful to somehow merge them within the national phase-out plan framework.

One of the most important elements which should be taken into account is the question of climate benefits of HCFC phase-out. The whole process of establishing any criteria and guidelines for phase-out plans and projects should be designed and adopted with a careful consideration of any potential detriments to the climate protection resulting from implementation of, high GWP alternatives. We should strive to implement as low GWP potential as possible and practicable. When establishing any cost-effectiveness criteria for phase-out projects we should bear this crucial criterion in mind as well.

(ii) Cost considerations to be taken into account by the Secretariat in preparing the discussion document referred to in paragraph (i) above.
We do not have any specific recommendation in this regard. We believe that the cost considerations in the guidelines will eventually result from the consultations with technical experts that are mentioned in the paragraph i) of the decision 53/37.

(iii) Cut-off date far funding eligibility
We believe it would be advisable to link the cut-off date with the year of introduction of the CDM mechanism what would be 2003 as the large portion of the high growth in HCFC market is caused by the inappropriate incentive created by CDM while phase-out date for HCFC was already established in the Montreal Protocol. The: MLF should not finance growth of HCFC production and consumption that resulted from that action.

The latest cut-off date possible is definitely 25 November 2007 what corresponds with a preceding logic for establishing a cut-off date for CFCs (paragraph 32 to 34 of UNEP/Ozl.Pro/ExCom/53/60).

Consideration of any later cut-~off date seems unacceptable. That way the MLF would finance HCFCs introduced after the time when the decision for supporting their substitution was taken already.

(iv) Second stage conversions

We believe that second stage conversions should be financed to certain extent. because the language of the decision of the Parties XlX/16 simply expresses a change of policy in this regard and this change play4 and important role in reaching an agreement an HFCF , accelerated phase-out. We therefore think that it is necessary to support second stage conversions and to determine an adequate criteria and cut-off date for such support.

It would be very useful to gather the information on all projects and plants that have been subject to MLF support with use of introducing an HCFC production or consumption including the year of conversion. That way the Executive Committee would be able to see how big the problem is and what time scale and amount of ODP is involved. That could subsequently enable the ExCom to determine what changes to its second stage conversion policy and eligibility criteria are necessary and how to address the paragraph 5 of the decision of the Parties XlW6.

More strict criteria for second stage conversions compared to facilities not yet financed are in our view at least worth considering.

SUBMITTED BY THE GOVERNMENT OF GERMANY

Germany's response to Executive Committee Decision 53/37:

(submitted to the MLFS on 15 January 2008 to be forwarded to the 54th ExCom)

At the Fifty-third Meeting of the Executive Committee (Montreal, 26-30 November 2007, the Committee addressed a discussion paper prepared by the Secretariat on options for assessing and defining eligible incremental costs for HCFC consumption and production phase-out activities and decided, among others:

(I) As a matter of priority, and taking into account paragraphs 5 and 8 of decision XlX/6 of the Nineteenth Meeting of the Parties, to invite Executive Committee Members to submit their views on the following issues to the Secretariat, by 15 January 2008, with the understanding the Secretariat would make the submissions available to the 54th Meeting:

(i) Elements the Secretariat should consider in the draft guidelines for the preparation of national HCFC phase-out management plans;

- ***Ensure performance based funding.***
  Maintain the principle of funding aggregated ODP reductions analogue to the Executive Committee decision 35/57 for all HCFC projects. Any agreed early funding (before the HCFC baseline established on the average of the 2009/2010 consumption) should be deducted from the final funding baseline. Limit early funding to a percentage of a country's latest reported HCFC consumption.

- ***Eliminate potential for gaming and perverse incentives.***
  Review and apply lessons learnt through establishing the CFC funding baseline. Explore possibilities/mechanisms to identify and sanction over reporting, gaming of enterprises and excess production during baseline assessment and respectively the assessment of funding baselines.

- ***Existing guidelines and procedures.***
  HCFC should be included in the existing "Guidelines for the preparation, implementation and management of performance-based sector and national ODS phase-out plans".

- ***Discourage use of HCFC alternatives with high GWP.***
  As a general principle not to use gases covered by the Kyoto Protocol (except CO2). Preference should be given to alternatives with close to 0 GWP. Pre-freeze (pre-2013) project approvals should be limited to close to 0 GWP alternatives.

- ***Preparation of Management Plans.***
  The preparation of a country's HCFC Management Plan should incorporate a country program update containing an action plan to meet the 2013 freeze and the first reduction step in 2015, including needed legislative and regulatory measures;

- ***Pre-freeze (2013) HCFC activities.***
  Strategic activities that could be considered for funding by the MLF between now and the establishment of the baseline at the end of 2010:
    - demonstration projects with no/very low GWP technology
    - effective conservation measures with long term effects
    - establishing necessary frameworks for management, monitoring and awareness building in the various HCFC applying sectors as initial part of the HCFC Management Plans (provided that additional funding for project management in addition to the institutional strengthening project is justified).
    - continue complementary training and capacity building activities in relevant sectors

- ***Incorporation of earlier funded capacities.***
  Management plans shall fully consider the possible incorporation of capacities already funded under other ODS phase out measures of the MLF and utilize them for better cost effective HCFC phase out implementation. *(Fund complementary rather than repeated activities.)*

- ***No funding of individual projects in the consumption sector other than demonstration projects.***
  Lessons learnt in the MLF indicate that performance based sector or national phase out plans resulted in a superior impact while providing more flexibility to countries. As a consequence, there should be no return to individual project funding under the HCFC phase out regime.

- ***Prevent any possibility for further interim conversions.***

  Propose financial incentives for the early introduction of HCFC alternatives with higher climate and / or other benefits as compared to business as usual conversions (e.g. to HFC). One possibility for such a mechanism could be to allow for different levels of "cost efficiencies" to be considered for the various alternatives in correlation to their associated environmental benefits.

  There is precedent in earlier MP conversion projects when higher cost efficiency levels were allowed for the conversion to HC technology as alternative to CFC.

- ***Production phase out:***
    - In support of the production sector sub group, which shall reconvene on the issue of HCFC-production phase out, an assessment of existing production capacity could be made on the basis of available data, which shows the level of production and HCFC-kind for emissive uses, feed stock and process agents, as well as estimated levels of the by-products HFC-23 and CTC. On the basis of this a further assessment could be attempted to identify production capacity that could be shut down relatively easily thereby maximizing benefits for the ozone layer and the climate.

- Increase in HCFC-feedstock demand may offset HCFC production for emissive uses. Swing plants that have been funded earlier to convert from CFC production should not receive further funding.
- Possible financial incentives for terminal HCFC-production closures should be explored along with mechanisms to ensure that new production capacity will not be created.
- Avoiding production increases until 2010: explore possible measures to avoid (speculative) production increases to artificially inflate the funding baseline (e.g. to develop strategies to shift production to non-emissive uses).

(ii) Cost considerations to be taken into account by the Secretariat in preparing the discussion document referred to in paragraph (i) above;

- ***Maintain Cost Effectiveness (CE) thresholds for business as usual.***
  Whenever there is no added value for the climate, maintain existing sector guidelines on incremental costs calculations and agreed CE threshold values according to decision **ExCom 16/20** paragraph 32c/d for the HCFC phase out.

- ***Providing a climate incentive:***
  In recognition of the consequences of the HCFC phase out as well as the chosen alternatives for the global climate, incremental costs for HCFC conversion that can demonstrate an added benefit to the climate should be eligible for funding above the threshold values under decision 16/20. as part of the total eligible project funding:

  i. in addition to existing sector threshold values (dec. 16/20) above and up to a maximum percentage of the resulting total funding

  ii. in proportion (percentage) to the aggregated GWP value of HCFC's and their alternatives consumed before and after project implementation.

  iii. The existing practice to allow for additional costs for operational safety of HC should be maintained for early conversions.

- ***Depreciation of equipment***
  Amend existing sector guidelines on incremental cost calculation to include the aspect of end of economic life of HCFC capacities. Provide an incentive for early adoption of ozone protecting technologies through consideration of depreciation costs.

(iii) Cut-off date for funding eligibility;

A compromise to determine the cut of date could be based on:

First step: start from the date the MP adjustment in September 2007.

Second step: negotiate how much time should be reasonably allowed for governments to officially notify their concerned industries about the adjustment and its consequences.

In this way enterprises which are legitimately in the process of production capacity increases at the time the adjustment came into force would not unduly be penalized. On the other hand enterprises that may attempt to attract illegitimate funding through last minute production increases could be largely eliminated. This in turn would strengthen the hand of governments as they could deal with their industries as a whole thereby avoiding resistance from individual enterprises due to distinctions that must be perceived as arbitrary.

(iv) Second-stage conversions"

- Records of all MLF funded conversions of enterprises exist. The MLFS should comment on the feasibility of preparing a status report on those enterprises identifying

    a. whether or not the enterprise is still in business, the age of the funded production line and its expected remaining useful commercial life time.
    b. the current status of HCFC-production
    c. other parameters helpful for an informed decision about reasonable eligible incremental costs for a second conversion.

- Consider second funding of installed HCFC capacities in cases

    a. where full economic consideration of already provided assistance for the conversion from CFC to HCFC is given
    b. where enterprises had been specifically converted to HCFC (no further funding will be approved for companies that had received funding for Non-HCFC alternatives)
    c. assistance is provided only for essential investment parts, not for any operational costs reimbursement.

SUBMITTED BY THE GOVERNMENT OF JAPAN

Japan's views on options for assessing and defining eligible incremental costs for HCFC consumption and production phase-out activities
(Submitted to the 54th Meeting of the Executive Committee in accordance with Decision 53/37)

General comments

- Japan respects the decision XIX/6 of the Meeting of the Parties to the Montreal Protocol which was adopted on the occasion of the 20th anniversary of the adoption of the Protocol and supports the concept that the agreed incremental costs should be covered by the Multilateral Fund to enable Article 5 Parties to comply with their new commitment to the phase-out of HCFCs.
- Members of the Executive Committee are invited to submit their views on four issues with regard to the eligible incremental costs for phasing-out HCFCs under the decision 53/37 of the Executive Committee. Japan would like to submit its final views after a series of documents are published by the Fund Secretariat based on its experience and consultants' expertise for the consideration at the 54th Meeting of the Executive Committee. In general, Japan believes that discussions at the next Meeting of the Executive Committee should be conducted on the basis of the spirit of decision XIX/6 and be led to how we can assure the flexibility and efficiency and maximize the ozone protection benefit taking into account the cost-effectiveness and the impact on climate change.
- With those in mind, Japan submits its tentative views as follows.

Specific suggestions

(i) Elements the Secretariat should consider in the draft guidelines for the preparation of national HCFC phase-out management plans

- In order to implement the paragraph 8 of decision XIX/6 immediately and effectively, the guidelines should include the following elements.
  - Compilation of the information on a legal framework in the recipient country concerned that would assure collecting reliable baseline data on HCFCs, including the implementation of license system for HCFCs and a current scheme for collecting the reporting data on HCFCs under Article 7 of the Protocol;
  - Establishment of methodology for validation of the baseline data, including collecting information on the import data from individual importers and on the shipment for each sector/usage; and
  - Arrangement for differentiating the production and consumption data on HCFCs between emission uses and feedstock uses.
- Japan supports the idea described in paragraphs 41 and 42 of the document UNEP/OzL.Pro/ExCom/53/60, which contributes to the consideration of the assistance for second-stage conversions in an effective manner as well as the consideration of an impact of the assistance for second-stage conversions. This idea should be incorporated into the guidelines

- In order to minimize environmental impacts, the guidelines should require that national HCFC phase-out management plans describe the conversion policy which also contributes to tackling climate change and other environmental issues through, for example, conversions from HCFCs to low-GWP substances and more energy-saving equipment, as mentioned in the paragraph 11 (b) of decision XIX/6.
- The guidelines should include the breakdown of consumption data of each type of the uses and applications at the baseline years and their future consumption forecast in order to develop a concrete strategy for phase-out of HCFCs. The amount of stockpile which is not allocated to any specific use should also be identified.
- The following elements should be included in the guidelines with a view to assuring the flexible implementation of the long-term phase-out activities of HCFCs:
  - Framework which enables plans and/or strategies that can be reviewed in a flexible manner and developed in an optimized form, according to the development stage of substitutes and alternatives. This includes setting shorter time-frame for plans and/or strategies, for example, targeting 10% reduction by 2015 instead of covering the whole compliance period; and
  - Framework which enables accelerated phase-out.
- The following information should be considered in order to utilize expertise obtained and infrastructure made through implementation and/or evaluation of projects:
  - Projects for phasing out CFCs;
  - Surveys on HCFCs in Article 5 countries;
  - Evaluation reports of Refrigerant Management Plans, National Phase-out Plans, etc. if available; and
  - Information on the types and number of the existing recovery & recycling machines and refrigerant identifiers applicable to HCFCs.

(ii) Cost considerations to be taken into account by the Secretariat in preparing the discussion document referred to in paragraph (l) (i) of decision 53/37

- The following elements should be considered in addition to those which were presented to the 53rd Meeting of the Executive Committee by the Fund Secretariat.
  - Deduction of saving of operational costs through the reduction of energy consumption, if the energy efficiency of the equipment improves through conversion; and
  - How to share the costs for replacing HCFC-based chillers and food industry refrigerators with the Global Environment Facility (GEF), given that the energy efficiency of the equipment could be improved by replacement and a part of the replacement costs could be supported by GEF in the focal area of climate change.
- Cost-effectiveness of projects should be evaluated on an ODPt basis in order to be consistent with the spirit of the Montreal Protocol and ensure ozone layer protection.

(iii) Cut-off date for funding eligibility

- Though six options are presented as a result of discussions at the 53rd Meeting, Members of the Executive Committee should continue to discuss on this issue to narrow these options down at the next Meeting, with a view to decreasing burdens of the Technology and Economy Assessment Panel when it considers the level of upcoming replenishment.

(iv) Second-stage conversions

- Japan fully understands the fact that the 19th Meeting of the Parties directs the Executive Committee to make the necessary changes to the eligibility criteria related to second-stage conversions in the paragraph 5 of the decision XIX/8 with the understanding that the Multilateral Fund will cover all agreed incremental costs to enable Article 5 Parties to comply with the accelerated phase-out of HCFCs. As mentioned in (i) above, Japan expects that the idea presented in paragraphs 41 and 42 of UNEP/OzL.Pro/ExCom53/60 concerning second-stage conversions should be realized in order to consider the necessary and effective assistance taking into account the current situation of facilities converted from CFCs to HCFCs through the assistance by the Fund.

(END)

SUBMITTED BY THE GOVERNMENT OF MEXICO

(l) As a matter of priority, and taking into account paragraphs 5 and 8 of decision XIX/6 of the Nineteenth Meeting of the Parties, to invite Executive Committee Members to submit their views on the following issues to the Secretariat, by 15 January 2008, with the understanding that the Secretariat would make the submissions available to the 54th Meeting:

(i) Elements the Secretariat should consider in the draft guidelines for the preparation of national HCFC phase-out management plans;

Conduct surveys to support Art. 5 Parties in establishing their baseline data on HCFCs;

To give priority to the phase-out projects that considers a higher amount of HCFC either in metric tones and ODP tones.

Funding second stage conversion in a case by case basis

(ii) Cost considerations to be taken into account by the Secretariat in preparing the discussion document referred to in paragraph (i) above;

To consider the cost effectiveness in the consumption and production in metric tones, not in ODP tones;

To take into account the cost of technology transfer and the technical support to use the new technology;

(iii) Cut-off date for funding eligibility;

The dates proposed were the following:

2000 (Cap of HCFC production/consumption in one major country);
Not acceptable because during the year 2000 and further years there were several conversions from CFC to HCFC, in this case several companies could be out of funding.

2003 (Clean Development Mechanism);
Not acceptable because this is not for consideration in the Montreal Protocol, because the CDM help to avoid the use of green house gases without considering the substance controlled by the Montreal Protocol.

2005 (proposal for accelerated phase-out of HCFCs);
This date is also not acceptable because the rules for the phase out of HCFC were not established and there were also several companies that were doing the conversion from CFC to HCFC.

2007 (Nineteenth Meeting of the Parties);
Considering the same criteria for the CFC cut off date, **September 16th of 2007** was the date that the parties agreed to accelerate the phase out of HCFC, and then all the companies that consumed before this date are eligible and avoid the installation of new plants after this date.

2010 (end of the baseline for HCFCs);
Not acceptable because with this date we would promote the installation of new companies increasing artificially the consumption of HCFC.

(iv) Second-stage conversions;

The second stage conversion should be considered in a case by case basis, considering the cost of the technology transfer, the incremental costs and technical support to use the new technologies.

SUBMITTED BY THE UNITED STATES OF AMERICA

BACKGROUND

The United States would like to congratulate the global community for its significant progress in phase-out of ozone depleting chemicals. We believe that Article 5 countries have acquired vast experience over the last two decades implementing programs, projects and policies to phase out ODS in accordance with obligations under the Montreal Protocol and with $2 billion worth of assistance from the Multilateral Fund. The challenge of phasing out HCFCs should take advantage of the capacities that Article 5 countries have acquired in implementing their domestic programmes, projects and policies to address the phase-out of other ODS.

Looking forward, the United States anticipates that there will be efficiencies, structures, and institutions on which to build the HCFC phase-out which will likely result in a decreased need for investment in certain areas of the Article 5 country phase-out HCFCs. In addition, we note that it is likely that there will be a decreased demand on Article 5 capacities as we move forward. Currently, Article 5 countries manage the phase-outs of 11 individual ODSs (CFCs, halons, methyl bromide, carbon tetrachloride, and methyl chloroform) compared to a post 2010 outlook where responsibilities will lie primarily with managing four major HCFCs which are, by in large, used in fewer industrial sectors than all of the other ODSs. These factors suggest the opportunity for cost savings in one area that would free up valuable resources for other important needs.

In recent ExCom history, two funding models have been used. In 2000 – 2002 a shift from a project-by-project funding to a country-driven approach was implemented by the Committee. The country-driven model allowed for the use of, and calculation of "sustained aggregate reductions" from which Article 5 countries would measure performance in their projects. Since adoption of the concept of "sustained aggregate reductions" the Article 5 countries and implementing agencies have adopted wholeheartedly more and more national- and sector-wide phase-out plans that make "sustained aggregate reductions." The concepts of "sustained aggregate reductions" and "sector or national phase-out plans" have become the norm rather than the exception for MLF projects. The "phase-out plan" approach with "sustained aggregate reductions" has proven to be more cost-effective than the project-by-project approach for the end consumption within A5 countries. The United States strongly supports this approach as a way to achieve reductions in a maximum cost-effective manner. At the 53rd Meeting of the Executive Committee, the notion of funding projects outside of the sustained aggregate reductions model was raised. The United States expressed support for the sustained aggregate reduction model and seeks to better understand the compliance basis for the argument to move away from this model from the advocates of such an approach.

Again, in the recent history, the ExCom was presented with the idea of funding CFC chillers projects because remaining CFC consumption in many A5 countries was servicing these large CFC-containing pieces of equipment. The ExCom understood that the projects might actually provide cost savings but wanted to demonstrate the environmental benefits, so chose to support a limited number of demonstration projects that required substantial counterpart funding, before MLF funds could be disbursed. In all cases, the Implementing Agencies and A5 countries created innovative projects that leveraged MLF core funding to acquire additional counterpart

co-financing. In some cases, the projects were so successful that they were either adopted by government, energy-sector quasi-government or private sector institutions to perpetuate the model. In these cases, the MLF funding was seed capital for the development of a revolving fund within the country for projects that had no eligible incremental cost component. Since some HCFC projects are likely to involve energy savings, further consideration of the seed money model may be warranted, again to ensure that funding decisions are made in a manner that is most efficient.

1. Elements the Secretariat should consider in the draft guidelines for the reparation of national HCFC management plans

We recommend that the Secretariat and ExCom build from lessons learned in implementing existing guidelines for the development, submission, and approval of country programmes, RMPs, RMP updates, TPMPs, as well as the recently developed guidelines for country-driven national and sectoral phase-out plans.

The procedures for developing and submitting country programs and country programme updates have evolved since the 3rd meeting of the ExCom. The U.S. believes that guidelines for the HCFC management plans should be even more straightforward than those for country programmes, such that they provide step-by-step procedures that help all Article 5 countries build on the already developed capacities in conducting existing country activities. We also believe that the guidelines for HCFC management plans can build on the ExCom experience with RMPs, RMP updates, TPMPs, and performance-based sector-wide and substance-wide national phase-out plans.

We believe that the submitted HCFC management plan should be a comprehensive action plan that encompasses a timetable for implementing specific activities, and indicates the sources of funding for planned activities. In addition, the U.S. believes that the management plan would be the foundation from which a country would submit for approval a first phase performance-based project – whether it is a sector-wide or substance-wide national phase-out plan (first phase). The experiences of the ExCom and Parties have demonstrated that the country-driven approach must be initiated by Article 5 countries in developing their own comprehensive management plan for addressing HCFCs.

To the extent that past lessons learned are applicable in this situation, our experience suggests that development of the HCFC management plan should be the prerequisite for all types of further funding for HCFCs, and should be directly linked to the submission of a performance-based sector-wide or substance-wide national phase-out plan. We note that the ExCom has sometimes complicated its ability to make decisions by agreeing to language in guidelines that needed to be clearer. In other cases, the ExCom has complicated its ability to make decision by agreeing to exceptions to existing guidelines which raise issues of precedence for how to treat other countries. We therefore wish to see HCFCs guidelines that are very logical and very clear. We also wish, for the sake of fairness amongst all countries, to see ExCom guidelines be applied equally across all Article 5 countries and avoid situations where exceptions need to be carved out.

HCFC management plans should be more extensive in scope than the past practice of country programs. They should include a comprehensive survey of HCFC use, that when completed would identify all uses of HCFCs. In this context, the United States sees much potential value in conducting surveys as they have a direct, compliance oriented function. In creating a comprehensive management plan, ExCom would be identifying the scope of future potentially eligible areas for funding. We believe that the survey could be done with a "mass balance approach" that would trace the use of all quantities of HCFCs produced within and/or imported into the country. The expectation is that the quantities of HCFCs that Article 5 countries have reported for years as consumption to the Ozone Secretariat under Article 7 of the Montreal Protocol could be balanced with all the amounts used in the various sectors. We note that the Montreal Protocol calls on all countries to have implemented an HCFC licensing system as of 1 January 2005 meaning that each country could take their licensing information as the basis for identifying specific quantities used in each separate industrial sector.

Past lessons learned also suggest that accomplishing certain actions early facilitate a smooth ODS phase-out. ExCom should clearly communicate that certain foundation building actions should be taken prior to or in conjunction with receiving financial assistance. Doing so would provide an incentive to governments to ensure that actions beneficial to achieving their phase-outs are taken at the appropriate time. The United States is interested in further exploring whether it makes sense to develop prerequisites for the submission of the funding request for the development of an HCFC management plan in light of the aforementioned rationale. Such possible prerequisites the United States would like to consider include: (1) ratification, (2) an existing and already implemented licensing system specific to HCFCs, and (3) in exchange for the 1st phase of funding a government commitment to meet the 2013 freeze, the 2015 reduction and the 2020 reduction. Additionally prerequisites for the submission of a proposal for a performance-based sector-wide or substance-wide national phase-out plan should be considered. For example, before an Article 5 country can submit a project proposal for a performance-based sector-wide or substance-wide national phase-out plan, there must have been 1 full year of training of customs officers regarding HCFCs that is documents as having reached more than 50% of the customs officers. Doing so would help address illegal trade issues which have been consistently identified by A5 countries as an issue of concern with respect to the CFC phase-out.

As alluded to above, the phase-out of CFCs was greatly enhanced through the widespread implementation of licensing systems and the United States anticipates that the tool will play an equally vital role in the HCFC phase-out. If countries expect to be able to comply with their 2013 freeze under the Montreal Protocol, a pragmatic decision maker would begin implementing a licensing system in the immediate future or have such a system in place already consistent with Protocol commitments. In addition to the benefits of having such a system in place early on, before a management plan is funded, the U.S. believes that the benefits and usefulness of collecting HCFC survey data will be greatly improved by the existence of an already established and implemented HCFC licensing system. Through the licensing system, the national ozone unit will be able to initiate inquires about the companies and sectors to which HCFCs are being sold to characterize national consumption.

We note that the freeze and first reduction step in the HCFC phase-out of developing countries is still many years into the future. However, the United States supports considering the concept of advancing the HCFC phase-out on a voluntary basis and assumes that a number of countries will wish to begin their HCFC reductions as an immediate follow-on to their CFC terminal phase-out thereby maintaining an even stream of assistance and capacity.

2. Cost considerations to be taken into account by the Secretariat in the discussion document

Similar to views stated previously by other government, cost effectiveness is a bedrock approach underlying Multilateral Fund assistance. Developed countries have made significant advancements in phasing out their production and consumption of HCFCs and therefore useful data on cost-effectiveness should be readily available to the Secretariat.

The United States believes that the financial mechanism of the Montreal Protocol was designed to assist Article 5 countries with addressing the global problem of ozone depletion. Article 5 countries have made enormous progress in addressing global ozone layer depletion and the phase-out of HCFCs represent the tail end of the problem. The United States believes that the calculation of agreed incremental costs must be based on the relative impact of HCFCs on the depletion of the ozone layer. Through the history of the operation of the Multilateral Fund, and in the large body of ExCom guidelines, the operation of the Fund has considered Article 5 Party support based on cost-effectiveness considerations of US$ dollars spent per ODP-weighted kilograms phased out. We believe that this practice should not change and that the MLF needs to continue to be similarly cost-effective in addressing the agreed eligible costs for phasing out ODP-weighted tonnes of HCFCs.

One complication is the great likelihood that the costs and therefore cost effectiveness of various technologies will change over time as these technologies mature and grow in the market place. In developing and agreeing to C/E ratios, the ExCom could also agree to a set reduction to take place at a specific time in the future. Many studies have been conducted on the topic of technology and market penetration and such data can yield a highly reliable estimate of the percentage decrease in cost of alternative technologies over time. This approach may merit further consideration.

3. Cut off date for funding eligibility

The United States believes that the year 2000 is the most appropriate and accurate date to use in establishing funding eligibility for a number of reasons.

a) Selecting an historic cut-off date is important to avoid creating a perverse incentive to amp up production/consumption with the expectation of financial assistance. The United States views this as an essential component of any future financial arrangements on CFCs.

b) The year 2000 in particular is most appropriate because some countries already had domestic legislation limiting HCFCs in place by that time. This action indicates that it was technically feasible to take action as of the year 2000 in the Article 5 country context. We believe the year 2000 would appropriately recognize the correct environmental behavior and does not reward those who lagged behind. Alternative technologies were widely available as of the year 2000 and in fact non-article 5 countries had already phased out many tons of HCFCs by that time.

4. Second stage conversions

The United States supports the concept suggested by some countries at the 53rd Meeting that assistance for second stage conversions be focused on training and technical assistance as the Fund has already made significant investments in this area.

As a general matter, in evaluating the issue of second stage conversion, ExCom finds itself in need of further information as to the rationale for such conversions and specific data such as the number of facilities, type of facility, date of first facility conversion etc. to better understand the basis and implications of possible action in this area.

SUBMITTED BY THE GOVERNMENT OF URUGUAY

This text was submitted in Spanish and has been translated. The original Spanish version can be found below the English text.

Elements to be taken into account by the Secretariat in the draft guidelines for the preparation of national HCFC management plans:

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- Approval of financing for preparing the Surveys, deemed to be essential in order to determine each country's situation;

- Examination of all sectors that use HCFCs, for example: **Refrigeration** – fixed air conditioning systems, refrigerated transport, industrial and commercial refrigeration; **Foams** – rigid, flexible, integral skin and others; **Solvents; Services**;

- Compiling and updating the database of projects implemented using Multilateral Fund resources, with updated figures for 2008;

- Definition of the format for presenting national plans – using the document already approved by the Executive Committee for the presentation of national programmes;

- Plant capacity in the country (projects already implemented) to be complemented by new resources/projects: recovery/recycling centres for "passive" treatment in the services sector; training/need to complement training;

- Destruction of impure ODS, management and logistics for the final destination of the equipment replaced and the substances. This priority aims to facilitate the preparation of national plans and should be implemented in 2008;

- Capacity-building projects in schools offering refrigeration courses so that future technicians can already be given training in good practices and environmental responsibility;

- Progressive sectoral phase-out plans, with emphasis on HCFCs with the highest ODP;

- Differential incentives for retrofit, where applicable;

- Plans for transfer of technology for gases with low impact on the climate, with reference to the availability of these new alternatives in each country (mainly in relation to technical training);

- Refunds for initiatives involving technological conversion, collection of gases and the disposal of the equipment replaced for countries that take immediate steps.

Cost considerations:

The cost-effectiveness coefficients to be adopted should take into account the following:

- The studies already conducted by the UNDP in this regard;

- The higher costs caused by the price difference between HCFCs and any substitutes. This means that, in the case of ODP or ODS, the **financing must be sufficient.**

- Transfer of the chosen technology;

- Security items needed for the new technology, bearing in mind the requirement that ODP = zero and GWP = low;

- Provision for the inclusion of final disposal logistics for the HCFC-containing equipment removed from the market and destruction of HCFCs that are contaminated or cannot be used;

- The conversion of CFCs to HCFCs is very different as far as the ozone-depleting potential (ODP) is concerned in comparison with conversion from CFCs to HFCs. For example, CFC 11 (with ODP of 1) to HCFC-141b (with ODP of 0.12) involves a reduction of 0.88. Conversion of HCFC-141b to HFC, on the other hand, only involves a small reduction of ODP;

- Consequently, as the cost of HCFC technology is much lower than the cost of the alternatives, such as HFCs, there is a possibility that the incremental cost will be higher than for the conversion from CFCs.

Time limit for eligibility for financing:

Criteria to be met when deciding on the time limit for eligibility

To prevent the establishment of new plants producing HCFC equipment and/or products;

Likewise, to prevent the establishment of new plants producing HCFCs (as occurred with the funds made available under the CDM);

Due regard to be given to those plants which, by the end of 2007, had provided verifiable information on production;

To ensure that technically and economically viable alternatives are available and are in fact being widely used in practice in countries parties to the Montreal Protocol because there are many examples but little equipment on the market;

Users of ODS adopted HCFCs as an intermediate alternative and employ these substances according to the current rules of the Montreal Protocol. Since the Nineteenth Meeting of the Parties, the rules have changed. The majority of the market was aware of this change.

Consequently, any company set up since then would be aware of the fact and therefore could/should bear the cost of its decision to use a substance that harms the environment and which is subject to a clearly-defined timetable for withdrawal from the market.

Accordingly, the cut-off date could be that of the Meeting of the Parties which approved the adjustment to the Montreal Protocol – the Nineteenth Meeting – when the timetable for accelerated phase-out of HCFCs was fixed, or December 2007.

Second-stage conversions:

Companies that converted under Multilateral Fund programmes should have the right to assistance with a second-stage conversion, as provided in paragraph 5 of decision XIX/6: "to also direct the Executive Committee of the Multilateral Fund to make the necessary changes to the eligibility criteria related to the post-1995 facilities and second conversions".

If companies that converted using Multilateral Fund resources are not allowed to take part, this would penalize those companies that showed their faith in the Montreal Protocol and their commitment to change and, furthermore, by altering the rules of the game would cast doubt on the seriousness of the Montreal Protocol, thus making conversion from HCFCs more difficult.

Moreover, in the case of a country in which almost all the industry converted, this would give it little margin to be able to meet the first targets for reducing consumption of HCFCs.

The Secretariat's recommendation that the implementing agencies and the National Ozone Units collect all this information in order to prepare a document that would only be examined in 2009 in order to decide how to proceed would jeopardize the preparation of management plans because there would be no decision on how to deal with these industries.

Furthermore, if the issue is to be re-examined in 2009 (in actual fact, it would start to be examined then), countries would face even greater uncertainties and this could have a negative impact on any transition strategy and on the preparation of national management plans for the phase-out of HCFCs.

With a view to the next replenishment, the Secretariat should provide the TEAP with a full list of companies that have converted to HCFCs with Fund assistance. Although this is historical information, it is valid for giving a first approximation of the companies that should be allowed financing for the total phase-out of HCFCs.

SUBMITTED BY THE GOVERNMENT OF URUGUAY

Original text submitted by the Government of Uruguay

Elementos que la Secretaría debe considerar en el borrador de las directrices para la preparación de los Planes Nacionales de Manejo de HCFCs;

- Aprobación de financiamiento para la elaboración de los "Survey", considerado básico para conocer la situación de cada país.

- Examen de todos los segmentos usuarios de HCFCs, tales como: **Refrigeración** - aire acondicionado estacionario, transporte refrigerado, refrigeración industrial y comercial; **Espumas** - rígidas, flexibles, piel integral y otras; **Solventes, Servicios**;

- Elaboración y actualización del banco de datos de proyectos que han sido implementados con recursos del Fondo Multilateral, con datos actualizados para 2008;

- Definición del formato de presentación del Plan Nacional – utilizar el documento ya aprobado por el ExCom para la presentación de programas nacionales;

- Capacidad instalada en el país (proyectos ya implementados) para complementación con nuevos recursos/proyectos: Centros de Recuperación/Reciclaje para tratamiento de "Pasivo" en el sector de servicios; Capacitación/necesidad de complementar la capacitación;

- Destrucción de las SAO impuras, manejo y logística de destino final de los equipos sustituidos y de las sustancias. Esta prioridad vista a la agilidad de la elaboración del Plan Nacional y debe ser ejecutada en 2008;

- Proyectos de "capacity building" de escuelas que dictan cursos en refrigeración, para que los futuros técnicos, desde ya, obtengan formación en Buenas Prácticas y Responsabilidad Ambiental;

- Planes de eliminación sectorial y gradual, con énfasis en HCFCs de ODP más elevado;

- Incentivo diferenciado al retrofit, en casos aplicables;

- Planes de transferencia de tecnología para gases de bajo impacto en el Clima, con referencia a la accesibilidad a estas nuevas alternativas para cada país (principalmente en relación a la capacitación técnica);

- Restitución para iniciativas relacionadas a la conversión tecnológica, a la recolección de gases y a la disposición de equipos sustituidos para los países que adopten acciones inmediatas.

Consideraciones sobre costos:

Los coeficientes costo-efectividad que se adopten deberán considerar lo siguiente:

- Tener en cuenta los estudios ya hechos por el PNUD sobre este punto.
- los mayores costos que surjan de la diferencia de precios entre el HCFC y los eventuales sustitutos. Esto implica que, se tome ODP o SAO, el **financiamiento debe ser suficiente.**
- Transferencia de la tecnología elegida.
- Ítems de seguridad requeridos por la nueva tecnología, considerando los requisitos de ODP= zero e GWP= bajo;
- Previsión de inclusión de logística de disposición final de los equipamientos que contienen HCFCs retirados del mercado, y destrucción de los HCFCs contaminados o que no puedan utilizarse.
- Comparativamente, la conversión de CFC para HCFC tiene gran variación en potencial de destrucción de la capa de ozono (ODP) que la conversión de CFC para HFC. Ej.: del CFC11 (con ODP 1) para HCFC-141b (de ODP 0,12), hay una reducción de 0,88. Sin embargo, en la conversión de HCFC-141b para HFC, hay poca reducción de ODP.
- En tal sentido, como el costo de tecnología de los HCFCs es mucho más bajo que el costo de sus alternativas, como el HFC, entonces hay una posibilidad del costo incremental ser más grande que el de la conversión de los CFCs.

Fecha límite de admisibilidad de la financiación:

Criterios que se deberían respetar en la elección de la fecha de elegibilidad:

Evitar que se instalen nuevas plantas productoras de equipos y/o productos con HCFC.

Evitar del mismo modo, que se instalen nuevas plantas productoras de HCFC (tal como sucedió como consecuencia de los fondos disponibles por MDL).

Se deberían respetar las plantas que a fines del 2007 hayan informado producción, y que pueda ser verificada.
Asegurar que haya alternativos disponibles que sean técnicamente y económicamente viables y que estén siendo utilizados en un porcentaje considerable en los países Parte del Protocolo de Montreal, realmente en la práctica, porque hay muchos ejemplos pero con pocos equipos en el mercado.

El mercado usuario de las SAO adoptó como alternativa intermediaria los HCFCs y venía actuando con tales substancias de acuerdo con las reglas vigentes del Protocolo de Montreal. Desde la fecha de la 19a Reunión de las Partes dichas reglas cambiaron. El mercado, en su mayoría, tuvo conocimiento de este hecho. Por esa razón, toda empresa que fue establecida a partir de esa fecha dispondría de ese conocimiento, por lo tanto puede/debe asumir el costo de su decisión de usar una sustancia dañosa al medio ambiente y para cuya retirada del mercado fue establecido un cronograma claro.

En tal sentido, la fecha de corte podría ser la misma fecha de la Reunión de las Partes que aprobó el Ajuste al Protocolo de Montreal - la 19a Reunión - donde fue incluido el calendario de eliminación acelerada de los HCFCs, o Diciembre de 2007.

Conversiones en una segunda etapa:

Las empresas reconvertidas en programas del FMPM, deben tener derecho a ser asistidas en una 2da. conversión, tal como lo establece la cláusula 5 de la Decisión XIX/6: “to also direct the Executive Committee of the Multilateral Fund to make the necessary changes to the eligibility criteria related to the post-1995 facilities and second conversions”.

Si no se permite participar a las empresas reconvertidas por el FMPM, constituiría un castigo para aquellas empresas que confiaron en el PM y apostaron al cambio, además, al cambiar las reglas del juego, se pondría en duda la seriedad del PM, pudiendo así, dificultar la reconversión de HCFCs.

Asimismo, en el caso de un país en el cual se ha reconvertido a casi toda su industria, se lo dejaría con poco margen para poder cumplir con las primeras metas de reducción del consumo de HCFC.

La recomendación de la Secretaría referida a que las agencias de implementación y las Unidades Nacionales de Ozono recaben toda esa información para elaborar un documento que recién sería considerado en el 2009 para decidir qué hacer, impediría la elaboración de los planes de gestión por no saber cómo considerar a estas industrias.

Por otro lado, si el tema se volviera a re-examinar en el 2009 (que en realidad se empezaría a examinar en esa fecha), la incertidumbre para los países se alargaría mucho

y podría impactar negativamente en cualquier estrategia de transición y en la elaboración de los planes nacionales de gestión para la eliminación de los HCFC.

La Secretaría debería proporcionar al TEAP, con vistas a la próxima reposición, la lista completa de las empresas que se convirtieron a HCFC con asistencia del fondo. Aunque se trate de información histórica, es válida para tener una primera aproximación de las empresas a las que se debería facilitar financiamiento para la eliminación total de los HCFC.

Annex III

ARTICLE 7 HCFC DATA AND PROJECTIONS (IN ODP TONNES)(1)

HCFCs	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Assumed Baseline/ Freeze	Difference
CONSUMPTION														
HCFC-22	7,535	7,228	7,863	10,188	12,749	12,382	13,621	14,983	16,481	18,129	19,942	21,936	17,305	4,631
HCFC-141B	3,322	4,068	5,482	7,046	5,745	11,157	12,273	13,500	14,850	16,335	17,969	19,766	15,593	4,173
HCFC-142B	81	83	350	334	527	1,903	2,094	2,303	2,533	2,786	3,065	3,372	2,660	712
Other HCFCs	55	62	125	109	178	216	237	261	287	316	347	382	301	81
Total HCFC (3)	10,993	11,440	13,820	17,676	19,199	25,659	28,224	31,047	34,152	37,567	41,323	45,456	35,859	9,597
Growth rates		4%	21%	28%	9%	34%								
Total HCFC (4)							30,278	35,728	42,159	49,747	58,702	69,268	45,953	23,315
CONSUMPTION BY GROUPS OF COUNTRIES														
Largest countries (2)	8,836	9,205	11,461	14,820	16,154	22,453	24,699	27,169	29,885	32,874	36,161	39,778	31,380	8,398
Other countries	2,157	2,236	2,359	2,856	3,045	3,205	3,526	3,878	4,266	4,693	5,162	5,678	4,479	1,199
Total	10,993	11,440	13,820	17,676	19,199	25,659	28,224	31,047	34,152	37,567	41,323	45,456	35,859	9,597
PRODUCTION														
HCFC-22	6,909	7,507	9,249	12,544	14,754	16,853	18,538	20,392	22,431	24,674	27,141	29,855	23,552	6,303
HCFC-141B	1,154	2,246	3,569	4,370	4,786	8,182	9,001	9,901	10,891	11,980	13,178	14,496	11,435	3,060
HCFC-142B	1		234	220	366	1,420	1,562	1,718	1,890	2,079	2,287	2,515	1,984	531
Other HCFCs	-	-	56	37	40	154	169	186	205	225	248	272	215	57
Total HCFC	8,064	9,753	13,108	17,171	19,946	26,609	29,269	32,196	35,416	38,958	42,853	47,139	37,187	9,952
Growth rates		21%	34%	31%	16%	33%								
Total HCFC (4)							31,399	37,050	43,719	51,589	60,875	71,832	47,654	24,178

(1) Article 7 data for all Article 5 countries excluding Republic of Korea, Singapore and United Arab Emirates (as of January 2008).
(2) Seven countries, each with total HCFC consumption above 360 ODP tonnes.
(3) Assumed annual growth rate of 10 percent for both production and consumption projected from actual 2006 HCFC data.
(4) Average annual growth rate based on Article 7 data between 2003-2006 was 18 per cent.