EP

الأمم المتحدة

برنامج الأمم المتحدة للبيئة

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/57/18

2 March 2009

ARABIC
ORIGINAL: ENGLISH

اللجنة التنفيذية للصندوق المتعدد الأطـراف
لتنفيذ بروتوكول مونتريال
الاجتمـاع السابع والخمسـون
مونتريال، 30 مارس/آذار - 3 أبريل/نيسان 2009

برنامج عمل اليونديبي لعام 2009

تعليقات أمانة الصندوق وتوصياتها

1- يطـلب برنـامج الأمم المتـحدة الإنمائي (اليونديبي) من اللجـنة التنفيذية المـوافقة على تخـصيص مبـلغ 684 219 3 دولارا أمريكيا لبرنامج عمله لعام 2009، زائد تكاليف دعم الوكالة البالغة 776 241 دولارا أمريكيا.

2- وترد الأنشطة المقترحة في برنامج عمل اليونديبي لعام 2009 في الجدول 1 أدناه:

الجدول 1: برنامج عمل اليونديبي

البلد	النشاط/المشروع	المبلغ المطلوب (دولار أمريكي)	المبلغ الموصى به (دولار أمريكي)
القسم ألف: الأنشطة الموصى بموافقة شمولية عليها			
ألف1- تجديد مشروعات التعزيز المؤسسي:			
شيلي	مشروع التعزيز المؤسسي (المرحلة الثامنة)	186,550	186,550
جورجيا	مشروع التعزيز المؤسسي (المرحلة السادسة)	60,667	60,667
باكستان	مشروع التعزيز المؤسسي (المرحلة الخامسة)	224,467	224,467
	المجموع الفرعي للقسم ألف1:	471,684	471,684
ألف2- طلبات إضافية تتعلق بخطط إدارة إزالة المواد الهيدروكلوروفلوروكربونية للعنصر الاستثماري:			
أرمينيا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000	30,000
بنغلاديش	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	100,000	100,000
بوليفيا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000	50,000
البرازيل	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	358,000	358,000
شيلي	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	100,000	100,000
كولومبيا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	150,000	150,000
كوستاريكا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	60,000	60,000
كوبا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000	50,000
الجمهورية الدومينيكية	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	60,000	60,000
السلفادور	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000	30,000
جورجيا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000	30,000
إندونيسيا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	90,000	90,000
إيران	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	85,000	85,000
قيرغيزستان	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000	30,000
لبنان	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	100,000	100,000
ماليزيا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	250,000	250,000
نيجيريا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000	50,000
بنما	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000	50,000
باراغواي	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية وتمويل إضافي لإعداد خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	125,000	125,000
بيرو	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	80,000	80,000
سري لانكا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	40,000	40,000
سوازيلاند	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000	30,000
تنزانيا	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000	50,000
أورغواي	إعداد الأنشطة الاستثمارية لخطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	60,000	60,000
	المجموع الفرعي للقسم ألف2:	2,058,000	2,058,000
ألف3- التحقق من خطط إدارة الإزالة النهائية:			
جورجيا	التحقق من خطة إدارة الإزالة النهائية	20,000	20,000
	المجموع الفرعي للقسم ألف3:	20,000	20,000
القسم باء: الأنشطة الموصى بالنظر فيها بصورة فردية			
باء1- المساعدة التقنية للتحقق من التكنولوجيا لعرض التكنولوجيات البديلة للمواد الهيدروكلوروفلوروكربونية:			
مصر	إعداد مشروع للتحقق من استخدام المواد الهيدروكربونية المنخفضة التكاليف لإنتاج الرغاوي	30,000	*

تركيا	إعداد مشروع للتحقق من استخدام زيت وقود ثقيل لإنتاج رغاوي البوليستيرين المسحوبة بالضغط	30,000	*
المجموع الفرعي للقسم باء1:		60,000	
باء2- إعداد مقترحات المشروعات التدليلية الخاصة بالتكنولوجيات البديلة للمواد الهيدروكلوروفلوروكربونية:			
الصين	إعداد مشروع تدليلي لتحويل الوحدات الداخلية من المضخات الحرارية لمصدر الهواء القائمة على الهيدروكلوروفلوروكربون-22	30,000	*
الصين	إعداد مشروع تدليلي لتحويل مكابس التبريد الترددية القائمة على الهيدروكلوروفلوروكربون-22	30,000	*
المجموع الفرعي للقسم باء2:		60,000	
باء3- المساعدة التقنية:			
مشروع عالمي	تعبئة الموارد لتناول مسألة المنافع المناخية وغيرها من المنافع الناتجة عن إزالة المواد الهيدروكلوروفلوروكربونية	250,000	*
المجموع الفرعي للقسم باء3:		250,000	
باء4: مشروعات ريادية في مجال التخلص من نفايات المواد المستنفدة للأوزون:			
بوليفيا	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	30,000	*
البرازيل	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	40,000	*
كولومبيا	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	40,000	*
كوبا	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	30,000	*
مصر	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	40,000	*
غانا	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	30,000	*
الهند	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	60,000	*
أوروغواي	إعداد مشروع ريادي بشأن إدارة مصارف المواد المستنفدة للأوزون	30,000	*
المجموع الفرعي للقسم باء4:		300,000	
المجموع الفرعي للقسمين ألف وباء:		3,219,684	2,549,684
تكاليف دعم الوكالة (7.5 في المائة لإعداد مشروعات التعزيز المؤسسي والأنشطة الأخرى التي تزيد تكاليفها عن 000 250 دولار أمريكي، و9 في المائة للأنشطة الأخرى التي تقل تكاليفها عن 000 250 دولار أمريكي):		241,776	191,526
المجموع:		3,461,460	2,741,210

* مشروعات ينظر فيها بصورة فردية أو معلقة

القسم ألف: الأنشطة الموصى بموافقة شمولية عليها

ألف1- تجديد مشروعات التعزيز المؤسسي:

(أ) شيلي (المرحلة الثامنة): 550 186 دولارا أمريكيا

(ب) جورجيا (المرحلة الخامسة): 667 60 دولارا أمريكيا

(ج) باكستان (المرحلة الخامسة): 467 224 دولارا أمريكيا

وصف المشروعات

3- قدم اليوئنديبي طلبات لتجديد مشروعات التعزيز المؤسسي للبلدان الثلاثة المذكورة أعلاه. ويرد وصف المشروعات الخاصة بهذه البلدان في المرفق الأول بهذه الوثيقة.

توصيات الأمانة

4- توصي أمانة الصندوق بموافقة شمولية على طلبات تجديد مشروعات التعزيز المؤسسي في هذه البلدان على مستوى التمويل الموضح في الجدول 1 من هذه الوثيقة. وقد ترغب اللجنة التنفيذية في تقديم التعليقات الواردة

في المرفق الثاني بهذه الوثيقة إلى حكومات هذه البلدان.

ألف2- طلبات إضافية تتعلق بالعنصر الاستثماري من خطط إدارة إزالة المواد الهيدروكلوروفلوروكربونية:

أرمينيا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000
بنغلاديش	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	100,000
بوليفيا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000
البرازيل	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	358,000
شيلي	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	100,000
كولومبيا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	150,000
كوستاريكا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	60,000
كوبا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000
الجمهورية الدومينيكية	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	60,000
السلفادور	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000
جورجيا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000
إندونيسيا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	90,000
إيران	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	85,000
قيرغيزستان	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000
لبنان	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	100,000
ماليزيا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	250,000
نيجيريا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000
بنما	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000
باراغواي	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	125,000
بيرو	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	80,000
سري لانكا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	40,000
سوازيلاند	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	30,000
تنزانيا	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	50,000
أورغواي	إعداد أنشطة استثمارية في خطة إدارة إزالة المواد الهيدروكلوروفلوروكربونية	60,000

وصف المشروعات

5- طلب اليونديبي أموالاً إضافية لإعداد الأنشطة الاستثمارية المدرجة في خطط إدارة إزالة المواد الهيدروكلوروفلوروكربونية في البلدان الأربعة والعشرين الواردة أعلاه. وقدم اليونديبي في طلباته معلومات أساسية عن استهلاك المواد الهيدروكلوروفلوروكربونية في هذه البلدان والقطاعات التي تُستخدم فيها هذه المواد وكيف تتصل هذه الخطط القطاعية بخطة شاملة لإدارة إزالة المواد الهيدروكلوروفلوروكربونية، ولا سيما بالنسبة للبلدان التي تشترك فيها أكثر من وكالة واحدة في تنفيذ الخطط. وترد معلومات عن كل طلب في الصفحات 4-10 من برنامج عمل اليونديبي المرفق بهذه الوثيقة.

تعليقات الأمانة

6- استعرضت الأمانة جميع الطلبات المشار إليها أعلاه بالتفصيل، وترى أن هناك اتساقا بين المعلومات المقدمة والتمويل المطلوب وبين أحكام المقرر 16/56.

توصيات الأمانة

7- توصي الأمانة بموافقة شمولية على طلبات إعداد الأنشطة الاستثمارية المدرجة في خطط إدارة إزالة المواد الهيدروكلوروفلوروكربونية في البلدان الأربعة والعشرين المذكورة أعلاه، على مستوى التمويل الموضح في الجدول 1 من هذه الوثيقة.

ألف3- التحقق من خطط إدارة الإزالة النهائية:

جورجيا: تحقق مستقل من خطة إدارة الإزالة النهائية: 000 20 دولار أمريكي

8- طالبت اللجنة التنفيذية في المقرر 54/45، بجملة أمور منها، التحقق سنويا من عينة مختارة عشوائياً تبلغ 10 في المائة من خطط الإزالة النهائية الجارية في البلدان ذات الاستهلاك المنخفض. واختارت الأمانة عددا عشوائياً من خطط إدارة الإزالة النهائية الموافق عليها لإجراء هذا التحقق وكانت جورجيا ضمن البلدان المختارة. ودُعي اليونديبي بوصفه الوكالة المنفذة المسؤولة عن خطة إدارة الإزالة النهائية في جورجيا إلى تقديم طلب لتمويل إجراء هذا التحقق، كي يُنظر فيه في هذا الاجتماع في سياق برنامج عمله لعام 2009. ويطلب اليونديبي مبلغ 000 20 دولار أمريكي لإجراء هذا التحقق.

تعليقات الأمانة

9- أبلغ اليونديبي الأمانة بأن المبلغ المطلوب المقترح يتسق مع التكاليف الحالية والأموال التي وافقت عليها اللجنة التنفيذية لعمليات التحقق المماثلة في الاجتماعات السابقة.

توصيات الأمانة

10- توصي الأمانة بموافقة شمولية على هذا الطلب بمستوى التمويل الموضح في الجدول 1 من هذه الوثيقة.

القسم باء: الأنشطة الموصى بالنظر فيها بصورة فردية

باء1- المساعدة التقنية للتحقق من التكنولوجيا لعرض التكنولوجيات البديلة للمواد الهيدروكلوروفلوروكربونية:

مصر: إعداد مشروع للتحقق من استخدام المواد الهيدروكربونية المنخفضة التكاليف لإنتاج الرغاوي: 000 30 دولار أمريكي

تركيا: إعداد مشروع للتحقق من استخدام زيت وقود ثقيل لإنتاج رغاوي البوليستيرين المسحوبة بالضغط: 000 30 دولار أمريكي

وصف المشروعات

11- يقدم اليونديبي طلبين لإعداد مشروعين تدليليين للتحقق من الاستخدام الفعال من حيث التكاليف للتكنولوجيات البديلة ومدى قابلية تطبيقها لاستخدام المواد الهيدروكربونية بدلا من الهيدروكلوروفلوروكربون-141ب في إنتاج الرغاوي الجاسئة والرغاوي ذات الأديم المندمج في مصر، واستخدام زيت الوقود الثقيل HFO-1234ze في إنتاج ألواح رغاوي البوليستيرين في مشروع آخر في تركيا.

12- وسينفذ المشروع الخاص بمصر في شركة Technocom، وهي شركة توزيع المنتجات ذات المواصفات المحددة وموزع للبوليوريتان الكيميائي والمعدات أنشئت عام 1993. ومن شأن نتائج هذا المشروع أن توضح منافع الكحوليات المتعددة المجموعات الهيدروكسيلية القائمة على المواد الهيدروكربونية بالنسبة لشركات توزيع المنتجات ذات المواصفات المحددة.

13- وفي مشروع تركيا، سيتم اختبار عامل جديد يتم استغلاله تجارياً لا يحتوي على قدرات استنفاد أوزون وعامل نفخ، وهو زيت الوقود الثقيل HFO-1234ze، في صناعة رغاوي جاسئة ورغاوي ذات أديم مندمج.

توصيات الأمانة

14- لاحظت الأمانة أن مقترحي اليوئنديبي لا يشتملان على كميات المواد المستنفدة للأوزون المحتمل إزالتها من خلال المشروعين. وقام اليوئنديبي بإبلاغ الأمانة بأن إزالة المواد الهيدروكلوروفلوروكربونية لن تحدث إلا بعد استخدام التكنولوجيات في شركات محددة.

15- وفي الوقت الحالي، سيكون من شأن إعداد المشروع المطلوب أن يسمح لليوئنديبي بتصميم المشروعات وتحديد الشركات في تركيا التي يمكن تجربة استخدام هذه التكنولوجيات فيها. ولاحظت الأمانة أن اليوئنديبي لم يحدد شركة مستفيدة معينة في تركيا ولكنه أشار إلى أن ذلك سيتم خلال عملية إعداد المشروع. وفي حالة مصر، حدد الطلب شركة توزيع المنتجات ذات المواصفات المحددة التي سيتم إعداد المشروع فيها.

16- ولاحظت الأمانة أن اللجنة التنفيذية، من خلال مقررها 43/55 (ه)، دعت الوكالات الثنائية والمنفذة، على نحو عاجل، إلى إعداد وتقديم عدد محدود من مقترحات المشروعات المحددة زمنيا التي تتضمن شركات توزيع المنتجات ذات المواصفات المحددة و/أو موردي المواد الكيميائية لإعداد منتجات كيميائية لاستخدامها مع عوامل النفخ غير المواد الهيدروكلوروفلوروكربونية وتحديث هذه المنتجات إلى الحد الأمثل والتحقق منها. وفي حين أن المقترحين اللذين قدمهما اليوئنديبي لإعداد المشروعين في مصر وتركيا يستوفيان بعض متطلبات هذا المقرر، إلا أنهما لا يشتملان على معلومات بشأن كميات المواد الهيدروكلوروفلوروكربونية التي ستزال. وبالإضافة إلى ذلك، لا يشتمل مقترح تركيا على الشركة التي سينفذ فيها مشروع التحقق.

توصيات الأمانة

17- في ضوء التعليقات الواردة أعلاه، قد ترغب اللجنة التنفيذية في أن تنظر في ما إذا كانت ستوافق أو لا توافق على طلبي إعداد المشروعين في مصر وتركيا.

باء2- إعداد مقترحات المشروعات التدليلية الخاصة بالتكنولوجيات البديلة للمواد الهيدروكلوروفلوروكربونية:

الصين: إعداد مشروع تحويل الوحدات الداخلية من المضخات الحرارية لمصدر الهواء القائمة على الهيدروكلوروفلوروكربون-22 إلى غاز التبريد R-410a في Tsinghua Tongfang Artificial Environment Co. Ltd.: 000 30 دولار أمريكي

الصين: إعداد مشروع تدليلي لتحويل مكابس التبريد الترددية القائمة على الهيدروكلوروفلوروكربون-22 في تطبيقات التخزين في Yantai Moon Group Co. Ltd.: 000 30 ألف دولار أمريكي

وصف المشروعات

18- قدم اليوئنديبي طلبين لإعداد مشروعين تدليليين في قطاع التبريد في الصين. ويرد المقترحان في المرفق 2 من برنامج عمل اليوئنديبي الملحق بهذه الوثيقة.

(أ) أنشئت شركة Tsinghua Tongfang Artificial Environment Co. Ltd. في عام 1993 وهي أكبر شركات تكنولوجيا المضخات الحرارية في الصين. وسيقوم هذا المشروع بتقييم الجدوى التقنية والتجارية من استخدام غاز التبريد R-410a بدلا من المواد الهيدروكلوروفلوروكربونية في مجموعة جديدة من وحدات المضخات التي لا تستخدم المواد الهيدروكلوروفلوروكربونية، وذلك عن طريق إعادة تصميم وإعادة تهيئة النظام ومكوناته.

(ب) أنشئت شركة Yantai Moon Group Co. Ltd في عام 1956، وتتخصص في تصنيع أجهزة

تكييف الهواء ومنتجات التبريد. وسيقوم المشروع بتقييم الجدوى التقنية والتجارية من استخدام بدائل المواد الهيدروكلوروفلوروكربونية في هذا القطاع.

19- وستستخدم أموال إعداد المشروع لوضع مقترحات استثمارية تؤدي، في حالة تنفيذها، إلى تطوير نماذج قابلة للتكرار لاستخدامها في شركات التصنيع المماثلة، وتحديد جدوى الأداء التقني والجدوى الاقتصادية للبدائل التي يتم تجربتها فضلا عن منهجية لحساب تكاليف التحويل في المستقبل.

تعليقات الأمانة

20- استعرضت الأمانة الطلبين وفقاً لمتطلبات المقرر 16/56 (1)، ولاحظت أنهما لا يوفران الأسباب التي تدفع اللجنة التنفيذية إلى اختيار أي منها. وبالإضافة إلى ذلك، لم يشتمل المقترحان على معلومات بشأن استخدام المواد الهيدروكلوروفلوروكربونية في الشركتين، فضلا عن إسهامهما في إجمالي استهلاك المواد الهيدروكلوروفلوروكربونية في البلد. وفيما يتعلق بالطلب الخاص بإعداد مشروع للمكابس الترددية، لم يشر اليونديبي إلى التكنولوجيا التي سيتم تجربتها.

21- وأوضح اليونديبي أن الطلبين قدما استجابة للمقرر 43/55 (و) الذي دعت فيه اللجنة التنفيذية، ضمن أمور أخرى، الوكالات إلى تقديم عدد محدود من المشروعات التدليلية لتحويل المواد الهيدروكلوروفلوروكربونية المستخدمة في القطاعين الفرعيين للتبريد وأجهزة تكييف الهواء إلى تكنولوجيات ذات إمكانية احترار عالمي منخفض لتحديد جميع الخطوات المطلوبة لتقييم ما يرتبط بها من تكاليف. وقدم الطلبان أيضاً استجابة لطلب من حكومة الصين بشأن الحاجة إلى مشروعات تعرض التكنولوجيا الموصوفة لكل تطبيق، والتي ستساعد نتائجها حكومة الصين وصناعة التبريد على تحديد البدائل التي يمكن استخدامها لإزالة استخدام المواد الهيدروكلوروفلوروكربونية في هذه القطاعات. وقد لاحظت الأمانة أيضاً أن المقترحين لا يشتملان على معلومات بشأن كمية المواد الهيدروكلوروفلوروكربونية التي ستزال في إطار المشروعين التدليليين بما يتسق مع المقرر 43/55 (ب).

توصيات الأمانة

22- في ضوء تعليقات الأمانة المذكورة أعلاه، قد ترغب اللجنة التنفيذية في أن تنظر في ما إذا كانت ستوافق أم لا توافق على تمويل الطلبين لإعداد مقترح للمشروعين التدليليين في الصين بما يتسق مع المقرر 43/55 والمقرر 16/56 (1).

باء3- المساعدة التقنية:

مشروع عالمي: تعبئة الموارد لتناول مسألة المنافع المناخية وغيرها من المنافع الناتجة عن إزالة المواد الهيدروكلوروفلوروكربونية: 000 250 دولار أمريكي

وصف المشروعات

23- قدم اليونديبي طلباً يتعلق بمشروع مساعدة تقنية لتعبئة الموارد من أجل تحقيق الحد الأقصى من المنافع المناخية الناتجة عن إزالة المواد الهيدروكلوروفلوروكربونية، على مستوى تمويل يبلغ 000 250 دولار أمريكي زائد تكاليف الدعم. ومرفق بالطلب مذكرة بشأن المفاهيم تصف الأهداف والأنشطة فضلاً عن النتائج المتوقعة. ويرد هذا المشروع في المرفق 3 من برنامج عمل اليونديبي.

24- وسيقوم المشروع ببحث المشروعات المحتملة التي قد تتطلب تمويلا مشتركا للمنافع المناخية الإضافية باستخدام مختلف السيناريوهات، واستعراض المنهجيات الجديدة لتحديد المنافع المناخية الناتجة عن إزالة المواد

الهيدروكلوروفلوروكربونية، وإيجاد منهجيات جديدة، حيثما يكون الأمر ملائماً. كما سيحاول المشروع تقييم المخاطر والالتزامات المالية المتعلقة بمختلف خيارات التمويل مثل تبادل الكربون وتطوير خطة تسويقية للمشترين المحتملين. وستتم جميع هذه الأنشطة بالتعاون عن قرب مع هيئات الصندوق المتعدد الأطراف حسب الاقتضاء.

25- ويقدم الجدول أدناه توزيع التمويل الذي طلبه اليونديبي والبالغ 000 250 دولار أمريكي:

رئيس الفريق (استشاري دولي)	000 45 دولار أمريكي
تكاليف الاستشاريين	000 169 دولار أمريكي
تكاليف السفر	000 36 دولار أمريكي
المجموع	**000 250 دولار أمريكي**

26- ويشير المقترح أيضاً إلى أن اليونديبي سيقوم بتقديم مبلغ مماثل من التمويل العيني من مصادره الخاصة لتعجيل عملية تطوير هذه المنهجيات، وذلك إذا قدم الصندوق المتعدد الأطراف التمويل المشار إليه أعلاه.

تعليقات الأمانة

27- قدمت الفقرة 11 (ب) من المقرر 6/XIX للاجتماع التاسع عشر للأطراف توجيهات إلى اللجنة التنفيذية لإيلاء أولوية، لجملة أمور منها، "توخي بدائل ومواد استعاضة تقلل من الآثار الأخرى على البيئة، بما في ذلك على المناخ، مع مراعاة إمكانيات الاحترار العالمي، واستخدام الطاقة وسائر العوامل الأخرى ذات الصلة"، وذلك عند النظر في مشروعات إزالة المواد الهيدروكلوروفلوروكربونية. ووافقت اللجنة التنفيذية في اجتماعها الرابع والخمسين على مجموعة من المبادئ التوجيهية لإعداد خطط إدارة إزالة المواد الهيدروكلوروفلوروكربونية، ووافقت في الاجتماعين الخامس والخمسين والسادس والخمسين على تمويل إعداد مثل هذه الخطط في 115 بلداً.

28- واشتملت المبادئ التوجيهية الخاصة بإعداد خطط إدارة إزالة المواد الهيدروكلوروفلوروكربونية الموافق عليها في المقرر 39/54 توجيهات لبلدان المادة 5 بأن تستكشف الحوافز المالية وإمكانيات التمويل المشترك لهذه الخطط، والتي قد تكون هامة من أجل أن تؤدي عملية إزالة المواد الهيدروكلوروفلوروكربونية إلى منافع بما يتسق مع أحكام الفقرة 11 (ب) من المقرر 6/XIX المشار إليها أعلاه.

29- وقد لاحظت الأمانة أن نتائج الدراسة التي أقترحها اليونديبي قد تساعد البلدان في بحث خيارات التمويل المشترك أثناء إعداد خطط إدارة إزالة المواد الهيدروكلوروفلوروكربونية. كما لاحظت أن اللجنة التنفيذية لم تقدم إرشادات بعد بشأن كيفية حساب المنافع المناخية الناتجة عن إزالة المواد الهيدروكلوروفلوروكربونية، وما إذا كانت هذه التكاليف ستعتبر تكاليف إضافية في إطار الصندوق المتعدد الأطراف.

30- وتلاحظ الأمانة أن هذه هي المرة الأولى التي يقدم فيها مقترح كهذا ولا توجد حالات سابقة لمثل هذا الطلب، ولا توجد المبادئ التوجيهية اللازمة للنظر فيه. وتلاحظ أيضاً أن هذا المشروع قد لا يمثل بصورة واضحة تكاليف إضافية حسبما هي معرفة في القائمة الإرشادية لفئات التكاليف الإضافية المدرجة في المادة 10 والموافق عليها خلال الاجتماع الرابع للأطراف في بروتوكول مونتريال، وبالتالي فإنها ليست مؤهلة للتمويل. غير أن اللجنة التنفيذية قد ترغب في دراسة المقترح التفصيلي الذي قدمه اليونديبي وأن تنظر في ما إذا كان يستحق المناقشة استناداً إلى إسهامه الايجابي الممكن في عملية إعداد خطط شاملة لإدارة إزالة المواد الهيدروكلوروفلوروكربونية.

تعليقات الأمانة

31- قد ترغب اللجنة التنفيذية في أن تنظر في هذا المقترح في ضوء المعلومات المقدمة أعلاه، وعند مناقشة البند 14 من جدول الأعمال، المُعنون مرفق للدخل الإضافي من القروض والمصادر الأخرى.

باء4: مشروعات ريادية في مجال إدارة نفايات المواد المستنفدة للأوزون:

بوليفيا: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 30 دولار أمريكي

البرازيل: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 40 دولار أمريكي

كولومبيا: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 40 دولار أمريكي

كوبا: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 30 دولار أمريكي

مصر: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 40 دولار أمريكي

غانا: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 30 دولار أمريكي

الهند: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 60 دولار أمريكي

أورغواي: إعداد مشروع تدليلي بشأن إدارة مصارف المواد المستنفدة للأوزون وتدميرها: 000 30 دولار أمريكي

وصف المشروعات

32- قدم اليوئنديبي طلبات لإعداد مشروعات ريادية للتخلص من المواد المستنفدة للأوزون في البلدان الثمانية المذكورة أعلاه.

33- وتهدف المشروعات الريادية في البلدان ذات الاستهلاك المنخفض إلى توفير بيانات وخبرات بشأن جمع المواد الكلوروفلوروكربونية الملوثة بما في ذلك التكاليف والإجراءات اللوجستية المتعلقة بجمعها، وخيارات التخلص منها ووسائل لتحسين استراتيجيات إدارة وتدمير مصارف المواد المستنفدة للأوزون. وبالنسبة للبلدان الأكثر استهلاكاً، ستتناول المشروعات مسائل من بينها نماذج الأعمال المستدامة للتخلص من المواد المستنفدة للأوزون، والجمع والتخزين السليم لنفايات المواد المستنفدة للأوزون، والسياسات العامة الرامية إلى زيادة سهولة وفعالية مناولة نفايات المواد المستنفدة للأوزون والتخلص منها. وفي حالات عديدة، ستستكشف أيضاً المشروعات الريادية إمكانية استخدام تمويل وتبادل الكربون كخيارات للتخلص من نفايات المواد المستنفدة للأوزون وتدميرها.

34- وترد معلومات تفصيلية لكل طلب من الطلبات المذكورة أعلاه في المرفق الأول من برنامج عمل اليوئنديبي الملحق بهذه الوثيقة.

تعليقات الأمانة

35- طلب مؤتمر الأطراف، في الفقرة 2 من المقرر 7/XX، إلى اللجنة التنفيذية أن تنظر على وجه الاستعجال في البدء في مشروعات ريادية قد تغطي جمع المواد المستنفدة للأوزون ونقلها وتخزينها وتدميرها. وفي حين وافقت اللجنة التنفيذية على إدراج مشروعات لتدمير المواد المستنفدة للأوزون في خطط أعمال الوكالات ابتداء من الاجتماع الحادي والخمسين، إلا أنها لم تضع بعد نهجاً لتقييم آثارها، ولا توجد في الوقت الحالي مبادئ توجيهية لإعداد مثل هذه المشروعات. وبالإضافة إلى ذلك، سيكون هذا الاجتماع أول فرصة للجنة كي تنظر في الآثار المترتبة على أحكام الفقرة 2 من المقرر 7/XX فيما يتعلق بعمليات التمويل لديها.

36- وبرغم عدم توافر مبادئ توجيهية، تساءلت الأمانة عن نوع الأنشطة التي سيقوم المشروع الريادي

بتجربتها والأنشطة التي سيغطيها التمويل المطلوب. ووفر اليونديبي تفاصيل محددة لكل طلب من هذه الطلبات بما في ذلك وصفاً للأنشطة التي سيُضطلع بها، والأمور التي سيقوم المشروع بأكمله ببحثها.

37- ولدى استعراض التكاليف المطلوبة لكل بلد، ترى الأمانة أنها في حدود المستويات السابقة المتعلقة بإعداد المشروعات، والتي تشتمل على تكاليف الخبراء والسفر.

توصيات الأمانة

38- قد ترغب اللجنة التنفيذية في أن تنظر في طلبات إعداد المشروعات للبلدان الثمانية المذكورة أعلاه في ضوء تعليقات أمانة الصندوق.

Annex I

INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS

Chile: Renewal of institutional strengthening

Summary of the project and country profile	
Implementing Agency:	UNDP
Amounts previously approved for institutional strengthening (US $):	
Phase I: jun-92	210,907
Phase II: oct-96	113,500
Phase III: jul-98	143,500
Phase IV: dec-00	143,500
Phase V: nov-02	186,550
Phase VI (year 1): apr-05	93,275
Phase VI (year 2): nov-05	93,275
Phase VII: mar-07	186,550
Total	1,171,057
Amount requested for renewal (Phase VIII) (US $):	186,550
Amount recommended for approval for Phase VIII (US $):	186,550
Agency support costs (US $):	13,991
Total cost of institutional strengthening Phase VIII to the Multilateral Fund (US $):	200,541
Equivalent amount of CFC phase-out due to institutional strengthening Phase VIII at US $12.1/kg (ODP tonnes):	n/a
Date of approval of country programme:	1989
ODS consumption reported in country programme (1989) (ODP tonnes):	864.10
Baseline consumption of controlled substances (ODP tonnes):	
(a) Annex A Group I (CFCs) (Average 1995-1997)	828.7
(b) Annex A Group II (Halons) (Average 1995-1997)	8.5
(c) Annex B Group II (Carbon tetrachloride) (Average 1998-2000)	0.6
(d) Annex B Group III (Methyl chloroform) (Average 1998-2000)	6.4
(e) Annex E (Methyl bromide) (Average 1995-1998)	212.5
Latest reported ODS consumption (2007) (ODP tonnes) as per Article 7:	
(a) Annex A Group I (CFCs)	19.2
(b) Annex A Group II (Halons)	0.0
(c) Annex B Group II (Carbon tetrachloride)	0.7
(d) Annex B Group III (Methyl chloroform)	3.5
(e) Annex E (Methyl bromide)	168.0
(f) Annex C Group I (HCFCs)	78.8
Total	270.2
Year of reported country programme implementation data:	2007
Amount approved for projects (US $):	9,622,384
Amount disbursed (February 2009) (US $):	7,833,680
ODS to be phased out (ODP tonnes):	1,081.8
ODS phased out (February) (ODP tonnes):	700.5

1. Summary of activities and funds approved by the Executive Committee:

	Summary of activities	**Funds approved (US $)**
(a)	Investment projects:	4,699,443
(b)	Institutional strengthening:	1,171,057
(c)	Project preparation, technical assistance, training and other non-investment projects:	3,751,884
	Total:	9,622,384

Progress Report

2. During phase VII of the institutional strengthening project in Chile, a major achievement under the lead of the National Ozone Unit was the entry into force of the Rule of the Ozone Law which establishes the quota and licensing system. With regard to its compliance situation, the country has returned to compliance on methyl chloroform consumption. The National Ozone Unit of Chile has also coordinated the implementation of the refrigerant management plan and started the implementation of the national CFC phase-out plan for the servicing sector. Two final umbrella projects in the foams and refrigeration manufacturing sectors that had a slow start are now in implementation. The National Ozone Unit actively participated in several successful national and international meetings and awareness campaigns. It worked diligently in helping the country meet its goals as far as involving the public and private enterprises and in close coordination with the implementing agencies (IA).

Plan of Action

3. During this coming phase, the National Ozone Unit in cooperation with the IAs will work to finalise the project to eliminate solvents, implement the remaining activities under the national CFC phase-out plan and complete all the remaining investment projects in the country. It will also initiate actions to tackle the new challenges posed by the decision XIX/6 on HCFC on ODS related legislation, data collection and reporting and public and targeted awareness campaigns, and prepare the HCFC phase-out management plan (HPMP).

Georgia: Renewal of institutional strengthening

Summary of the project and country profile	
Implementing Agency:	UNDP
Amounts previously approved for institutional strengthening (US $):	
Phase I: month year	70,000
Phase II: month year	46,700
Phase III: month year	60,667
Phase IV: month year	60,667
Phase V: month year	60,667
Total	298,701
Amount requested for renewal (Phase VI) (US $):	60,667
Amount recommended for approval for Phase VI (US $):	60,667
Agency support costs (US $):	4,550
Total cost of institutional strengthening Phase VI to the Multilateral Fund (US $):	65,217
Equivalent amount of CFC phase-out due to institutional strengthening Phase VI at US $12.1/kg (ODP tonnes):	n/a
Date of approval of country programme:	1996
ODS consumption reported in country programme (1996) (ODP tonnes):	21.5
Baseline consumption of controlled substances (ODP tonnes):	
(a) Annex A Group I (CFCs) (Average 1995-1997)	22.5
(b) Annex A Group II (Halons) (Average 1995-1997)	42.5
(c) Annex B Group II (Carbon tetrachloride) (Average 1998-2000)	0.0
(d) Annex B Group III (Methyl chloroform) (Average 1998-2000)	0.0
(e) Annex E (Methyl bromide) (Average 1995-1998)	13.7

Latest reported ODS consumption (2007) (ODP tonnes) as per Article 7:	
(a) Annex A Group I (CFCs)	2.7
(b) Annex A Group II (Halons)	0.0
(c) Annex B Group II (Carbon tetrachloride)	0.0
(d) Annex B Group III (Methyl chloroform)	0.0
(e) Annex E (Methyl bromide)	1.8
(f) Annex C Group I (HCFCs)	1.8
Total	6.3
Year of reported country programme implementation data:	2007
Amount approved for projects (US $):	1,731,326
Amount disbursed (February 2009) (US $):	1,075,965
ODS to be phased out (ODP tonnes):	86.7
ODS phased out (February 2009) (ODP tonnes):	33.8

4. Summary of activities and funds approved by the Executive Committee:

	Summary of activities	Funds approved (US $)
(a)	Investment projects:	550,500
(b)	Institutional strengthening:	298,701
(c)	Project preparation, technical assistance, training and other non-investment projects:	882,125
	Total:	1,731,326

Progress report

5. Georgia reported on a number of important initiatives it has undertaken during Phase V of the institutional strengthening project. These include timely reporting on ODS consumption, training workshops for customs officers, approval of code of practice, training materials and equipment for vocational schools, MB alternatives registration, and a series of awareness raising activities which covered the whole country. The NOU of Georgia has achieved excellent results in coordinating ODSs phase-out activities in Georgia.

Plan of action

6. Over the next 2 years Georgia's action plan intends to focus on the fulfilment of the MP commitments, especially in relation to the 100 percent CFC and halons reduction measure. Planned activities will include coordination of TPMP (including MDI component) and HPMP programmes; provision of support to enhance monitoring of import/export of ODS, as well as monitoring of the effectiveness of registered MB alternatives. Awareness raising will be one the key direction of work.

Pakistan: Renewal of institutional strengthening

Summary of the project and country profile	
Implementing Agency:	UNDP
Amounts previously approved for institutional strengthening (US $):	
Phase I: sep-94	254,958
Phase II: dec-01	172,564
Phase III: dec-03	224,467
Phase IV(year I): mar-07	112,233
Phase IV(year II): nov-07	112,234
Total	876,456
Amount requested for renewal (Phase V) (US $):	224,467
Amount recommended for approval for Phase V (US $):	224,467
Agency support costs (US $):	16,835
Total cost of institutional strengthening Phase V to the Multilateral Fund (US $):	241,302

Equivalent amount of CFC phase-out due to institutional strengthening Phase V at US $12.1/kg (ODP tonnes):	n/a
Date of approval of country programme:	1995
ODS consumption reported in country programme (1995) (ODP tonnes):	2003.6
Baseline consumption of controlled substances (ODP tonnes):	
(a) Annex A Group I (CFCs) (Average 1995-1997)	1,679.4
(b) Annex A Group II (Halons) (Average 1995-1997)	14.2
(c) Annex B Group II (Carbon tetrachloride) (Average 1998-2000)	412.9
(d) Annex B Group III (Methyl chloroform) (Average 1998-2000)	2.3
(e) Annex E (Methyl bromide) (Average 1995-1998)	14.0
Latest reported ODS consumption (2007) (ODP tonnes) as per Article 7:	
(a) Annex A Group I (CFCs)	170.3
(b) Annex A Group II (Halons)	0.0
(c) Annex B Group II (Carbon tetrachloride)	0.0
(d) Annex B Group III (Methyl chloroform)	0.0
(e) Annex E (Methyl bromide)	0.0
(f) Annex C Group I (HCFCs)	183.7
Total	354.0
Year of reported country programme implementation data:	2007
Amount approved for projects (US $):	19,654,576
Amount disbursed (February 2009) (US $):	17,829,368
ODS to be phased out (ODP tonnes):	2,435.5
ODS phased out (as at February 2009) (ODP tonnes):	2,299.3

7. Summary of activities and funds approved by the Executive Committee:

	Summary of activities	**Funds approved (US $)**
(a)	Investment projects:	16,639,465
(b)	Institutional strengthening:	876,456
(c)	Project preparation, technical assistance, training and other non-investment projects:	2,138,655
	Total:	19,654,576

Progress report

8. During its fourth phase, the institutional strengthening (IS) project of Pakistan continued successfully, achieving and maintaining compliance with the Montreal Protocol control measures for CFCs, halons and methyl bromide and have returned to compliance with the requirements for CTC through the implementation of its plan of action. During this phase a number of significant and proactive steps have been taken in order to ensure its 2010 phase-out target is met, including the continued implementation of its phase-out projects and the imposition of a ban on import of CFC-based compressors in July 2008 under the new Trade Policy 2008-09. During the implementation of the fourth phase, through the continued education and training of the customs officers, the Customs authorities in Pakistan seized over 64 metric tons of CFC. The Ozone Unit of Pakistan continued to monitor the ongoing RMP, CTC sector phase-out plan and the halon bank projects as well as implement a number of public awareness campaigns and production of awareness material. The Government of Pakistan also successfully negotiated a phase-out project in its MDI sector which will partially cover the cost of the conversion in two enterprises. The Government of Pakistan has also been elected as Co-Chair of the Open-Ended Working Group (OEWG) of the Montreal Protocol in 2009.

Plan of action

9. The NOU of Pakistan has the following objectives for the fifth phase of the intuitional strengthening project: to monitor the implementation of the separately funded RMP, CTC sector phase-out plan and halon bank project to implement the recently approved MDI conversion plan and to carry out work to support the elaboration of their HCFC phase-out management plan. Further to the implementation of specific projects, the NOU will continue raising public awareness through various activities.

المرفق الثاني

آراء عبرت عنها اللجنة التنفيذية بشأن عمليات تجديد مشروعات التعزيز المؤسسي المقدمة إلى الاجتماع السابع والخمسين

شيلي

1- استعرضت اللجنة التنفيذية التقرير الختامي المقدم مع طلب تجديد مشروع التعزيز المؤسسي لشيلي ولاحظت مع التقدير الإنجازات التي حققتها المجلس الوطني للبيئة أثناء تنفيذ هذه المرحلة الأخيرة. ولاحظت اللجنة التنفيذية بصفة خاصة التقدم الذي أحرزته شيلي في مجال إنشاء وتنفيذ نظام ترخيص محدث يعمل بكامل طاقته. وسوف يكون هذا التقدم بمثابة دعم عظيم لمنسق الأوزون الوطني بالبلد والمساعدة في الإبقاء على الامتثال بأهداف استهلاك المواد المستنفدة للأوزون. وتشعر اللجنة بالارتياح للتقدم المحرز فيما يتعلق بأنشطة عديدة تشمل خطة إدارة غازات التبريد والمساعدة الفنية في إزالة المذيبات المستنفدة للأوزون وهو التقدم الذي أسهم في تحقيق الامتثال في استهلاك ثلاثي كلورو الإيثيلين. وأثنت اللجنة التنفيذية على حكومة شيلي لما أنجزت في المرحلة الراهنة وتعرب عن أملها في أن تواصل شيلي، في العامين القادمين، تنفيذ أنشطتها المخطط لها وفقا للبرنامج بتقدم كبير، وأن تستديم مستوياتها الحالية من تخفيضات المواد الكلوروفلوروكربونية وتعتبرها أساسا لما بعدها.

جورجيا

2- استعرضت اللجنة التنفيذية المعلومات المقدمة مع طلب تجديد التعزيز المؤسسي في جورجيا. وتلاحظ اللجنة التنفيذية أن استهلاك جورجيا المبلغ عنه من الكلوروفلوروكربون استمر في الانخفاض من 8 أطنان من قدرات استنفاد الأوزون في 2005 إلى 3 أطنان من قدرات استنفاد الأوزون في 2007 ونظرا إلى أن خط الأساس للكلوروفلوروكربون في جورجيا هو 22.50 طنا، فإن هذا يعني أن جورجيا استطاعت أن تحقق الامتثال لشرط التخفيض بنسبة 85 في المئة الوارد في بروتوكول مونتريال للمواد الكلوروفلوروكربونية. وأبلغت جورجيا، في العرض المقدم منها، عن عدد من المبادرات المهمة التي اضطلعت بها أثناء الفترة الخامسة من مشروع التعزيز المؤسسي. وحققت وحدة الأوزون الوطنية في جورجيا نتائج ممتازة في تنسيق أنشطة إزالة المواد المستنفدة للأوزون في جورجيا. ويتم تنفيذ كل الأنشطة بطريقة تتسم بكفاءة عالية وفي الوقت المحدد وتنص خطة عمل جورجيا في العامين القادمين على أنها تعتزم التركيز على الوفاء بالتزاماتها في بروتوكول مونتريال، وبخاصة فيما يتعلق بتدبير خفض الكلوروفلوروكربون والهالون بنسبة 100 في المئة. وبالإضافة إلى ذلك، تشمل الخطة البدء في تنفيذ أنشطة تتصل بالمواد الهيدروكلوروفلوروكربونية بناء على مقررات الاجتماع التاسع عشر للأطراف في هذا الصدد.

باكستان

3- استعرضت اللجنة التنفيذية التقرير المقدم مع طلب تجديد مشروع التعزيز المؤسسي في باكستان، وتلاحظ مع التقدير الإجراء العاجل الذي اتخذته باكستان بتقديمها خطة عمل للعودة إلى الامتثال لتدابير مراقبة رابع كلوريد الكربون في بروتوكول مونتريال. وتلاحظ اللجنة التنفيذية أيضا أنه في إطار مشروع التعزيز المؤسسي، اتخذت باكستان خطوات ملموسة لإزالة استهلاكها من المواد المستنفدة للأوزون، وعلى وجه التحديد التقدم في تنفيذ مشروع بنك الهالونات، وخطة إدارة غازات التبريد والإزالة القطاعية لرابع كلوريد الكربون، وتنظيم حلقات عمل لتدريب فنيي التبريد وموظفي الجمارك وتؤيد اللجنة التنفيذية بشدة جهود باكستان في خفض استهلاك المواد المستنفدة للأوزون. ولذلك فإن اللجنة التنفيذية تأمل في أن تواصل باكستان، في العامين القادمين، تنفيذ برنامجها القطري وأنشطة الإزالة الوطنية بنجاح كبير لخفض المستويات الحالية لاستهلاك المواد المستنفدة للأوزون. وتود اللجنة التنفيذية أيضا أن تهنئ حكومة باكستان على انتخابها رئيسا مشاركا لاجتماع فريق العمل المفتوح العضوية التاسع والعشرين للأطراف في بروتوكول مونتريال.

EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL
(57th Meeting, 30 March – 3 April 2009, Montreal)

2009 WORK PROGRAMME

OF THE

UNITED NATIONS DEVELOPMENT PROGRAMME

Request for Project Preparation and Non-Investment Projects at the 57th Executive Committee Meeting

18 February 2009

2009 UNDP WORK PROGRAMME

57th Executive Committee Meeting (30 March –3 April 2009, Montreal)

This Work Programme document contains all non-investment and project preparation programmes that are being requested at the 57th Meeting of the Executive Committee. These requests amount to US$ 3,219,684 plus US$ 241,776 of support cost, as elaborated upon below.

1. Institutional Strengthening Renewal Requests.

The following Institutional Strengthening Renewal Requests are being submitted at the 57th meeting of the Executive Committee:

NR	COUNTRY	TITLE	PROJECT VALUE US$	SUPPORT COST US$	TOTAL FUNDING US$
1	Chile	Institutional Strengthening Phase 8	186,550	13,991	200,541
2	Pakistan	Institutional Strengthening Phase 5	224,467	16,835	241,302
3	Georgia	Institutional Strengthening Phase 6	60,667	4,550	65,217
Subtotal Institutional Strengthening Projects			**471,684**	**35,376**	**507,060**

Documents for the IS Renewal Request above were submitted separately by UNDP.

2. Verification of a Terminal Phaseout Management Plan.

As communicated by the MLS Secretariat in their email of 10 Feb 2009, and in accordance with decision 45/54(d) of the Executive Committee , UNDP will have to conduct an independent verification of the TPMP in Georgia in 2009, for which funding is being requested as follows:

NR	COUNTRY	TITLE	PROJECT VALUE US$	SUPPORT COST US$	TOTAL FUNDING US$
1	Georgia	Independent Verification of the TPMP	20,000	1,800	21,800

3. Pilot projects in ODS waste management

NR	COUNTRY	TITLE	PROJECT VALUE US$	SUPPORT COST US$	TOTAL FUNDING US$
1	Bolivia	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
2	Brazil	PRP for Demonstration on ODS Banks Mgt and Destruction	40,000	3,000	43,000
3	Colombia	PRP for Demonstration on ODS Banks Mgt and Destruction	40,000	3,000	43,000
4	Uruguay	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
5	Ghana	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
6	Cuba	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
7	Egypt	PRP for Demonstration on ODS Banks Mgt and Destruction	40,000	3,000	43,000
8	India	PRP for Demonstration on ODS Banks Mgt and Destruction	60,000	4,500	64,500
Subtotal PRP Pilots on ODS Waste Management and Destruction			**300,000**	**22,500**	**322,500**

The projects above are proposed as response to the Decision XX/ 7 (2) from the Meeting of the Parties who requested 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. As an initial priority, the Executive Committee might consider projects with a focus on assembled stocks of ODS with high net global warming potential, in a representative sample of regionally diverse Parties operating under paragraph 1 of Article 5. It is understood that this initial priority would not preclude the initiation of other types of pilot projects including on halons and carbon tetrachloride should these have an important demonstration value. In addition to protecting the ozone layer, these projects will seek to generate practical data and experience on management and financing modalities, achieve climate benefits, and would explore opportunities to leverage co-financing.

For each PRP request about 40% of the budget would be used for international consultants, 40% for national consultants (or local subcontracts) and 20% for workshops/ sundries.

Annex 1 of this document provides more detailed general information on the proposals and also on each of the 8 above-mentioned ODS waste pilot requests, which provides justifications as to why they were included and what synergies will be sought for, from other funding sources.

4. Requests for Activities related to HCFCs

4.1. Additional Preparatory Funds for HCFC Phase-out Management Plans (HPMPs)

Proposals are described in the following table and would result in individual projects, umbrella projects or sector plans which would be submitted together with the HPMP for funding in 2010. Here again, for each PRP request about 40% of the budget would be used for international consultants, 40% for national consultants (or local subcontracts) and 20% for workshops/ sundries.

Nr	Country	Title	Budget	Support Costs	Total	Explanation
1	Armenia	PRP for HPMP-investment activities: HCFC Elimination at the SAGA Refrigeration Manufacturing Plant.	30,000	2,250	32,250	Armenia reported 4.4 ODP tones of HCFC-22 in 2007. The funds would be used for the elimination of HCFCs at the SAGA commercial refrigeration manufacturing plant, which according to the Government's official request, is the largest HCFC-consuming enterprise in Armenia.
2	Bangladesh	PRP for HPMP-investment activities: HCFC elimination through a Foam Sector Phaseout Plan.	50,000	3,750	53,750	Bangladesh has reported 32.23 ODP tones of HCFC-22 and 4.95 ODP tones of HCFC-141b in 2007. The Government requested UNDP to prepare investment activities in different HCFC manufacturing sectors. There are two main manufacturing sectors in Bangladesh that use HCFC. These are the refrigeration sector which consumes close to 40% of the total HCFC 22 consumption of Bangladesh and the Foam Sector. These two sectors have not been previously characterized and it is anticipated that due to the large consumption volumes in the Refrigeration sector (over 250 MT), additional funding will be required to properly identify the users and develop specific options for phase out in some of the manufacturers. It is expected that the additional funding will be necessary to conduct a number of sector stakeholder consultations, additional data collection, additional analysis and identification of options of alternatives, including looking at climate neutral options. The same will be expected in the Foam Sector.
3	Bangladesh	PRP for HPMP-investment activities: HCFC elimination through a Refrigeration Sector Phaseout Plan.	50,000	3,750	53,750	See previous Bangladesh-entry.
4	Bolivia	PRP for HPMP-investment activities: HCFC elimination in the foam sector phaseout plan.	50,000	3,750	53,750	Bolivia reported in 2007 a total of 4 ODP Tones of HCFC consumption. According to Decision 56/16 Bolivia could request up to US$ 100,000 for preparatory activities in the manufacturing sectors. The present request for US$50,000 is only for the foams manufacturing sector where there are as a minimum 2 companies using HCFC 141b according to information gathered from previous activities in the country. However, this information has to be properly collected and companies visited to determine baseline. This is the only request to be done by UNDP. GTZ as Lead agency has been informed and it may request additional funding within the Decision limits for other manufacturing sectors.

Nr	Country	Title	Budget	Support Costs	Total	Explanation
5	Brazil	PRP for HPMP-investment activities: HCFC elimination in the foam manufacturing sector.	150,000	11,250	161,250	Brazil has reported 1,545.2 ODP tones of HCFCs in 2007. There are 600 companies identified in the foams sector, nine companies in the air conditioning manufacturing sector, at least one company using HCFC 141b as solvent in another manufacturing sector and an undetermined number of companies using an average of 15 Tones of HCFC 22 as process agent in the chemical industry. The funds requested will be distributed as follows: 150,000 for the foams sector, US$ 80,000 for the refrigeration manufacturing sector, US$ 80,000 for the air conditioning manufacturing sector and the remaining funds (US$48,140) for solvents use in the manufacturing sector (including process agent). The balance of eligible PRP funds (US$ 400,000 - 358,140) would be used by GTZ for its work with 2 companies in the XPS sector.
6	Brazil	PRP for HPMP-investment activities: HCFC elimination in the refrigeration manufacturing sector.	80,000	6,000	86,000	See previous Brazil-entry.
7	Brazil	PRP for HPMP-investment activities: HCFC elimination in the air conditioning manufacturing	80,000	6,000	86,000	See previous Brazil-entry.
8	Brazil	PRP for HPMP-investment activities: HCFC elimination for the use of solvents in the manufacturing sector.	48,000	3,600	51,600	See previous Brazil-entry.
9	Chile	PRP for HPMP-investment activities: HCFC elimination in the foam manufacturing sector.	50,000	3,750	53,750	Chile has reported 78.8 ODP tones of HCFCs in 2007. Through previous activities it is expected that at least 4 companies are using HCFC 141b and 1 is using HCFC 22 in the production of foams. In addition at least two companies are using HCFC 22 and one company is using HCFC 141b in the production of commercial refrigeration. With the preparatory funds data will be properly collected to identify use of HCFC 141b and HCFC 22 and include eligible user companies in sector and subsector plans for foams and refrigeration.
10	Chile	PRP for HPMP-investment activities: HCFC elimination in the refrigeration manufacturing sector.	50,000	3,750	53,750	See previous Chile-entry.

Nr	Country	Title	Budget	Support Costs	Total	Explanation
11	Colombia	PRP for HPMP-investment activities: HCFC elimination in the manufacture of foams in the refrigeration and other foams sectors.	150,000	11,250	161,250	Colombia has reported 206.2 ODP tones of HCFCs in 2007. HCFC 141b is consumed by the domestic & commercial refrigeration sectors in the manufacturing of rigid foam, as well as in several foam subsectors . Through previous activities around 23 companies converted to HCFC 141b plus 36 out of 543 SMEs were identified. The remaining companies need to be verified as well as companies that were using HCFC 141b from the outset. With the PRP funds, sector plans will be prepared. In addition, HCFC 22 is being used by multiple companies in the production of refrigeration chambers and installation of commercial refrigeration systems among others. The total PRP eligible for Colombia is US$ 200,000. However, only US$ 150,000 will be requested at this meeting to address the foams manufacturing sector. The additional US$50,000 will be requested for the refrigeration sector at a future meeting.
12	Costa Rica	PRP for HPMP-investment activities: HCFC elimination in the refrigeration manufacturing sector.	60,000	4,500	64,500	Costa Rica has reported 15.8 ODP tones of HCFCs in 2007. The government has informed UNDP that they have 3-14 enterprises in the manufacturing sector. Based on knowledge about the sectors (commercial and domestic refrigeration) it appears that approximately 5 companies use HCFC 141b. UNDP would like to request 60.000 US$ now for the refrigeration sector and would like to reserve the remaining eligible US$ 40,000 for the foams sector later.
13	Cuba	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors.	50,000	3,750	53,750	Cuba has reported 14.4 ODP tones of HCFCs in 2007. The government has informed UNDP that they have 3-14 enterprises in the manufacturing sector. Based on knowledge about the commercial refrigeration sectors in Cuba, it appears that approximately 2 companies use HCFC 141b. UNDP would like to request 50.000 US$ instead of the original amount of US$ 80,000.
14	Dominican Rep	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors.	60,000	4,500	64,500	The Dominican Republic has reported 51.2 ODP tones of HCFCs in 2007. The government has informed UNDP that they have 3-14 enterprises in the manufacturing sector. Based on knowledge about the sectors (Rigid Foam and commercial refrigeration), it appears that approximately 4 companies use HCFC 141b. UNDP would like to request 60.000 US$ to address the foam sector.
15	El Salvador	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing at one enterprise.	30,000	2,250	32,250	El Salvador has reported 16.7 ODP tones of HCFCs in 2007. The government has informed UNDP that they have 3-14 enterprises in the manufacturing sector. Based on knowledge about the Domestic Refrigeration sector in El Salvador, it appears that approximately 1 company uses HCFC 141b. UNDP would like to request 30.000 US$ to address this 141b consumption at the enterprise.
16	Georgia	PRP for HPMP-investment activities: HCFC elimination in the assembly of refrigeration equipment.	30,000	2,250	32,250	Georgia has reported 1.8 ODP tones of HCFC-22 in 2007. As mentioned in the business plan letter received from the NOU, there are companies using HCFCs which assemble commercial refrigeration equipment. Georgia

Nr	Country	Title	Budget	Support Costs	Total	Explanation
						mentioned this is a very important area of work for the country which needs to be addressed.
17	Indonesia	PRP for HPMP-investment activities: HCFC elimination in the refrigeration manufacturing sector (except air-to-air air-conditioning).	70,000	5,250	75,250	Indonesia has reported 286.8 ODP tones of HCFCs in 2007. The requested funding would be used for developing individual/group projects and sector plans for the Air Conditioning and Refrigeration sectors (defined as per Decision 56/16 (e) to be incorporated in Indonesia's HPMP for compliance with 2013/15 targets. As per the outputs of the HCFC survey carried out in 2005-2007, these two sectors have a combined over 300 enterprises engaged in manufacturing activities and represent over 60% of the HCFC consumption in manufacturing in Indonesia. Indonesia's 2007 HCFC consumption was in the 101-300 ODP Tones range and hence qualifies for an additional US$ 200,000 for PRP for investment activities of which US$ 92,000 was allocated to UNDP.
18	Indonesia	PRP for HPMP-investment activities: HCFC elimination in the air-to-air air conditioning sector	20,000	1,500	21,500	See previous Indonesia-entry
19	Iran	PRP for HPMP-investment activities: HCFC elimination in the refrigeration manufacturing sector (except air-to-air airconditioning).	45,000	3,375	48,375	Iran has reported 191.4 ODP tones of HCFCs in 2007. The requested funding would be used for developing individual/group projects and sector plans for the Air Conditioning and Refrigeration Sectors (plus part of the Foam Sector - rigid foam SMEs) to be incorporated in Iran's HPMP for compliance with the 2013/15 targets. As per the outputs of the HCFC survey carried out in 2005-2007, each of these sectors have 100 or more enterprises engaged in manufacturing activities and represent over 60% of the overall HCFC consumption in manufacturing in Iran. Iran's 2007 HCFC consumption was in the 101-300 ODP Tones range and hence qualifies for an additional US$ 200,000 for PRP for investment activities.
20	Iran	PRP for HPMP-investment activities: Firefighting and Solvents Sectors	10,000	750	10,750	See previous Iran-entry
21	Iran	PRP for HPMP-investment activities: HCFC elimination Rigid Foams Subsector Plan	30,000	2,250	32,250	See previous Iran-entry
22	Kyrgyzstan	PRP for HPMP-investment activities: HCFC elimination in the assembly of refrigeration equipment.	30,000	2,250	32,250	Kyrgyzstan has reported 1.6 ODP tones of HCFCs in 2007. As mentioned in the business plan letter received from the NOU, there are companies using HCFCs which assemble commercial refrigeration equipment. The NOU mentioned that this is a very important area of work for the country which needs to be addressed.

Nr	Country	Title	Budget	Support Costs	Total	Explanation
23	Lebanon	PRP for HPMP-investment activities: HCFC elimination in the refrigeration manufacturing sector (except air-to-air airconditioning).	60,000	4,500	64,500	Lebanon has reported 19.8 ODP tones of HCFCs in 2007. The requested funding would be used for developing individual/group projects and sector plans in all sectors (defined as per Decision 56/16 (e) to be incorporated in Lebanon's HPMP for compliance with 2013/15 targets. As per the outputs of the HCFC survey carried out in 2005-2007, Lebanon has 40 enterprises in the Foams Sector and 140 enterprises in the Air Conditioning and Refrigeration sectors engaged in manufacturing activities. Lebanon's 2007 HCFC consumption was in the 0-100 ODP Tones range and hence qualifies for an additional US$ 100,000 for PRP for investment activities.
24	Lebanon	PRP for HPMP-investment activities: HCFC elimination in the air-to-air air conditioning sector	15,000	1,125	16,125	See previous Lebanon-entry
25	Lebanon	PRP for HPMP-investment activities: HCFC elimination Foams Sector Plan	25,000	1,875	26,875	See previous Lebanon-entry
26	Malaysia	PRP for HPMP-investment activities: HCFC elimination in the refrigeration manufacturing sector (except air-to-air airconditioning).	120,000	9,000	129,000	Malaysia has reported 413.7 ODP tones of HCFCs in 2007. The requested funding would be used for developing individual/group projects and sector plans in all sectors (defined as per Decision 56/16 (e) to be incorporated in Malaysia's HPMP for compliance with 2013/15 targets. As per the outputs of the HCFC survey carried out in 2005-2007, there are about 200 enterprises in the Foam Sector and over 500 enterprises in the Refrigeration and Air Conditioning sectors, engaged in manufacturing activities. Malaysia's 2007 HCFC consumption was in the 301-500 ODP Tones range and hence qualifies for an additional US$ 250,000 for PRP for investment activities.
27	Malaysia	PRP for HPMP-investment activities: HCFC elimination in the air-to-air air conditioning sector	30,000	2,250	32,250	See previous Malaysia-entry
28	Malaysia	PRP for HPMP-investment activities: HCFC elimination Foams Sector Plan	100,000	7,500	107,500	See previous Malaysia-entry
29	Nigeria	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors.	50,000	3,750	53,750	Nigeria has reported 96.0 ODP tones of HCFCs in 2007. Funding would be used to develop a foams sector strategy which would align itself with the HPMP. An attempt will be made to cover the various foam subsectors in the country. The remaining US$ 50,000 of eligible PRP funding would go to UNIDO for the RAC and solvents sectors.
30	Panama	PRP for HPMP-investment activities: HCFC elimination Foams Sector Plan	50,000	3,750	53,750	Panama has reported 15.0 ODP tones of HCFCs in 2007. The government has informed UNDP that they have 3-14 enterprises in the manufacturing sector. Based on knowledge about the sectors in Panama (Flexible and Rigid Foam), it appears that approximately 3

Nr	Country	Title	Budget	Support Costs	Total	Explanation
						companies use HCFC 141b. UNDP would like to request 50.000 US$ at this time.
31	Paraguay	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors.	60,000	4,500	64,500	Paraguay has reported 14.7 ODP tones of HCFCs in 2007. Although there is no report of HCFC 141b consumption in 2007 there is consumption of HCFC 142b in the country. Information is being gathered to understand if this consumption corresponds to XPS sector or if it maybe HCFC 141b that has not been properly reported. Several companies in the foam and commercial refrigeration sector could be using HCFC 141b but information has to be properly registered. UNDP would like to request 60.000 US$ at this time.
32	Paraguay	PRP for HPMP's Overarching Strategy.	65,000	4,875	69,875	As per Decision 56/16 according to the HCFCs consumption level Paraguay could request US$150,000 for HPMP Preparation. At the 56th Meeting US$ 85,000 were approved; the remaining funding is requested at this meeting.
33	Peru	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors.	80,000	6,000	86,000	Peru has reported 43.4 ODP tones of HCFCs in 2007. Through data gathered from previous activities in the country, it has been found that there are at least six companies producing foams in the country and as minimum two of them are using HCFC 141b. However no data has been gathered from some companies and it is expected there will be more companies using HCFC 141b.
34	Sri Lanka	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors as well as the solvents sector.	40,000	3,000	43,000	Sri Lanka has reported 15.4 ODP tones of HCFCs in 2007. It has been estimated from the HCFC survey done for Sri Lanka that there are approximately 143 manufacturing enterprises in Sri Lanka consuming HCFC. The survey was not able to properly characterize the enterprises and it is anticipated that additional funding will be required to carry out this activity as well as looking at technological issues for these manufacturers especially in the production of commercial equipment, which represents the largest sub-sector in Sri Lanka. The Government requested UNDP to prepare investment activities in different sectors in Sri Lanka. The World Bank has included in its WP the prp request for the Refrigeration and AC sectors totaling US$ 60,000. As result, UNDP decreased its request from US$ 100,000 to US$ 40,000.
35	Swaziland	PRP for HPMP-investment activities: HCFC Elimination at the Palfridge Domestic Refrigeration Manufacturing Plant.	30,000	2,250	32,250	Swaziland's 2007 HCFC consumption was 5.6 ODP tones of which about 80% is believed to be consumed at PalFridge(manufacturing of domestic refrigerators). This may be the only HCFC-consuming manufacturing facility in Swaziland. While the NOU requested UNDP's assistance for this plant, GTZ has meanwhile offered to be a partner in this project.

Nr	Country	Title	Budget	Support Costs	Total	Explanation
36	Tanzania	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors.	50,000	3,750	53,750	Tanzania has reported 2.1 ODP tones of HCFCs in 2007. According to the NOU, there are three foam producing companies in the country.
37	Uruguay	PRP for HPMP-investment activities: HCFC elimination in foams used in the refrigeration manufacturing and other foam sectors.	60,000	4,500	64,500	Uruguay has reported 18.0 ODP tones of HCFCs in 2007. The spray/PIP sector in Uruguay has around 14 manufacturing companies, several of them consuming HCFC 141b. With the preparatory funds data will be properly collected to identify use of HCFC 141b and include eligible user companies in sector plan.
	TOTAL		2,058,000	154,350	2,212,350	

4.2. Preparatory Funds for Technology-Validation and Demonstration Projects for HCFC alternative technologies

As was the case during the last meeting, the demonstration / technology-validation projects that will result from the following project preparation requests will be submitted as individual country-projects. As for previous PRP-requests, about 40% of the budget would be used for international consultants, 40% for national consultants (or local subcontracts) and 20% for workshops/ sundries.

4.2.1 Preparatory Funds for Technology-Validation Technical Assistance Projects for HCFC alternative technologies

UNDP will be submitting a limited number of Technology Validation projects in 2009 as described in the narrative of our business plan. These are technical assistance projects such as those that were already approved at the 56th meeting of the Executive Committee for Mexico and Brazil. 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. 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 two projects as it is pure technology-validation at the level of a system house. Having said that, all follow-up projects that would benefit from the results of these projects (phase 2) would be submitted as INV projects with relevant ODP-phaseout.

COUNTRY	TITLE	PROJECT VALUE US$	SUPPORT COST US$	TOTAL FUNDING US$	Explanation
Egypt	PRP for Validation of low-cost HC in Foams	30,000	2,250	32,250	Preparation funds are requested for a validation project that would evaluate the feasibility and cost reduction options in the use of hydrocarbons to replace HCFC-141b in foam applications (rigid and integral skin) in cooperation with a system house and equipment manufacturers and validate these subsequently at selected recipients. Hydrocarbons as foam blowing agents have been extensively applied to replace CFCs but the use was so far limited by high related investment. Lowering the costs of using hydrocarbons would make an environmental beneficial technology more affordable in an Article 5 context where 80% of the enterprises qualify as SME. This project will be designed around Technocom, an Egyptian system house which was founded in 1993. It is 100% Egyptian owned and is a large PU chemical and equipment distributor and a PU system house. There is no export to other countries. The Govt has asked UNDP to include this project in its business plan.
Turkey	PRP for Validation of HFO in XPS Foams	30,000	2,250	32,250	Preparation funds are requested for a pilot project that would evaluate HCFC replacement in extruded polystyrene foam boardstock by HFO-1234ze, a newly commercialized zero ODP/low GWP blowing agent.

					Turkey is one of the larger producers of this product which has currently very few validated HCFC replacement options that are environmentally acceptable. UNDP possesses sufficient information regarding the technology to be validated The Govt agreed with UNDP developing this pilot proposal as proposed, but wants to get more information before deciding on the final selection of the local technology developer. UNDP may be able to provide more information at the 57th meeting itself.
TOTAL		60,000	4,500	64,500	

4.2.2 Preparatory Funds for Demonstration Projects for HCFC alternative technologies

The following two requests for project preparation would lead to demonstration projects, and they would have ODP phase out associated with them.

COUNTRY	TITLE	PROJECT VALUE US$	SUPPORT COST US$	TOTAL FUNDING US$	Explanation
China	Demonstration project for conversion of HCFC-22 based residential air source heat pump units to R-410A at Tsinghua Tongfang Artificial Environment Co. Ltd.	30,000	2,250	32,250	The project concept is attached separately – see annex 2. Upon successful completion, this demonstration project will (a) Develop a replicable project model for HCFC-22 reductions/phase-out for residential air source heat pump unit applications (b) Establish technical performance and economic feasibility of R-410A as the refrigerant residential air source heat pump units application 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 residential air source heat pump units application and similar enterprises and (d) Facilitate elimination of about 70 metric ones of HCFC-22 consumption at Tsinghua Tongfang Artificial Environment Co. Ltd. The key impact of the project upon successful completion would be to eliminate 70 metric ones of HCFC-22 at Tsinghua Tongfang Artificial Environment Co. Ltd. And to further facilitate reduction or elimination of HCFC-22 by the residential air source heat pump unit manufacturers in China.
China	Demonstration project for conversion of HCFC-22 based reciprocating refrigeration compressors for cold storage applications at Yantai Moon Group Co. Ltd.	30,000	2,250	32,250	The project concept is attached separately – see annex 2. Upon successful completion, this demonstration project will (a) Develop a replicable project model for HCFC-22 reductions/phase-out for reciprocating refrigeration compressors for cold storage 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 about 200 metric Tones of HCFC-22 consumption by the downstream users of reciprocating refrigeration compressors manufactured by Yantai Moon Group Co. Ltd. The key impacts of the project upon successful completion would be to facilitate reduction or elimination of HCFC-22 in the downstream users of compressors manufactured by Yantai Moon Group Co. Ltd. by ensuring domestic availability of proven non-HCFC compressors in China.

TOTAL		60,000	4,500	64,500	

Additional clarifications were requested from UNDP on these two China proposals and our detailed responses are provided herewith:

Demo for conversion of HCFC-22 based reciprocating refrigeration compressors for cold storage (Yantai Moon Ltd)

- *Please specify the technology that will be demonstrated. While a list of alternatives is provided, it is unclear which one will be specifically demonstrated. As the Executive Committee will have to select the demo projects it will approve based on decision 55/43, the current proposal does not provide sufficient information to allow for a recommendation of a specific technology/alternative that will be demonstrated. It will be appreciated if this can be clarified as soon as possible.*

At this point (project preparation), the selection of technology cannot be finalized for various reasons. For the application (cold storage systems) for which Yantai Moon manufactures HCFC-22 based reciprocating compressors, Ammonia and CO_2 are unlikely to be considered, because this would require a complete change of products and manufacturing facilities (not conversion of existing facility) due the fundamentally different technical considerations, product design and materials involved, in addition to health and safety issues. HCs cannot be applied for this size/capacity of compressors due to safety reasons. Feasible and cost-effective conversion of the existing facility can only be carried out with alternatives that would not involve a completely new product. Therefore HFC-based alternatives are likely to be selected. Within the HFC-based options, there would not be a significant difference in approach for selection. Moreover, since climate impact of the alternative needs to be considered (both in terms of GWP and energy efficiency), Yantai Moon would need to evaluate the available HFC-based technologies including viable emerging low-GWP options, and select the optimum one that meets the parameters (technical, environmental, safety, efficiency, etc which are already described in detail in the proposal). The demonstration project proposal resulting from this preparation funding request would identify the alternative technology.

- *It is also noted that this company was identified as a top priority for implementation of an ammonia refrigeration compressor project under its CFC phase out programme. Did the company convert its compressors to ammonia? If so, from what date and what percent of the production was converted? How much of the current production is still HCFC-based and why can't they convert to ammonia?*

The earlier MLF-funded project referred to was CPR/REF/16/INV/114 (WB implemented). In that project, the company did not convert its CFC-12 based compressors to Ammonia. It set up a new production facility (3,200/year) for small and medium open-type reciprocating ammonia-based compressors, which did not directly displace the existing production, but replaced CFC-12 based production of such compressors by 7 other enterprises. As per MLF records, that project was completed in May 1999. As per the latest data (2008), Yantai Moon produced 1,290 units, of which 258 units were HCFC-22 based, mainly serving large cold storage applications, with individual refrigerant charge exceeding 750 kg. As mentioned in the earlier paragraph, ammonia technology is quite different and

conversion of existing facility would not be possible – instead a completely new product and facility suited for ammonia would be needed. With HFC-based technology, the existing facility can be retrofitted and adapted.

- *Kindly also confirm that the HCFC consumption indicated in the cover page of 40 metric Tones is the amount of tonnage associated with this project and is the volume that will be potential reduced once the project is completed?*

As mentioned in the cover sheet of the Yantai Moon proposal, 200 metric Tones of HCFC-22 consumption would be addressed (indirectly at Yantai Moon), at the downstream users of the compressors produced by Yantai Moon. This would appropriately be elaborated upon within the main demonstration project proposal.

Demo project for the conversion of HCFC-based residential air source heat pumps to R-410a (Tsinghua company)

- *Please confirm that the indicated amount of 70 metric Tones is the amount of phase out that will be associated with this project.*

Confirmed.

- *The project description notes that this enterprise has developed its own core technology, core products as well as core systems, presumably for R-410 a. Will this demo project contribute allow for replication of the same technology to other manufacturing companies in the country that make the same products and enable them to use the same technology?*

Yes. However, this is meant to be informational. Core technology refers to design elements which may not be necessarily related only to the refrigerant used or the product for which this demonstration project is proposed, namely, air source heat pump units. The enterprise also manufactures water and ground source heat pump units, lithium bromide absorption heat pump units, water heaters, fan coil units, air handling units and air purifiers, for which it has developed the core technology.

Both the above preparation funding requests are consistent with ExCom Decision 55/43 (b) and (f).

5. Resource Mobilization to Address Climate Co-Benefits in HCFC phaseout

NR	COUNTRY	TITLE	ODS	PROJECT VALUE US$	SUPPORT COST US$	TOTAL FUNDING US$
	Global	Resource Mobilization to address climate co-benefits in HCFC Phaseout	GLO	250,000	18,750	268,750

During the Inter-Agency Coordination Meeting held in Montreal in January 2009, the MLF Secretariat presented the components of a paper for a potential Facility to look for ways to mobilize resources to add to existing US$ 1.2 million originated from the Thai Chillers

projects, to address the climate co-benefits in HCFC phaseout. Agencies were invited to comment on various options presented by the Secretariat and to suggest other options for the use of this Facility.

UNDP has included US $250,000 in its 2009 MLF business plan for the purpose of resource mobilization to address climate co-benefits. 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 its MDG-Carbon Facility. UNDP has also a large portfolio of Climate Change projects in Energy Efficiency and Energy Access to the Poor projects (funded by the GEF and a diversity of donors) as well as experience in resource mobilization and sequencing finance for environment and energy solutions in an integrated way.

UNDP's experience 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. UNDP will tap into the experience and expert advice from the team of its fully operational MDG Carbon Facility, to deliver on options to address the matter.

If the requested 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.

At the meeting, the Secretariat questioned whether this is an incremental cost, yet it was found that a potential use of the Facility to fund this activity may be discussed at the upcoming ExCom meeting and ExCom members may wish to deliberate on this proposal. The proposal is therefore being included in this Work Programme. The details can be found in annex 3 of this document.

ANNEX 1 – Demos for ODS Waste Management/Destruction

Demonstrations for ODS-Waste Management/Destruction Proposals

Referring to paragraph 3 on UNDP's Proposed ODS-Waste/Destruction demonstration projects, some additional information from countries is being provided as follows.

A. General Information

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.

B. Country-Specific Information.

It should be noted that UNDP only plans to request project preparation in 2009, while the proposals themselves would be submitted in 2010. As mentioned in paragraph 3 above, more information is being provided for the following PRP requests:

NR	COUNTRY	TITLE	PROJECT VALUE US$	SUPPORT COST US$	TOTAL FUNDING US$
1	Bolivia	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
2	Brazil	PRP for Demonstration on ODS Banks Mgt and Destruction	40,000	3,000	43,000
3	Colombia	PRP for Demonstration on ODS Banks Mgt and Destruction	40,000	3,000	43,000
4	Uruguay	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
5	Ghana	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
6	Cuba	PRP for Demonstration on ODS Banks Mgt and Destruction	30,000	2,250	32,250
7	Egypt	PRP for Demonstration on ODS Banks Mgt and Destruction	40,000	3,000	43,000
8	India	PRP for Demonstration on ODS Banks Mgt and Destruction	60,000	4,500	64,500
Subtotal PRP Pilots on ODS Waste Management and Destruction			**300,000**	**22,500**	**322,500**

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 of 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. India

India is a large producer 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 India 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 project 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.

ANNEX 2 – Demos for HCFC in the RAC sector in China

CHINA

REQUEST FOR PROJECT PREPARATION FUNDING FOR DEMONSTRATION PROJECTS IN THE INDUSTRIAL AND COMMERCIAL REFRIGERATION SECTOR

Summary of the funding requests

Project title	Funding request	Support costs	Total
A. Demonstration project for the conversion of HCFC-22 based reciprocating refrigeration compressors for cold storage applications	30,000	2,250	32,250
B. Demonstration project for the conversion of HCFC-22 based residential air source heat pumps	30,000	2,250	32,250

Rationale and objectives

The proposed demonstration projects, upon successful completion will:

a) Develop a replicable project model for HCFC-22 reductions/phase-out in the 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

Sector Background

Since the early 1990s, the Industrial and Commercial Refrigeration sector in China has made significant progress consistent with the overall pace of development in China. The sector has maintained over 15% average annual growth rate and has contributed to China becoming a global producer for air-conditioning and refrigeration products. The estimated output of this sector in China in 2007 was valued at about US$ 18 billion, representing an increase of about 33% compared to the previous year. There are over 1,000 enterprises in the sector, with combined assets valued at over US$ 20 billion.

HCFC-22 has long been widely used as a mature refrigerant for most refrigeration and air conditioning applications, due to its suitable properties. In absence of satisfactory zero-ODP alternatives, HCFC-22 was also used as an interim replacement for CFCs in the initial stages of the CFC phase-out programme. At present, in the Industrial and Commercial Refrigeration sector in China, HCFC-22 is used as a refrigerant for a wide range of applications. About 80% of the refrigeration and air-conditioning products use HCFC-22 as a refrigerant, only a small number of applications use R134a, R410A, R407C, Ammonia and Lithium Bromide as refrigerants. HCFC-22 consumption has grown rapidly over the years in this sector due to the significant growth of the sector. In 2007, the estimated HCFC-22 consumption in this sector was about 40,000 Tones.

ANNEX 2 – Demos for HCFC in the RAC sector in China

A. Demonstration project for the conversion of HCFC-22-based reciprocating refrigeration compressors for cold storage applications

COUNTRY:	CHINA	**IMPLEMENTING AGENCY:**	UNDP
PROJECT TITLE:	Demonstration project for conversion of HCFC-22 based reciprocating refrigeration compressors for cold storage applications at **Yantai Moon Group Co. Ltd.**		
PROJECT IN CURRENT BUSINESS PLAN:	Yes		
SECTOR:	Industrial & Commercial Refrigeration & AC		
SUBSECTOR:	Compressors		
ODS USE IN SECTOR:	40,000 Metric Tones		
ODS USE IN ENTERPRISE:	0 (No direct consumption)		
PROJECT IMPACT:	200 Metric Tones (indirect)		
PROJECT DURATION:	18 months		
PROJECT COSTS:	US$ 30,000 (Preparation funding)		
REQUESTED GRANT:	US$ **30,000**		
IMPLEMENTING AGENCY SUPPORT COSTS:	US$ 2,250		
TOTAL COST TO MULTILATERAL FUND:	US$ 32,250		
STATUS OF COUNTERPART FUNDING:	Not applicable		
PROJECT MONITORING MILESTONES:	Included		
NATIONAL COORDINATING BODY:	FECO/MEP		

ANNEX 2 – Demos for HCFC in the RAC sector in China

PROJECT SUMMARY

Upon successful completion, this demonstration project will:

a) Develop a replicable project model for HCFC-22 reductions/phase-out for reciprocating refrigeration compressors for cold storage 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 about 200 metric Tones of HCFC-22 consumption by the downstream users of reciprocating refrigeration compressors manufactured by Yantai Moon Group Co. Ltd.

The proposed project covers the following main interventions:

(i) Redesign of compressors for introducing a new series of non-HCFC compressors, including redesign of various components and parts
(ii) Retrofit the production line and process tooling equipment suitable for the new technology
(iii) Retrofit the original experimentation facility and factory test-bed.
(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

The key impacts of the project upon successful completion would be to facilitate reduction or elimination of HCFC-22 in the downstream users of compressors manufactured by Yantai Moon Group Co. Ltd. by ensuring domestic availability of proven non-HCFC compressors in China.

ANNEX 2 – Demos for HCFC in the RAC sector in China

Enterprise Background

Yantai Moon Group Co. Ltd. was established in 1956, specializing in manufacturing of air conditioning and refrigeration products and engineering design, installation, commissioning and technical advisory services in the areas of frozen foods, food processing, industrial refrigeration, central air conditioning, fruit and vegetable preservation technologies. In 1998, Yantai Moon Group Co. Ltd. was listed on Shenzhen Stock market. The enterprise has independent intellectual property rights for refrigeration compressor manufacturing technology.

Yantai Moon Group Co. Ltd., as a large-scale backbone enterprise in refrigeration and air-conditioning industry in China, has advanced technology and rich experience in ammonia and HFC-22 refrigeration compressor manufacturing and system integration. In 1992, Yantai Moon was identified by the State Environmental Protection administration (currently Ministry of Environmental Protection) as a top priority company for implementation of the "small-scale ammonia refrigeration compressor production project" under ODS III which was approved at the 15th meeting of the Executive Committee.

Technology Selection

The following factors need to be considered for selection of the alternative technology:

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

Yantai Moon Group Co. Ltd. will carefully consider the above factors in evaluating HCFC-22 alternatives in its manufacture of reciprocating refrigeration compressors and for making the final selection of technology. Some of the candidates currently available are listed below:

Substance	GWP	Application	Remark
Ammonia	0	Industrial refrigeration and process chillers	Flammability and toxicity issues. Material compatibility issues.
CO_2	1	Supermarket refrigeration in a secondary loop and in stationary and mobile air conditioning systems	Major redesign of system components needed.
Hydrocarbons	<15	Small-capacity domestic and commercial refrigeration equipment	Flammability issues. Not widely used in large capacity systems
R-134a	1,300	Domestic, commercial refrigeration medium-temperature applications	Not efficient in low-temperature systems and industrial refrigeration applications. Needs synthetic lubricants
R-407C	1,520	Most applications	Properties closely match R22. Temperature glide, synthetic lubricants needed, slightly less efficient than R22
R-410A	1,710	Most applications	Near azeotropic blend of R-32 and R-125. Higher pressures, better cooling capacity, low temperature glide, high GWP, synthetic lubricants needed
R-404A	3,260	Low temperature applications	High GWP, less efficient at medium temperatures, synthetic lubricants needed
R-507	3,900	Low temperature applications	Azeotropic non-flammable blend of HFC-125 and HFC-143a. Refrigerating capacity comparable to R-502. Good heat transfer characteristics at low temperatures

Project Description

The proposed project will cover the following main interventions:

(i) Assess technical suitability, economic feasibility and environmental performance of the various available alternatives based on predetermined parameters and select an alternative that satisfactorily meets these parameters

(ii) Redesign of compressors for introducing a new series of non-HCFC compressors, including redesign of various components and parts with the selected technology
(iii) Retrofit the production line and process tooling equipment suitable for the new technology
(iv) Retrofit the original experimentation facility and factory test-bed.
(v) Carry our extensive tests and trials to establish technical performance with the new technology including impacts on system components, lubricants, etc.

Project Impact

Upon successful completion, this demonstration project will:

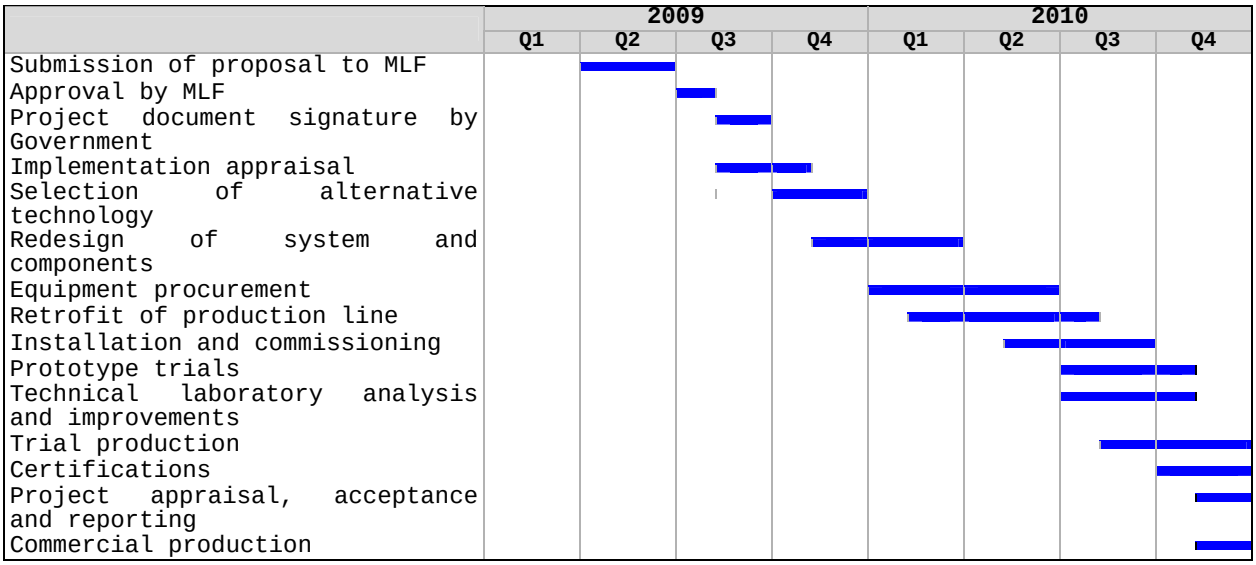
a) Develop a replicable project model for HCFC-22 reductions/phase-out for reciprocating refrigeration compressors for cold storage applications

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 about 200 metric Tones of HCFC-22 consumption by the downstream users of reciprocating refrigeration compressors manufactured by Yantai Moon Group Co. Ltd.

Monitoring Milestones



ANNEX 2 – Demos for HCFC in the RAC sector in China

B. Demonstration project for the conversion of HCFC-22-based Residential Air Source heat Pumps to R-410A

COUNTRY:	CHINA	**IMPLEMENTING AGENCY:**	UNDP
PROJECT TITLE:	Demonstration project for conversion of HCFC-22 based residential air source heat pump units to R-410A at **Tsinghua Tongfang Artificial Environment Co. Ltd.**		
PROJECT IN CURRENT BUSINESS PLAN:	Yes		
SECTOR:	Industrial & Commercial Refrigeration & AC		
SUBSECTOR:	Commercial Air Conditioning		
ODS USE IN SECTOR:	40,000	Metric Tones	
ODS USE IN ENTERPRISE:	70	Metric Tones	
PROJECT IMPACT:	70	Metric Tones	
PROJECT DURATION:	18 months		
PROJECT COSTS:	US$ 30,000	(Preparation funding)	
REQUESTED GRANT:	US$ **30,000**		
IMPLEMENTING AGENCY SUPPORT COSTS:	US$ 2,250		
TOTAL COST TO MULTILATERAL FUND:	US$ 32,250		
STATUS OF COUNTERPART FUNDING:	Not applicable		
PROJECT MONITORING MILESTONES:	Included		
NATIONAL COORDINATING BODY:	FECO/MEP		

ANNEX 2 – Demos for HCFC in the RAC sector in China

PROJECT SUMMARY

Upon successful completion, this demonstration project will:

a) Develop a replicable project model for HCFC-22 reductions/phase-out for residential air source heat pump unit applications
b) Establish technical performance and economic feasibility of R-410A as the refrigerant residential air source heat pump units application 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 residential air source heat pump units application and similar enterprises
d) Facilitate elimination of about 70 metric Tones of HCFC-22 consumption at Tsinghua Tongfang Artificial Environment Co. Ltd.

The proposed project covers the following main interventions:

(i) Redesign of residential air source heat pump units for introducing a new series of non-HCFC units, including redesign of various components and parts
(ii) Retrofit the production line and process tooling equipment suitable for the new technology
(iii) Carry our extensive tests and trials to establish technical performance with the new technology
(iv) Assess economic feasibility and environmental performance of the new technology

The key impact of the project upon successful completion would be to eliminate 70 metric Tones of HCFC-22 at Tsinghua Tongfang Artificial Environment Co. Ltd. and to further facilitate reduction or elimination of HCFC-22 by the residential air source heat pump unit manufacturers in China.

ANNEX 2 – Demos for HCFC in the RAC sector in China

Enterprise Background

Tsinghua Tongfang Artificial Environment Co. Ltd. was established in 1993. The enterprise is a state owned company, specializing in research and development, manufacturing and sale of the environmental products and systems. In the air conditioning field, the company actively carries out research and development of environmental control products, green construction, energy efficiency in buildings and renewable energy technologies. The enterprise employs 1,062 persons, of which about 35% have undergraduate and graduate level education.

Over the past decade, Tsinghua Tongfang Artificial Environment Co. Ltd. has successfully developed several product lines, including air-source/water-source/ground-source heat pump units, heat pump water heaters, lithium bromide absorption heat pump units, fan-coil units, central-station air handling units and air purifiers. The enterprise has accumulated rich experience in the development and application of the heat pump products. The technology level and quality of the products manufactured by Tsinghua Tongfang Artificial Environment Co. Ltd. are highly appreciated by consumers and other producers in the industry. The low ambient temperature air source heat pump units manufactured by the enterprise are classified at the International Leading Level by the Ministry of Construction. The range of heat pump units manufactured by Tsinghua Tongfang Artificial Environment Co. Ltd. is also classified at Leading Level domestically. Most products manufactured by the enterprise meet or exceed the National Standard on Energy Efficiency.

Tsinghua Tongfang Artificial Environment Co. Ltd. is the national leader in heat pump technology. The enterprise comprises a unique amalgam of industry, academia and research, and is abreast of the latest scientific progress on technology and environment. The enterprise has developed its own “core technology”, “core products” and “core systems” with independent intellectual property rights.

Tsinghua Tongfang Artificial Environment Co. Ltd. currently has three production bases, with 12 different product lines, with production capacity valued at about US$ 3 billion.

Technology Selection

The following factors need to be considered for selection of the alternative technology:

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

Some of the candidates currently available are listed below:

Substance	GWP	Application	Remark
Ammonia	0	Industrial refrigeration and process chillers	Flammability and toxicity issues. Material compatibility issues.
CO_2	1	Supermarket refrigeration in a secondary loop and in stationary and mobile air conditioning systems	Major redesign of system components needed.
Hydrocarbons	<15	Small-capacity domestic and commercial refrigeration equipment	Flammability issues. Not widely used in large capacity systems
R-134a	1,300	Domestic, commercial refrigeration medium-temperature applications	Not efficient in low-temperature systems and industrial refrigeration applications. Needs synthetic lubricants
R-407C	1,520	Most applications	Properties closely match R22. Temperature glide, synthetic lubricants needed, slightly less efficient than R22
R-410A	1,710	Most applications	Near azeotropic blend of R-32 and R-125. Higher pressures, better cooling capacity, low temperature glide, high GWP, synthetic lubricants needed
R-404A	3,260	Low temperature applications	High GWP, less efficient at medium temperatures, synthetic lubricants needed
R-507	3,900	Low temperature applications	Azeotropic non-flammable blend of HFC-125 and HFC-143a. Refrigerating capacity comparable to R-502. Good heat transfer characteristics at low temperatures

Tsinghua Tongfang Artificial Environment Co. Ltd. has carefully considered and applied the above-mentioned factors in evaluating HCFC-22 alternative candidates listed above and has concluded that R-410A technology is most suited for application to its heat pump products, due to its technical performance and relative neutrality with respect to global warming impact as compared to HCFC-22 and also due to potential energy efficiency gains through system improvements. In addition, Tsinghua Tongfang Artificial Environment Co. Ltd. has also carefully studied the international regulatory and market scenario, and notes that R-410A has wide acceptability in this particular market segment, both in USA and Japan.

Being the leader in heat pumps sub-sector in China, Tsinghua Tongfang Artificial Environment Co. Ltd. is considered to be the appropriate candidate for carrying out a demonstration project for this application in China.

Project Description

The proposed project will cover the following main interventions:

(i) Redesign of system and components for introducing a new series of non-HCFC air source heat pump units with R-410A technology. A total 8 specifications and 20 product models in the capacity range of 6 kw to 45 kw will be redesigned
(ii) Retrofit the production line and process tooling equipment suitable for the new technology
(iii) Carry our extensive tests and trials to establish technical performance with the new technology including impacts on system components, lubricants, etc.

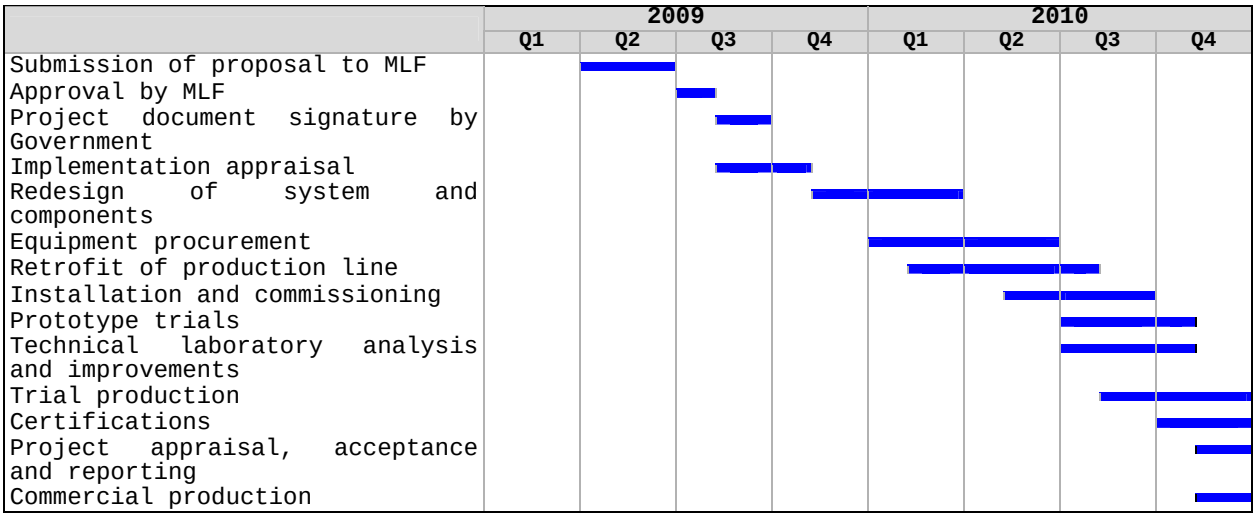
Project Impact

Upon successful completion, this demonstration project will:

(a) Develop a replicable project model for HCFC-22 reductions/phase-out for air source heat pump unit applications with R-410A technology in China
(b) Establish technical performance and economic feasibility of R-410A technology for air source heat pump unit applications and introduce and apply the same to similar enterprises at a later date
(c) Establish a methodology for calculation of conversion costs, which can serve as a reference for similar applications and enterprises
(d) Facilitate elimination of about 70 metric Tones of HCFC-22 consumption at Tsinghua Tongfang Artificial Environment Co. Ltd.

ANNEX 2 – Demos for HCFC in the RAC sector in China

Monitoring Milestones



ANNEX 3 – Resource Mobilization to Address Climate Co-Benefits in 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 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

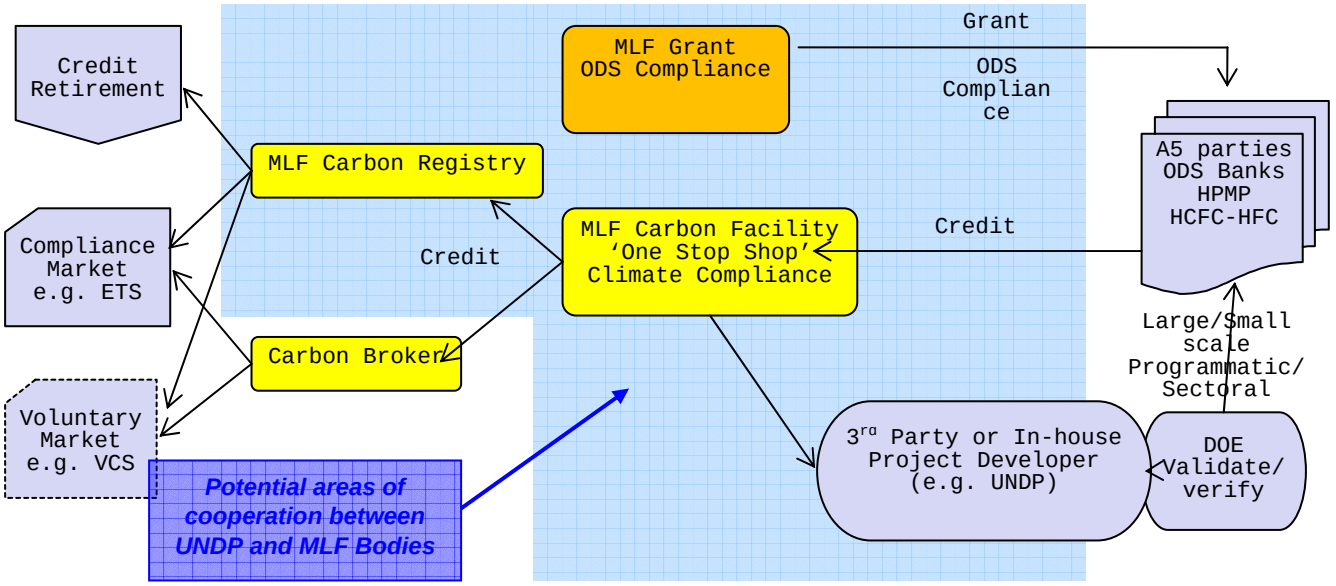
It is recognised that both project areas are of significant interest to the Executive Committee of the Multilateral Fund, since the Committee is required to give priority to cost-effective projects that optimise climate benefit under Decision XIX/6. The mechanisms by which such benefits are assessed 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.

ANNEX 3 – Resource Mobilization to Address Climate Co-Benefits in HCFC phaseout

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.

Additional Information on Outputs and Inputs for this proposal further to Comments received from the MLFS

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

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

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

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

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

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

ANNEX 3 – Resource Mobilization to Address Climate Co-Benefits in HCFC phaseout

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.

Regarding the team to deliver (re "inputs"), UNDP would suggest the following (subcontracts with consultancy-firms with teams of experts may be selected in lieu of individual consultants if found to be more suitable):

1. One team-leader (international consultant) overlooking the whole study (US$ 45,000)
2. 4 international consultants characterizing in detail the four project types outlined (US$ 104,000)
3. 4 international consultants providing the assessment of the barriers and taking agreed steps to assist in removing them (e.g. methodology development) (US$ 65,000).
4. Travel costs to organize meetings with various donor funds and other interested parties that may be involved in this study (US$ 36,000).

==========

Total à US$ 250,000