

# EP

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اللجنة التنفيذية للصندوق المتعدد الأطراف  
لتنفيذ بروتوكول مونتريال  
الاجتماع السابع و الأربعون  
مونتريال، 21-25 تشرين الثاني / نوفمبر 2005

## مقترح بمشروع: ماليزيا

تتضمن هذه الوثيقة تعليقات وتوصيات من أمانة الصندوق بشأن مقترح المشروع الآتي:

### الإزالة

البنك الدولي

● خطة وطنية لإزالة الـ CFC: برنامج العمل السنوي للعام 2005

ان وثائق ما قبل الدورات قد تصدر دون اخلال بأي قرار تتخذه اللجنة التنفيذية بعد صدورها.

لأسباب اقتصادية، لقد تمت طباعة هذه الوثيقة بعدد محدد، فيرجى من المندوبين أن يأخذوا نسختهم معهم الى الاجتماع وألا يطلبوا نسخا اضافية.

ورقة تقييم المشروع – مشروعات متعددة السنوات  
ماليزيا

عنوان المشروع	خطة وطنية لإزالة الـ CFC: برنامج العمل السنوي للعام 2005
الوكالة المنفذة/ الثانية	البنك الدولي
الوكالة الوطنية القائمة بالتنسيق:	مصلحة البيئة

آخر بيانات الاستهلاك المبلغ عنها بشأن المواد المستنفدة للأوزون التي يعالجها المشروع  
ألف: البيانات الواردة بموجب المادة 7 (طن ODP، بيانات 2004 حتى تشرين الأول/ أكتوبر 2005)

CFC: 1,128.5	TCA: 11.4	CTC: 0
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باء: البيانات القطاعية للبرنامج القطري (طن ODP، 2004، حتى تشرين الأول/ أكتوبر 2005)

المواد المستنفدة للأوزون	غاز التبريد	الأيروسولات	المواد المستنفدة للأوزون	المذيبات
CFC	142	987	TCA	5

المتبقي من استهلاك CFC المؤهل للتمويل (طن ODP) غير متوفر

خطة أعمال السنة الجارية: مجموع التمويل: 1 208 300 دولار أمريكي الإزالة الإجمالية: 470.8 طن ODP

بيانات المشروع	2005	2006	2007	2008	2009	2010	المجموع*
CFC (طن ODP)	1,635.6	1,635.6	490.7	490.7	490.7	0	3,271.1
حدود بروتوكول مونتريال	699	579	490	401	332	0	1,855
حدود الاستهلاك السنوي							
الإزالة السنوية من المشروعات الجارية							
الإزالة السنوية المتناولة مؤخرًا							
الإزالة السنوية غير الممولة	35.7	35.7	35.7	35.7	35.7	0	51
TCA (طن ODP)	18	18	18	18	18	0	51
حدود بروتوكول مونتريال							
حدود الاستهلاك السنوي							
الإزالة السنوية من المشروعات الجارية							
الإزالة السنوية المتناولة مؤخرًا							
الإزالة السنوية غير الممولة	0.68	0.68	0.68	0.68	0.68	0	4.51
CTC (طن ODP)	0.68	0.68	0.68	0.68	0.68	0	4.51
حدود بروتوكول مونتريال							
حدود الاستهلاك السنوي							
الإزالة السنوية من المشروعات الجارية							
الإزالة السنوية المتناولة مؤخرًا							
الإزالة السنوية غير الممولة							
مجموع استهلاك المواد المستنفدة للأوزون الواجب إزالته	470.83	120.00	89.00	89.00	69.00	350.68	1188.51
مجموع استهلاك المواد المستنفدة للأوزون الواجب استلامه (HCFCs)							
تكاليف المشروع (دولار أمريكي):	1,208,300	1,013,300	275,000	275,000	275,000	0	11,517,005
تمويل الوكالة القادة: البنك الدولي	1,208,300	1,013,300	275,000	275,000	275,000	0	11,517,005
مجموع تمويل المشروع							
تكاليف المساندة (دولار أمريكي):	100,747	83,197	24,750	24,750	24,750	0	974,930
تكاليف مساندة الوكالة القادة:							
البنك الدولي							
إجمالي تكاليف المساندة	100,747	83,197	24,750	24,750	24,750	0	974,930
مجموع التكاليف التي يتحملها الصندوق المتعدد الأطراف (دولار أمريكي)							
فعالية تكلفة المشروع (دولار أمريكي/ كغ)							
غير متوفرة							

2010.

طلب التمويل: الموافقة على تمويل برنامج العمل السنوي للعام 2005 في الخطة الوطنية لإزالة CFC في ماليزيا.

توصية الأمانة | موافقة شمولية بالتكاليف المشار إليها أعلاه.

## وصف المشروع

1- طلبت حكومة ماليزيا، عن طريق البنك الدولي، مبلغ 1 208 300 دولار أمريكي لبرنامج العمل السنوي للعام 2005 للخطة الوطنية لإزالة CFC في ماليزيا.

### خلفية المشروع

2- وافقت اللجنة التنفيذية، من حيث المبدأ، على مبلغ إجمالي قدره 11 517 005 دولارات أمريكية كتمويل لتنفيذ الخطة الوطنية لإزالة CFC في ماليزيا، وذلك في اجتماعها الخامس والثلاثين، يصرف في الفترة 2002 – 2010 للتخلص من الاستهلاك المتبقي لنحو 2092 طن ODP من المجموعة الأولى من المرفق ألف - CFCs، و33 طن ODP من TCA، و4 أطنان من رابع كلوريد الكربون. ومنذ الموافقة على هذا المبلغ، تم الإفراج عن شرائح السنوات 2001، و2002، و2003 للبنك الدولي، حيث بلغ المجموع الإجمالي للمبالغ المنصرفة 8 470 405 دولارات أمريكية. ووفقا لشروط الاتفاقية، فإن البنك الدولي يعرض برنامج العمل السنوي للعام 2005 ويطلب الإفراج عن الشريحة المقررة للعام 2005 من التمويل والبالغة 1 208 300 دولار أمريكي بالإضافة إلى كلفة الدعم المرافقة والبالغة 100 747 دولارا أمريكيا. ويتكون العرض من تقرير حول إنجاز برنامج العمل السنوي للعام 2004، وبرنامج العمل السنوي المقترح للعام 2005، وتقرير مدقق مجاز عن الواردات من مواد CFC، وCTC، وTCA في العام 2004. ومرفق بهذه الوثيقة برنامج العمل السنوي للعام 2005 للخطة الوطنية لإزالة CFC وتقرير المدقق المجاز عن واردات ماليزيا. ويتضمن الجدول التالي موجزا للبيانات الرئيسية المستخرجة من الخطة الوطنية للإزالة وبرنامج العمل السنوي للعام 2005.

البلد	ماليزيا
سنة الخطة	2005
عدد السنوات التي انقضت من الخطة	3
عدد السنوات المتبقية من الخطة	5
استهلاك المواد المستنفدة للأوزون المستهدف في السنة السابقة (2004)	<ul style="list-style-type: none"> <li>• 1136 طن ODP من المرفق أ، المجموعة الأولى للمواد الكيميائية (CFCs)</li> <li>• 48 طن ODP من TCA</li> <li>• 4.51 طن ODP من CTC</li> </ul>
<b>المجموع</b>	<b>1188.51 طن ODP</b>
استهلاك المواد المستنفدة للأوزون المستهدف في سنة الخطة (2005)	<ul style="list-style-type: none"> <li>• 699 طن ODP من المرفق ألف، المجموعة الأولى من المواد الكيميائية (CFCs)</li> <li>• 18 طن ODP من TCA</li> <li>• 0.68 طن ODP من CTC</li> </ul>
<b>مجموع المواد المستنفدة للأوزون</b>	<b>717.68 طن ODP</b>
مجموع تمويل الصندوق المتعدد الأطراف الموافق عليه من حيث المبدأ	11 517 005 دولارات
مجموع تمويل الصندوق المتعدد الأطراف المفرج عنه حتى تشرين الثاني/نوفمبر 2004	8 470 405 دولارات
مستوى التمويل المطلوب	الاستثمارات: 1 008 300 دولار تكاليف وحدة إدارة المشروعات: 200 000 دولار <b>المجموع: 1 208 300 دولار</b>
تكاليف دعم الوكالة المنفذة	الأنشطة الاستثمارية (9%): 90 747 دولارا وحدة إدارة المشروعات (5%): 10 000 دولار <b>المجموع: 100 747 دولارا</b>

تنفيذ برنامج العمل للعام 2004

3- إن أقصى قدر مسموح به من استهلاك مواد CFC، وTCA، وCTC في الاتفاقية للعام 2004 بلغ 1188.51 طن ODP تنقسم إلى 1136 طن ODP من مواد CFC، و48 طن ODP من TCA، و4.5 طن ODP من CTC. وبلغ الاستهلاك الفعلي المبلغ عنه 1139.3 طن ODP من مواد CFC، و11.4 طن ODP من TCA، وصفرا من CTC، بإجمالي 1150.7 طن ODP للمواد الثلاث. وحقق برنامج 2004 الهدف المحدد في الاتفاقية رغم أن الواردات من مواد CFC قد تجاوزت الهدف، بنحو 3 أطنان ODP (1136) طن ODP في مقابل 1139.3 (طن ODP).

4- وأبلغ أن التخفيض الاستهلاك هذا قد تحقق من خلال اقتران تنفيذ المشروعات الموافقة عليها قبل خطة الإزالة الوطنية، بتحديد وتمويل الاستهلاك المتبقي من هذه المواد المستنفدة للأوزون في الصناعات الصغيرة والمتوسطة في القطاعات المختلفة، وأنشطة المساعدات التقنية في قطاع خدمة التبريد. وتضمن التقرير الخاص ببرنامج العمل للعام 2004 وصفا للأنشطة المنفذة في 2004 في إطار المساعدات الفنية، بما في ذلك استكمال ونشر الاستراتيجية الانتقالية لأجهزة الاستنشاق بالجرعات المقننة، واستكمال الكتاب المرجعي للتدريب على التفتيش القياسي تنفيذا للشرط الإلزامي الخاص بالتفتيش على أجهزة تكييف الهواء المتحركة في 2005، وإصدار الكتب المرجعية لتدريب مسؤولي الجمارك والتدريب على استخدام أجهزة التعرف على غاز التبريد. وحقق نظام منح الشهادات لتقنيي الخدمة مزيدا من التقدم، حيث تم تدريب أكثر من 3000 شخص في السنوات القليلة الماضية. وحصلت المشاغل على معدات صيانة أجهزة تكييف الهواء المتحركة كما حصل بعضها على وحدات للاسترداد وإعادة التدوير، جرى تمويلها عن طريق نظام الضمان بدعم مالي من المشروع.

5- جدير بالذكر أن حكومة ماليزيا أعلنت في اجتماع الأطراف في براغ في 2004 فرض حظر على CFCs في قطاعات التصنيع اعتبارا من كانون الثاني/يناير 2006. وتمثل تطور مهم آخر في مجال السياسات في 2004 في تعديل قانون إدارة غازات التبريد في ماليزيا، الذي اشترط على جميع مشاغل الخدمة أن يتوفر لها معدات الاسترداد وإعادة التدوير وتقنيو الخدمة المدربون والمعتمدون. وألحق بالصياغة النهائية لإنجازات برنامج العمل للعام 2004 عرض بالجدول للتقدم المحرز في كل نشاط، شمل الهدف، والمجموعة المستهدفة، والأثر، وحالة التنفيذ. وتضمن التقرير المالي للعام 2004 بيانات عن الإنفاق المخطط (251 098 3 دولارا أمريكيا) في مقابل الإنفاق الفعلي (18 018 971 دولارا أمريكيا) في أكثر من 11 نشاطا وتجاوز معدل الصرف نسبة 60 في المائة.

### برنامج العمل السنوي للعام 2005

6- اقترح برنامج العمل للعام 2005 حدا أقصى للاستهلاك قدره 717.7 طن ODP، ينقسم إلى 699 طن ODP بالنسبة لـ CFC، و18 طن ODP بالنسبة لـ TCA، و0.68 طن ODP بالنسبة لـ CTC. وتتفق هذه الأرقام مع الأهداف الواردة في الاتفاقية. وتضمن البرنامج وصفا للأنشطة التي يتعين على الحكومات الاضطلاع بها كالتحقق من مستوى استهلاك المواد المستنفدة للأوزون وفرض التفتيش الإلزامي على أنظمة أجهزة تكييف الهواء المتحركة في المركبات التجارية. ويهدف البرنامج إلى إتمام كل عمليات تحويل الصناعات خلال العام بحيث لا يكون لحظر مواد CFC في العام 2006 أثر ضار كبير على الصناعات، وبخاصة المنشآت الصغيرة والمتوسطة. وسوف يستمر الكثير من الأنشطة الجارية في العام 2005 وسيجري العمل في تنفيذ مشروع قطاع صيانة غازات التبريد مع تعيين منسق عام للإشراف على البرنامج المتعدد الأوجه. ويرد عرض بالجدول للهدف، والمجموعة المستهدفة، والأثر، وحالة كل نشاط تحت بند الصناعة في الجدول 11 وتحت بند وحدة إدارة المشروع في الجدول 12. ويتضمن الجدول 13 الإجراءات التي اتخذتها الحكومة في 2005 مع معلومات عن السياسة، والجدول الزمني لاستكمال المشروع، والحالة. وتتضمن الميزانية المقترحة لبرنامج العمل السنوي للعام 2005 بيانا تفصيليا لأوجه الإنفاق المخططة موزعة على 14 بندا من بنود الأنشطة لمبلغ إجمالي متوقع قيمته 5 779 512 دولارا أمريكيا.

### تدقيق الواردات من المواد المستنفدة للأوزون

7- قام بتدقيق الواردات من مواد CFC، وTCA، وCTC للعام 2004 مدقق مجاز بالنيابة عن المدقق العام في ماليزيا. وفحص المدقق إجراءات إصدار حصة الاستيراد مقابل تطبيق نظام رخصة الاستيراد الذي نفذته وزارة التجارة الدولية والصناعة، وإجراءات مراقبة الاستيراد التي نفذتها مصلحة الجمارك الملكية. ويصف التقرير خطوات إجراء المراجعة التي تضمنت التحقق من عملية إصدار حصص الاستيراد للعام 2004، والتحقق من الحصص الصادرة لخمسة من الموردين الخمسة عشر المعتمدين، والتحقق من سجلات الجمارك والوثائق المقدمة من المستوردين، والتحقق من سجلات مصلحة الإحصاء. وخلص التقرير في النهاية إلى أن إجمالي الواردات في العام 2004 بلغ 1139.3 طن ODP من CFC، و11.4 طن ODP من TCA، و صفرًا من CTC. وخلص تقرير المدقق إلى أن الإجراءات المستخدمة لمراقبة استيراد المواد المستنفدة للأوزون التي تنفذها بها حكومة ماليزيا تبعث على الرضا.

## تعليقات وتوصيات الأمانة

### التعليقات

8- أعد تقرير برنامج العمل لعام 2005 وفقا للخطوط الإرشادية لإعداد وتنفيذ وإدارة خطط إزالة المواد المستنفدة للأوزون القائمة على الأداء على الصعيدين القطاعي والوطني (UNPE/OzL.Pro/ExCom/38/57) التي ووفق عليها في الاجتماع الثامن والثلاثين. وشمل تقرير برنامج العمل للعام 2004 معلومات عن التقدم المحرز في الأنشطة المختلفة التي تشكل جزءا من الخطة الوطنية للإزالة وأثرها على تحقيق هدف الإزالة في ذلك العام. ومن الجدير بالذكر بوجه خاص إعلان الحكومة في العام 2004 حظر مواد CFC في قطاعات التصنيع في العام 2006، وهو ما يمثل التزاما من جانب الحكومة بتنفيذ بروتوكول مونتريال. وحدد برنامج العمل السنوي للعام 2005 أهدافا واضحة تتفق مع الأهداف الواردة في الاتفاقية وتساندها أنشطة ملموسة يتعين على الحكومة والصناعة تنفيذها.

9- يتصدى البرنامج السنوي للعام 2005 لواحد من الشواغل التي عبرت عنها الأمانة فيما يتعلق ببرنامج عمل 2004، وهو أن تستكمل الجهود التي تبذل في الوقت الراهن لتحويل جميع المنشآت الصغيرة والمتوسطة المتبقية المستهلكة لـ CFC أو تكون قد قطعت شوطا بعيدا في طريق استكمالها بحلول نهاية العام 2005 بحيث لا يكون لحظر مواد CFC في قطاعات التصنيع في العام 2006 تأثير ضار على هذه المشروعات.

10- يوضح التقرير المتعلق بالتحقق من واردات CFC، وTCA، وCTC في العام 2004 أن حكومة ماليزيا قد وضعت نظاما فعالا لمراقبة الترخيص بالنسبة لواردات المواد المستنفدة للأوزون. ونفذت عملية التحقق باستخدام منهجية سليمة كما استخدمت فيها بيانات من مصادر متنوعة بغرض التأكد من صحتها.

11- ومع ذلك فقد تضمنت بيانات الاستهلاك للعام 2004 بعض الواردات ذات الصلة باستهلاك العام 2003 والتي وصلت إلى ماليزيا في العام 2004، وكذلك بعض الواردات من العام 2004 التي ستصل إلى البلد في العام 2005. ورغم أن هذه البيانات قد أدرجت في بيانات الواردات الإجمالية للعام 2004، والتي كانت لا تزال تقل عن الأهداف المحددة في الاتفاقية، فقد التزمت الحكومة بمعالجة هذا التعقيد من خلال تسجيل البيانات في المستقبل.

12- سوف يتحسن عرض الميزانية والأداء المالي للعام 2004 الوارد في صفحة 14 من برنامج العمل السنوي بتوفير المعلومات المتعلقة بالتمويل المعتمد الإجمالي المقدم من الصندوق المتعدد الأطراف مع بيانات عن الصرف. واضطلع البنك الدولي بذلك منذ العام 2004 عند تقديم بيانات مالية مشابهة للخطة الوطنية للإزالة في تايلاند. ويرد فيما يلي العرض المقترح على وجه التحديد.

### الميزانية والأداء المالي في العام 2004

الوصف	التمويل المعتمد من اللجنة التنفيذية (دولار أمريكي)			التمويل المنصرف (دولار أمريكي)		
	التمويل التراكمي المعتمد حتى كانون الأول/ديسمبر 2003	التمويل المعتمد في العام الحالي 2004	إجمالي التمويل المعتمد حتى كانون الأول/ديسمبر 2004	الإنفاق الفعلي التراكمي المنصرف حتى كانون الأول/ديسمبر 2003	الإنفاق الفعلي المنصرف في العام الحالي 2004	الإنفاق الفعلي الإجمالي المنصرف حتى كانون الأول/ديسمبر 2004
الإنتفاق الإجباري في العام الحالي 2004 (دولار أمريكي)						

13- سوف يكون هدف العام 2005 هدفا حاسما لأنه سيوفر الأساس لقياس امتثال ماليزيا بتخفيض مواد CFC بنسبة 50 في المائة وخفض CTC بنسبة 85 في المائة. وبينما يبلغ الخط الأساسي لمواد CFC في ماليزيا 3271.06 طن ODP وهدف التخفيض بنسبة 50 في المائة 1635.53 طن ODP، فإن الهدف بالنسبة لمواد CFC في الاتفاقية للعام 2005 هو 699 طن ODP. ومن ناحية أخرى، فإن الخط الأساسي بالنسبة لـ CTC في ماليزيا هو 4.51 طن ODP والتخفيض بنسبة 85 في المائة في العام 2005 هو 0.68 طن ODP. وفي برنامج العمل السنوي للعام 2005 يبلغ المستهدف من CTC 0.68 طن ODP. وإذا تمكنت ماليزيا من تحقيق هذه الأهداف، فإن مستوى استهلاكها سيكون في حدود المستوى المطلوب لتحقيق شروط الامتثال هذه.

### التوصيات

14- توصي الأمانة اللجنة التنفيذية بما يلي:

- (أ) الموافقة على برنامج العمل للعام 2005 في الخطة الوطنية لإزالة CFC في ماليزيا في حدود مستوى التمويل المطلوب والبالغ 1 208 300 دولار أمريكي وكلفة الدعم المرافقة والبالغة 747 100 دولارا أمريكيا للبنك الدولي.
- (ب) الاطلاع، مع التقدير، على تقرير المدقق المجاز بشأن واردات CFC، وTCA، وCTC للعام 2004 في ماليزيا.
- (ج) مطالبة البنك الدولي بإدراج البيانات المتعلقة بالتمويل المعتمد من الصندوق المتعدد الأطراف في تقرير الأداء المالي، كما حدث بالنسبة لخطة الإزالة الوطنية في تايلاند.

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MALAYSIA  
National CFC Phase-out Plan (NCFCP)  
2002-2010

**Annual Work Program  
(AWP 2005)**  
Prepared by:

**Ozone Protection Section**  
Department of Environment (DOE)  
Ministry of Natural Resources  
And Environment

MALAYSIA

July 2005

**To be submitted to the  
Executive Committee of the Multilateral Fund for the  
Implementation of the Montreal Protocol at its 47<sup>th</sup>  
Meeting**

November 2005

**1.0 DATA**

Country	<b>MALAYSIA</b>
Year of plan	2005
No. of years completed	3
No. of years remaining under the plan	5
Target ODS Consumption of the preceding year <b>(2004)</b>	<ul style="list-style-type: none"> <li>• 1,136 ODP tonnes of Annex A, Group I Chemicals (CFCs)</li> <li>• 48 ODP tonnes of TCA</li> <li>• 4.51 ODP tonnes of CTC</li> </ul>
<b>Total</b>	<b>1,188.51 ODP tonnes</b>
Target ODS Consumption of the year of plan <b>(2005)</b>	<ul style="list-style-type: none"> <li>• 699 ODP tonnes of Annex A, Group I Chemicals (CFCs)</li> <li>• 18 ODP tonnes of TCA</li> <li>• 0.68 ODP tonnes of CTC</li> </ul>
<b>Total ODS</b>	<b>717.68 ODP tonnes</b>
Level of funding requested	Investments:                   USD 1,008,300 PMU costs:                    USD 200,000 <b>Total:                         USD 1,208,300</b>
IA Support Costs	Investments activities (9%): USD 90,747 PMU (5%):                     USD 10,000 <b>Total:                         USD 100,747</b>
Lead implementing agency	The World Bank
Co-operating agencies	Nil



## Introduction

1. In accordance with the Executive Committee's approval of the "Malaysia National CFC Phaseout Plan" (Decision 35/53), Malaysia is hereby requesting the release of the fifth tranche of US\$1,208,300 for the implementation of its 2005 Annual Program. After implementing this program, Malaysia's CFC consumption will be reduced to a maximum of 699 ODP tonnes by the end of 2005. Similarly, the country's consumption of 1,1,1 TCA and CTC will be reduced to a maximum of 18 ODP tonnes and 0.68 ODP tonnes, respectively. Details of the 2005 annual program are provided in Part II.
2. The Executive Committee (ExCom) of the Multilateral Fund for the Implementation of the Montreal Protocol has approved a total grant of US \$11,517,005 in funding for the phased reduction and complete phase-out of consumption of Annex A, Group I chemicals, 1,1,1 TCA and CTC in Malaysia. The approved funding and agreed annual targets are summarized in Table 1 below.
3. Following the approval of the NCFCP at the 35<sup>th</sup> Meeting of the ExCom in December 2001, Malaysia has taken important steps towards the implementation of the Plan. Details of 2004 activities and developments to date are found in Part I.

**Table 1: Approved MLF Funding and ODP Reduction Schedule**

Year	Annual Grant Funding US\$ (million)	Maximum Consumption allowed under NCPP (ODP tonnes)			
		CFC	1,1,1 TCA	CTC	Total ODS
2001	1,799,940				
2002	2,969,065	1,855	51	4.51	1910.51
2003	2,013,100	1,566	48	4.51	1618.51
2004	1,688,300	1,136	48	4.51	1188.51
2005	1,208,300	699	18	0.68	717.68
2006	1,013,300	579	18	0.68	597.68
2007	275,000	490	18	0.68	508.68
2008	275,000	401	18	0.68	419.68
2009	275,000	332	18	0.68	350.68
2010	0	0	0	0	0

## PART I - 2004 ANNUAL PROGRAM ACCOMPLISHMENTS

### 1. TARGETS MET

1. The 2003 verification report, submitted at the 44<sup>th</sup> Meeting of the Executive Committee, showed that a total of 1465 ODP tones of CFCs were imported within the calendar year (January 1 to December 31, 2003). This was well below the maximum allowable consumption (under NCFCP) for 2003 of 1,566 ODP tonnes of CFCs.

2. ODS consumption data for 2004, as reported by the Government of Malaysia to the Ozone Secretariat, are summarized in Table 2. These figures have been verified by the National Audit Department (NAD) in its 2004 report, submitted to the Executive Committee along with this 2005 AWP. As indicated in Table 2, with a CFC consumption of 1,128.5 ODP tonnes, Malaysia has once again met its consumption reduction commitments to the Montreal Protocol. The country is committed to the timely and effective implementation of its National CFC Phaseout Plan (NCFCP), and it is therefore well positioned to meet its 2005 phaseout obligations (*i.e* 50% reduction of its CFC baseline).

**Table 2: ODS Consumption in 2004**

All data in ODP Tonnes	CFCs	1,1,1 TCA	CTC
Maximum allowable consumption in 2004	1,136	48	4.51
Imports in 2004 <sup>1</sup>	1,128.5	11.4	0

(<sup>1</sup>): The 2004 NAD report indicates that CFC imports for the year amounted to 1,139.4 ODP tonnes. However, this figure has been revised to account for: a) 18 ODP tonnes approved for import in 2003 that arrived to port in 2004, which were added to the 2004 total; and b) 28.82 ODP tonnes approved for import in 2004 that did not reach Malaysia until 2005, which were subtracted from the 2004 total and counted as part of 2005 imports. All agencies involved in the control of ODS imports in Malaysia including DOE, NAD, the Royal Malaysian Customs, the Department of Statistics and the Ministry of International Trade and Industry agreed to this final consumption figure at a meeting at DOE in June 2005. Agencies also agreed on procedures to avoid the occurrence of similar issues in the future. The NAD report being submitted along with this AWP had been issued prior to the meeting and could no longer be revised. However, data reported by DOE to the Ozone Secretariat includes the revised import data.

### 2. SUMMARY OF TECHNICAL ASSISTANCE ACTIVITIES

3. Under the directive of the National Steering Committee for Ozone Protection (NSC), the Department of Environment (DOE) and other relevant Government agencies have carried out the implementation of the various sector policies as outlined in the approved NCFCP. A brief description of the technical assistance activities undertaken in 2004 is provided below.

#### 2.1 MDI Program

4. The National Pharmaceutical Control Bureau (NPCB) was retained as consultants for the development of a National Transition Strategy to Phase out CFCs in MDI. An awareness Seminar on CFC-Free MDIs was held on 9 May 2004, during which the Strategy was circulated and discussed amongst stakeholders. The final version of the National Strategy was ultimately forwarded to Working Group members, NGOs and Pharmaceutical Associations. It was agreed that existing market authorizations of CFC-MDIs will be permitted until the year 2010. Copies of the strategy as well as information pamphlets were printed and distributed to the public. An announcement of the future phase out of CFC-MDIs was printed in local newspapers on February 2005. A series of road shows and awareness programs will be conducted by NPCB in 2005.

## **2.2 MAC Inspection Program (PUSPAKOM)**

5. A consultant was appointed to develop the Standard Inspection Training Manual (SITM), which will be used by local inspection authorities such as PUSPAKOM, Road Transport Dept. (RTD) and DOE. The consultant successfully completed his task and developed the SITM. A series of 10 hands-on training workshops were conducted in Puspakom centres around the country, with the objective of instructing participants on how to use the SITM and refrigerant identifiers (RI). Approximately 150 participants from Puspakom, DOE and RTD attended the training workshops. The breakdown of RI distributed is as follows: 28 RIs were purchased and distributed to Puspakom centres, 36 RIs for DOE State Offices, 2 RIs for DOE (HQ), while the RTD received 2 units.

## **2.3 Customs-ODS Training Program (COTP)**

6. The consultant appointed to develop the Customs-ODS Training Manual (COTM) completed its task in December 2003. Final versions of the COTM were printed in two languages and distributed to the relevant agencies. Two training sessions using the COTP were conducted in 2004 by the Customs Academy of Malaysia (AKMAL) and DOE. To date, more than 100 customs officers and DOE officials have been trained on the use of RIs and COTM. The Customs Department has also received 52 RIs as part of this program.

## **2.4 ODS Awareness Program**

7. During the International Ozone Day, the Air Quality Improvement and Ozone Office of DOE, in conjunction with the Penang DOE State Office, organized a seminar for representatives from various ODS sectors and government agencies. The purpose of the seminar was to disseminate information on NCFCP strategies and the Government policy to relevant stakeholders in the government sector and the general public. In addition, DOE organized and participated in: a) three series of Chiller/Commercial Refrigerant Training Management; b) training sessions under the Train the Trainer Program (TTP) for authorized training centre (ATC) of the MAC sector plan; c) 89 series of Certification of Service Technician Program; and d) five series of ODS Regulation Seminars for DOE officers, industry association, government agencies and NGOs.

8. DOE participated in meetings or workshops such as the Informal Consultation Meeting on MB (Buenos Aires), Extraordinary Meeting of the MP (Montreal), 25<sup>th</sup>. OEWG (Geneva), 16<sup>th</sup> MOP (Prague), WB/NCFCP Meeting (Hanoi), SEAP ODS Networks and Customs ODS Meetings (Agra and Phenom Phenn), HCFC Alternative Technology Meeting (Tokyo), and the 9<sup>th</sup>. Financial Agents Meeting at the World Bank (Washington DC). Table 3 presents a summary of Technical Assistance activities carried out under the NCFCP.

**Table 3: Technical Assistance activities carried out in CY 2004**

NO	CY2004	OBJECTIVES	Prevention of R134a MAC system to be retrofitted with R12 (CFC-12) (reverse retrofitting)
	MAC Inspection	TARGET GROUP	PUSPAKOM, RTD and DOE State Offices, Commercial and Private car owners
		IMPACT	Reduction of CFC-12 consumption in MAC service sector and increase awareness of vehicle's owners
	DESCRIPTION	STATUS/REMARKS	
1	Development of a Standard Inspection Training Manual (SITM)	<ul style="list-style-type: none"> <li>Global Mist Sdn Bhd was appointed as consultant has published SITM which used by Puspakom, Road Transport Dept (RTD) and DOE.</li> <li>10 series hands on training on RI and SITM were jointly conducted with PUSPAKOM.</li> <li>In addition, stickers, pamphlet and awareness program distributed for all commercial vehicles after each inspection in Puspakom</li> </ul>	

NO	CY2004	OBJECTIVES	To increase awareness on CFC MDI transition plan
	CFC in MDI Sector	TARGET GROUP	Pharmaceutical Association, Doctors, MDI Importers, and Patients
		IMPACT	To promote the use of non-CFC MDI
	DESCRIPTION	STATUS/REMARKS	
1	Selection of consultant Development and strategies taken	<ul style="list-style-type: none"> <li>NPCB appointed by DOE to develop the National Strategy for the Phase Out CFCs in MDIs for the period of August 2003 to March 2004</li> <li>2 Technical WG meetings chaired by NPCB and followed by the Awareness Seminar on CFC Free MDIs on 9 May 2004.</li> <li>The National report and 2 pamphlets were published and distributed to the WG members in October 2004.</li> <li>An announcement on phasing out CFC MDIs was published in a local newspaper on February 8, 2005.</li> <li>The National report and 2 pamphlets were reprinted and distributed to the hospitals in April 2005</li> </ul>	

NO	CY2004	OBJECTIVES	Build technical capacity of custom officials to inspect the import of ODS
	Custom ODS Training Program	TARGET GROUP	Custom officials and DOE State Officers
		IMPACT	Strengthen effectiveness of import control system of CFC
NO	DESCRIPTION	STATUS/REMARKS	
1	Development of a Custom-ODS Training Manual (COTM) and Course	<ul style="list-style-type: none"> <li>• Top Tier Sdn Bhd was appointed as consultant and published the Custom ODS Training Manual (COTM) in dual languages in March 2004.</li> <li>• 2 series Custom ODS Training Program (COTP) using COTM and RI were conducted in April and September 2004.</li> </ul>	

### 3. INDUSTRY ACTION (SUB PROJECT)

#### 3.1 MAC Servicing Sector

##### Certification of ATC – Train the Trainer Program (TTP)

9. This component of the NCFCP has been fully completed. A total of 30 Authorized Training Centres (ATC) were established around the country to train technicians from MAC servicing shops. The program provided training to two 2 participants from each ATC and to 15 officers from DOE. Training provided information on the NCFCP, hands-on technical training of the R&R Machines, MAC Tools, RIs ,and a theory and practical test. A total of 60 ATC staff were trained, and each centre received two sets of basic MAC tools and two sets of R & R units.

##### Certification of Service Technicians Program (CSTP) and Distribution of Vouchers for Procurement of Basic MAC Tools

10. As of December 2004, 1,441 workshops out of an estimated 3,000 have been registered and certified as part of the CSTP. Out of these, 1,329 workshops have been qualified to receive subsidy for MAC maintenance tools kits via the voucher scheme. The value of the voucher that has been given to each workshop is USD 1,100, covering the cost of a pressure gauge, a leak detector, a charging cylinder and a vacuum pump. To date, an estimated 95 % of the 1,329 vouchers distributed have been exercised and the equipment has been ordered through the qualified suppliers.

##### Verification and Vouchers for R & R Units

11. Based on the information submitted by the MAC service workshops during CSTP, DOE verifies the eligibility of workshops interested in receiving R&R units (in addition to the basic MAC tools). During field visits, DOE verifies the level of consumption of the interested workshops and determines which ones are eligible to receive additional subsidies. As of December 2004, 143 workshops field visits had been conducted by DOE. Out of those, only 120 workshops will receive vouchers for R&R units. Qualifying workshops will receive vouchers for USD 2,000 as subsidy for their R&R units.

### **3.2 Solvent Sector**

12. Based on a final survey on the remaining users of CFC 113, 111-TCA and CTC amongst Small and Medium Enterprises (SME), and in consultation with two of the main CFC-based solvent suppliers, DOE determined that only one SME remains to be converted in the solvent sector. A project proposal that was prepared by DOE at the end of 2004 has undergone a series of revisions. The project is expected to start in the first quarter of 2005 and the expected phaseout by its completion is 8 ODP tonnes.

### **3.3 Foam Sector**

13. A group project involving 14 SMEs has been completed. A total phase-out of 10.25 ODP tonnes of CFCs was achieved and USD 105,000 was disbursed to the beneficiary enterprises by July 2004.

14. Twenty two (22) individual foam conversion projects are currently under way and at different stages of implementation. The estimated phaseout of all individual projects will reach 127.42 ODP tonnes. As of April 2005, 18 out of 22 projects were completed and final verification visits were done by DOE and CETEC. Approximately USD 615,500 have been disbursed to date. The remaining projects are ongoing, with expected completion dates in the first semester of 2005.

15. Four additional enterprises have come forward to participate in the NCFCP. The Group Coordinator for this project has submitted project proposals for all eligible enterprises. DOE has reviewed the proposals, and some modifications are being made to the original documents.

### **3.4 Refrigerant Service Sector (RSS)**

16. In accordance to the approved NCFCP document, a proposal for the Sector Implementation Plan (SIP) of the Refrigeration Service Sector (RSS) and the Terms of Reference (TOR) for the project's GC, have been prepared by DOE. The project is expected to begin implementation in early 2005.

17. A summary of Industry Actions carried out during 2004 is summarized in Table 4:

**Table 4: Industry Actions (Sub Projects) carried out in CY 2004**

NO	CY2004	OBJECTIVES	Increase technical capacity of the MAC service workshops
	Certification of ATC (Train the Trainer Prog.) Certification of Technician MAC Service Workshop	TARGET GROUP	Authorized Training Centers (ATC) and MAC service workshops
		IMPACT	Reduction of CFC-12 consumption in MAC service and proper handling and good workshop practice
	DESCRIPTION	STATUS/REMARKS	
1	Certification of ATC Train-the-Trainer Program (TTP)	<ul style="list-style-type: none"> <li>Group coordinator (GC) was appointed as consultant for the period of 2003-2006 to carry out activities under MAC Servicing Sector.</li> <li>Under the concept of TTP, 30 MAC service workshops were appointed as Authorized Training Centres (ATC) and undergone 4 days training in January 2004.</li> <li>All ATC received 2 sets of MAC basic tools and R&amp;R Machines via voucher subsidy scheme in April 2004.</li> <li>As stated in LOI, ATC are required to train another 3000 MAC service workshop (until 2006) under the CSTP.</li> <li>Out of 1500 targeted in 2004, 1441 workshops attended CSTP which was conducted by ATC/GC/DOE. Out of 1441, only 1329 workshops qualified to receive voucher (valued USD 1100 per workshop) to procure MAC basic tools.</li> <li>89 series of CSTP were organized in 2004.</li> <li>In 2004, 143 workshops have been visited and verified for R &amp; R voucher.</li> </ul>	

NO	CY2004	OBJECTIVES	To reduce amount of ODS used in manufacturing Industry process
	Phasing out CFC via Conversion to non-CFC in the solvent industry	TARGET GROUP	SME (Manufacturing Industries)
		IMPACT	Phase out the use of TCA 111 in SMEs
	DESCRIPTION	STATUS/REMARKS	
1	Identification of remaining users of CFC 113, TCA 111 and CTC	<ul style="list-style-type: none"> <li>Based on final survey for remaining CFC users in SME (Manufacturing), only one project considered qualified to receive financial assistant.</li> <li>Project proposal completed and under evaluation. Project plans to phase out 8 MT of 111-TCA. Completion date is expected by the end of 2005.</li> </ul>	

NO	CY2004	OBJECTIVES	To phase-out the use of CFC 11 in the manufacturing of polyurethane foam and conversion to non CFC process
	Conversion to non ODP In the Foam Manufacturing Industries.	TARGET GROUP	SMEs manufacturing foam, cold rooms, bonded trucks, boats, cushions, refrigeration systems, etc.
		IMPACT	Reduction of CFC 11 in manufacturing process
	DESCRIPTION	STATUS/REMARKS	
1	Status of group sub-project and individual sub-projects.	<ul style="list-style-type: none"> <li>• Consultant/GC was appointed in January 2003</li> <li>• A group project including 14 SMEs has been completed in July 2004. Total phaseout amounted to 10.25 ODP tonnes of CFCs</li> <li>• As of April, 2005, 18 out of 22 individual projects (127.42 MT CFC) have been completed and final verification visits done by DOE and CETEC. The rest are targeted to be completed before May 2005.</li> </ul>	

#### 4. GOVERNMENT ACTION

##### 4.1 Project Management Unit (PMU)

18. The PMU started operations in January 2004. A summary of their activities is included in Table 5.

**Table 5: Activities carried out by PMU in CY 2004**

NO	CY2004	OBJECTIVES	To provide Government with necessary support to carry out all activities proposed under this plan
	Project Management Unit	TARGET GROUP	Department of Environment
		IMPACT	Strengthen capacity of Government to carry out the NCFCP to ensure timely and effective preparation and execution of the project activities
	DESCRIPTION	STATUS/REMARKS	
1	Set up of PMU	<ul style="list-style-type: none"> <li>• 4 staff members: Technical Officers (2), Public Outreach Officer, and Project Accountant started of work in January 2004. They are put under supervisor of the Ozone Protection Section in Air Division.</li> <li>• Due to limited space in current DOE Head Office, PMU staff together all staff in Air Division moved to the new office at IOI Resort, Putrajaya.</li> </ul>	



2	Public Awareness Activities	DOE HQ jointly organized with Penang DOE State Office a seminar during celebration on International Ozone in September 2004. DOE also jointly organized seminars and workshops on RAVH Refrigerant Conference with MASHRAE (September 2004), 3 Series of Hands-on- Training on Chillers Refrigerant (CRTM) with MASHRAE, Seminar on Chemical Convention (May 2004) with Institute of Chemical Malaysia, 89 series CSTP for MAC servicing workshops (June-Oct. 2003), Training on Refrigerant and Halon Management Regulations for Petronas staff (June 2003), celebration on International Ozone Day by disseminating information on NCFCP and on Government policy to relevant stakeholders.
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## 4.2 Regulatory Actions

19. A summary of regulatory actions that have been implemented by the Government of Malaysia as part of the NCFCP is presented in Table 6. These include regulations that have been put in place since the year 2000. However, in 2004, two new important regulatory developments took place, as described below:

- (a) Announcement of a ban on the use of CFCs in the manufacturing sector by the end of 2005. This announcement was initially made in a statement by the Minister of Environment at the November 2004 Meeting of the Parties to the Protocol in Prague. The announcement of the ban was also published in local newspapers in December 2004 and in January 2005, when enterprises of the manufacturing sector were invited, one final time, to participate in the NCFCP. This announcement was a regulatory commitment of the Malaysian Government under the NCFCP Agreement (*i.e.* 2004 Performance Target). By the time the ban becomes effective, the majority of SMEs in the solvent, refrigeration and foam sectors that could be affected by the ban will either have undergone conversion under the NCFCP or be part of ongoing conversion projects that will be close to completion.
- (b) An amendment of the Malaysian Refrigerant Management Law was approved by Cabinet and became operational on December 1, 2004. The amendment includes, among others, the following new requirements: a) all refrigeration service shops (including MAC) are required to be equipped with R&R units; and b) all service technicians must be trained and certified.
- (c) Mandatory inspection of MAC systems of private and commercial vehicles has been implemented, effective December 2004. The new requirement will be enforced by Puspakom and DOE.

**Table 6: Activities carried by Government in CY 2004**

No	POLICY / ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
1.	Control of import quota through AP system <sup>1</sup>	January -December 2004	Import control policy in place and in operation since 2000
2.	Announcement of Import Quotas for CFCs from 2002-2010 <sup>2</sup>	Since December 2001	Announcement of import quotas for 2003 was done in December 2002
3.	Criteria and procedures for financial support for investment projects <sup>2</sup>	January-December 2004	Completed for foam sub-sector.  Revised appraisal report for 14 SME and 22 individual projects under foam phase-out project have been approved by WB.  Verification for 6 new and last projects to phase-out 75 MT CFCs has been completed. The project proposal being prepared by the GC.
4.	Announcement of Mandatory MAC Inspection Requirement	December 2004	
5.	Government announced the ban of CFCs in the manufacturing sector to be implemented by the end of 2005 <sup>3</sup>	January 2006	Announcement in statement by the Minister of Environment in November 2004, later published in local newspapers
6.	Amendment of Refrigerant Management of 1999	December 2004	Cabinet approved the Refrigerant Management amendment, which became effective on December 1st 2004.
7.	Air Quality Improvement and Ozone/NCFCP Seminar	28 September 2004	Completed. Attended by 250 participants.
8.	Training on Chiller and Refrigerant Management (CRM),	18-19 May 2004 25-26 August 2004 6-7 October 2004	Completed. 60 chillers operators and high rise building owners received training certificate.
9.	Training Course on NCFCP and Halon Management Regulations for Petronas Officers	31 March 2004	Completed. Attended by 20 officers.

<sup>1</sup> 2002 Performance Target<sup>2</sup> 2003 Performance Target<sup>3</sup> 2004 Performance Target

No	POLICY / ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
10.	Seminar on NCFCP and ODS Regulations	11 May 2004 22 May 2004 30 September 2004	Completed. Jointly organized with the Chemical Institute of Malaysia. Attended by 150 participants.
11.	Road show on promotion of CSTP for Car Air-Cond. Servicing Workshops.	March-June 2004	Completed. Attended by 400 MAC service workshops.
12.	Celebration the International Ozone Day	16 September 2004	Completed
13.	RAVH International/ Refrigeration and Air Conditioning Conference	30 September 2004	Completed
14.	Exhibition for the Consumer Day (by DOE State Offices)	23-26 September 2004	Completed
15.	Advertisement for invitation to participate in CSTP and CFC Phase out Project.	16 January 2004	Completed
16.	Publication and printing for NCFCP, pamphlets, poster, sunshade, 2005 Calendar and ODS Folder, SITM, COTM and CFC-free MDIs for awareness program.	February-November 2004	Completed
17.	Updated DOE MP webpage	August-November 2004	Completed

## 5. BUDGET AND FINANCIAL PERFORMANCE IN 2004

Table 7: Financial performance 2004

No.	Activity	Planned Expenditure (USD)	Actual Expenditure (USD)
1.	Conversion of Seasonair sub-project	340,751	305,890
2.	Conversion in Foam/commercial refrigeration Sectors	1,250,000	556,500
3.	MAC servicing --Train-the-Trainer	250,000	271,545
4.	MAC servicing -- Financial subsidy	1,100,000	200, 434

<b>No.</b>	<b>Activity</b>	<b>Planned Expenditure (USD)</b>	<b>Actual Expenditure (USD)</b>
5.	MAC – Mandatory training	250,000	146,225
6.	Conversion in solvent sector	300,000	0
7.	Refrigeration –Train-the-Trainer	0	0
8.	Refrigeration --Financial subsidy	0	0
9.	TA for MDI	50,000	50,331
10.	Custom training	134,000	106,490
11.	PMU	523,000	334,173
	<b>TOTAL</b>	<b>3,098,251</b>	<b>1,971,018</b>

## PART II - 2005 ANNUAL PLAN

### 1. TARGETS

Table 8: National Targets

Target (ODP Tons)					
Indicators		Preceding Year (2004)	Year of Plan (2005)	Reduction from previous year	
Supply of ODS	Max. allowable import	1,188.5	717.7	470.8	
	Actual imports (2004) or planned imports (2005)	1,140.0	717.7	422.3	
Demand of ODS projected in NCFCP	Manufacturing	147.8	37.5	110.3	
	Servicing	992.2	680.2	312.0	
	<b>Total</b>	<b>1,140.0</b>	<b>717.7</b>	<b>422.3</b>	

### 2. INDUSTRY ACTION

Table 9: Industry Targets

Sector	Consumption Preceding Year 2004 (ODP MT)	Target Consumption Year of Plan 2005 (ODP MT)	Reduction Within Year of Plan	Number of Projects Completed	Number of Servicing Related Activities	ODS Phase-out (ODP tonnes)
<b>Manufacturing</b>						
Aerosol	----	----	----	----		----
Foam	142.4	37.5	104.9	16		104.9
Refrigeration	----	----	----	----		----
Solvents	5.4	----	5.4	1		5.4
Other	----	----	----	----		----
<b>Subtotal</b>	<b>147.8</b>	<b>37.5</b>	<b>110.3</b>	<b>17</b>		<b>110.3</b>
<b>Servicing</b>						
Refrigeration and air conditioning	992.2	680.2	312.0	-	8	312.0
<b>Subtotal</b>	<b>992.2</b>	<b>680.2</b>	<b>312.0</b>	<b>-</b>	<b>8</b>	<b>312.0</b>
<b>GRAND TOTAL</b>	<b>1,140.0</b>	<b>717.7</b>	<b>422.3</b>	<b>17</b>	<b>8<sup>4</sup></b>	<b>422.3</b>

<sup>4</sup> Eight activities are (i) Operation of MASHRAE Project, (ii) Chiller Replacement/Retirement, (iii) Retirement of CFC-12 Domestic Refrigerators, (iv) Retirement of CFC-12 Refrigerator Containers, (v) New Vehicle Inspection Requirement Upgrading Capacity of Inspection Stations, (vi) Train-the-Trainer Program and Certification of MAC Service Technicians, (vii) Financial Subsidy for R&R Machines; and (viii) Customs ODS Training Program.

### 3 TECHNICAL ASSISTANCE ACTIVITIES PLANNED

#### 3.1 MDI Program

20. Three to four series of stakeholders Working Group (WG) meetings will be conducted in 2005. During the first WG meeting in January 10, 2005, participants agreed to organize two road shows to promote the CFC-free MDI Strategy. Healthcare awareness information and pamphlets related to the National Strategy were published in February 2005 for distribution at these road shows.

#### 3.2 MAC Inspection Program (PUSPAKOM)

21. In 2005, DOE plans to reproduce the Standard Inspection Training Manual (SITM) as well as stickers and pamphlets related to program inspection. To date, 1,000 out of 1,500 targeted MAC service workshops have received notification letters requesting them to comply with the Refrigerant Management Amendment Regulations of 2004. In promoting the regulation, roughly 1,000 to 1500 workshops will be targeted for verification and inspections in 2005.

22. Refresher training programs will be jointly conducted with Puspakom in May 2005. Assessment of performance of the program will be made before procurement of additional sets of Refrigerant Identifiers is carried out by the end of 2005.

#### 3.3 Custom-ODS Training Program (COTP)

23. Three (3) series of Customs ODS Training Programs (COTP) will be jointly organized by AKMAL and DOE in 2005. These training workshops are designed to expose Custom Enforcement Officers to NCFCP program developments. Training will also include data entry workshops for ODS officers at custom entry points, staff from the Department of Statistic, the National Audit Department, MITI and the Economic Planning Unit (EPU). It is expected that 150 additional officers will be trained by the end of 2005.

24. A summary of Technical Assistance activities planned as part of the NCFCP in 2005 are summarized in Table 10.

**Table 10: Planned technical assistance activities for CY 2005**

NO	(CY2005) PROPOSED ACTIVITY	OBJECTIVES	To increase awareness on CFC MDI transition plan
	CFC in MDI Sector	TARGET GROUP	Pharmaceutical Association, Doctors, MDI Importers, and Patients
		IMPACT	To promote the use of non-CFC MDI
	DESCRIPTION	STATUS/REMARKS	
1	Selection of consultant Development of strategy	<ul style="list-style-type: none"> <li>• WG chaired by NPCB will meet every 3-4 months.</li> <li>• Republishing and distribution of the national strategy and pamphlets will be carried out in first quarter of 2005.</li> <li>• 2 series of road shows awareness programs will begin in June 2005.</li> </ul>	

NO	(CY2005) PROPOSED ACTIVITY	OBJECTIVES	Prevention of R134a MAC system to be retrofitted with R12 (CFC-12) (reverse retrofitting)
	MAC Inspection	TARGET GROUP	PUSPAKOM, RTD and DOE State Offices Commercial and Private car owners
		IMPACT	Reduction of CFC-12 consumption in MAC service sector and increase awareness of vehicle's owners
	DESCRIPTION	STATUS/REMARKS	
1	Status	<ul style="list-style-type: none"> <li>Notification letter to comply with amended regulation have been distributed since February 2005. Besides that verification and monitoring of MAC service workshops has been carried out since early March 2005. In addition to reproducing pamphlets, meetings and dialogs with Puspakom will be scheduled in early 2005.</li> </ul>	
2	Amendment to Environmental Regulation (Refrigerant Management) 1999 and other regulations under Road Transport Act /RTD	<ul style="list-style-type: none"> <li>EQ (Refrigerant Management) (Amendment) Regulations 2004 was published on December 1, 2004.</li> <li>It was targeted 1000-1500 notification to comply with the regulation will be issued to MAC service workshop in 2005.</li> </ul>	
3	Procurement of equipment and delivery	<ul style="list-style-type: none"> <li>Based on assessment on the performance of programs, 20-30 RI will procured in early 2006.</li> </ul>	

NO	(CY2005) PROPOSED ACTIVITY	OBJECTIVES	Build technical capacity of custom officials to monitor the import of ODS
	Customs Training Program	TARGET GROUP	Custom officials and DOE State Officers
		IMPACT	Strengthen effectiveness of import control system of CFC
	DESCRIPTION	STATUS/REMARKS	
1	Development of a Custom-ODS Training Manual (COTM) and Course	<ul style="list-style-type: none"> <li>DOE and the Custom Training Centre (AKMAL) planned to organize 3 series of Custom ODS Training Programs (COTP) in Sabah (May), Langkawi (Sept) and Melaka (December). Approximately 150 Customs and various agencies officers are expected to participate.</li> </ul>	
2	Training and Procurement of equipment	<ul style="list-style-type: none"> <li>Retraining for RI use has been conducted by the Perlis DOE State Office on February, 2005. 75 officers from Customs, Puspakom, RTD and DOE officers in the Northern Region participated.</li> <li>It is expected that 50 additional DOE enforcement officers from DOE's State Offices and Puspakom officers to participate in the RI Retraining Program and the ODS regulations on April 18, 2004.</li> <li>Based on the number of vouchers (R &amp; R and MAC tools) which will be distributed in 2005, it is expected that 400-600 units of R &amp; R and 1000 MAC tools will be procured by the end of 2005. Total cost for this procurement is around USD 2 million.</li> <li>In addition, procurement for 141b machines for foam phase-out project will be purchased by the beneficiaries via for identified suppliers approved by the DOE.</li> </ul>	

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## **4 INDUSTRY ACTION (SUB PROJECT)**

### **4.1 MAC Servicing Sector**

#### Certification of ATC – Train the Trainer Program (TTP)

25. Refresher training workshops under the TTP will be conducted in November 2005. Additional copies of the R&R Training Manual, the poster for Code of Good Work Practice for the MAC sector, and pamphlets for Standard Operating MAC Procedures will be reproduced in July 2005 for distribution at these workshops.

#### Procurement of Equipment (R & R CFC 12 and MAC Tools)

26. The distribution of vouchers for procurement of MAC Basic Tool kits is ongoing. It is estimated that by the end of 2005, the remaining 1,200 MAC workshops that were identified and certified by the program will receive their vouchers.

27. In February 2005, DOE started conducting field visits to certified MAC workshops, in order to verify which ones would be eligible to receive vouchers for R&R units (in addition to those for Basic Tools). To date, 251 out of 337 workshops that have been certified as eligible for MLF funding have actually received their vouchers. It is expected that an additional 400 to 600 workshops will receive R&R vouchers by the end of 2005.

28. Procurement of R&R units started in April 2005. The Group Coordinator (GC) and ATCs will assist DOE with procurement and distribution of the equipment. The process of procurement, distribution, installation and commissioning for both MAC Basic tools and additional R&R units is expected to be completed by November 2005. The total cost of procurement was estimated around USD 3.66 million, which was scheduled to be disbursed from April to November 2005.

#### Certification of Service Technician Program (CSTP)

29. It is estimated that an additional 1,500 MAC service workshop technicians will participate in the Certification of Service Technician Program (CSTP) in 2005. The CSTP is part of the new requirements under the Refrigerant Management Amendment Regulation of 2004, which was announced and published in December 2004. Additional advertisement inviting MAC workshops to participate in CSTP was published in the local newspapers in January 2005. More participants expected throughout the year due increased advertisement and to enforcement efforts carried out by DOE. Additional public awareness activities have been prepared throughout 2005.

30. An additional 50 to 60 series of CSTP will be jointly conducted by ATC, GC and DOE in 2005. To date, 1,569 technicians have been trained by the ATCs around the country. From these, 1,456 MAC Basic tools vouchers will have been distributed to the corresponding service shops by the first quarter of 2005.

### **4.2 ODS Solvent Study**

31. One final advertisement inviting enterprises in the solvent sector to participate in the NCFCP was published in January 2005. However, only one enterprise consuming 111-TCA has been identified as eligible to receive financial assistance from. The enterprise is Seasonair Sdn Bhd, which has a consumption of 8 MT of 111-TCA. The project proposal has been prepared and is undergoing final revisions prior to its implementation. The project is expected to be completed by the end of 2005, and would represent the closure of the solvent sector.



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### **4.3 Foam Phase-Out Project**

32. As of April, 2005, 18 of 22 individual projects in the foam sector have been completed and final verification visits have been conducted by DOE and CETEC. As of April 2005, total disbursements under this component reached USD 615,500 with a phase out of 104.26 ODP tonnes of CFC. The remaining four projects in this sector are expected to be completed by mid 2005. The estimated costs for the rest of conversion are USD 638,606 with an additional phase out of 23.16 ODP tonnes.

33. Six additional conversion projects were identified. However, only four project proposals were prepared, as two of the pre-identified enterprises are taking their own initiative to convert to non-ODS process. The total CFC to be phased out is 75 ODP tonnes with an estimated cost of USD 420,000. All 4 projects are expected to be completed by the end of 2005.

### **4.4 Refrigeration Servicing Sector (RSS)**

34. The terms of reference for the selection of a Group Coordinator for the Refrigeration Servicing Sector component of the NCFCP were published in local news papers on March 15, 2005. A total of three bidders submitted proposals, and a presentation by the candidates were held on April 11, 2005. The committee for GC assessment and selection, which comprises of PMU and NOU, selected a GC on April 19, 2005.

35. The RSS program is expected to begin in June 2005 and will carry on until December 2007. In promoting RSS, DOE has planned to organize awareness seminars and dialog meetings with members of MACRA and other of commercial refrigeration service contractors in May 2005.

### **Certification of ATC – Train the Trainer Program (TTP)**

36. It is expected that the Train-the-Trainer Program for the RSS component of the NCFCP will begin after the appointment of the GG. DOE intends to select a maximum of fifty training centres throughout Malaysia to be 'Authorized Training Centres' (ATC). Each qualified applicant to ATC will have to attend training under the Train-the-Trainer Program. After undergoing accreditation, each ATC will be required to conduct training programs for other refrigeration service workshops within their region (Certification of Service Technician Program). Each qualified ATC will receive a set of basic tools for refrigeration service and a set or Recycle and Recovery (R&R) Machines.

37. A summary of industry actions planned for 2005 is included in Table 11.

**Table 11: Industry Action (Sub Project) that will be carried out in CY 2005**

NO	(CY2005) PROPOSED ACTIVITY	OBJECTIVES	Increase technical capacity of the MAC service workshops Authorized Training Centres (ATC) and MAC service Workshops
	DESCRIPTION	TARGET GROUP	STATUS/REMARKS
IMPACT			
1	Certification of ATC (Train the Trainer Program) Certification of MAC Service Workshop Technicians	<ul style="list-style-type: none"> <li>All 30 ATC are expected to conduct training of 3,000 MAC service workshop technicians by 2006.</li> <li>It is expected that another 1,500 car workshops will have participated in CSTP by the end of 2005. To date 1,569 service technicians and MAC service workshops have participated in CSTP.</li> </ul>	
2	Procurement of Equipment (R&R and MAC Service tool)	<ul style="list-style-type: none"> <li>It is expected 400-600 units of R &amp; R and 1000 MAC tools will be procured by the end of 2005.</li> <li>Procurement, training, installation and commissioning of R &amp; R and MAC tools will complete before December 2005.</li> </ul>	
3	Certification of Service Technician Program (CSTP)	<ul style="list-style-type: none"> <li>By the end of 2006, expected 3,000 service workshops will receive the basic tools (R 134a tools) and 800 service workshops will receive R&amp;R subsidy. To date, voucher for MAC tools were sent to 1,456 MAC service workshops that have attended and passed CSTP. Since January-April 2005, 251 out of 800 vouchers for R &amp; R have been distributed.</li> <li>Verification, inspection and selection for workshops and voucher for R &amp; R will be continued to carry out until November 2005.</li> </ul>	

NO	(CY2005) PROPOSED ACTIVITY	OBJECTIVES	To reduce amount of ODS used in manufacturing Industry process
	DESCRIPTION	TARGET GROUP	STATUS/REMARKS
IMPACT			
1	Phasing out CFC for Solvent Sector	SME (Manufacturing Industries)	
2	Preparation of proposal	Phase out the use of CFC-113, 1,1,1 TCA and CTC in SME	
1	Identification of remaining users of CFC 113, 1,1,1TCA and CTC	<ul style="list-style-type: none"> <li>Based on survey, site verification and discussion with major solvent based suppliers only one SME (Seasonair Sdn Bhd) project proposal has been developed.</li> </ul>	
2	Preparation of proposal	<ul style="list-style-type: none"> <li>Project proposal is undergoing final revisions. An estimated 8 ODP tonnes of 111 TCA will be phase out from the project in the end of 2005.</li> </ul>	

NO	(CY2005) PROPOSED ACTIVITY	OBJECTIVES	To phase-out the use of CFC 11 in the manufacturing of polyurethane foam and conversion to non CFC Process
	Conversion to non ODP In the Foam Manufacturing Industries.	TARGET GROUP	SME in manufacturing of FOAM, cold rooms, Bonded trucks, boats, cushions, refrigeration systems etc.
		IMPACT	Reduction of CFC 11 in Manufacturing process
NO	DESCRIPTION	STATUS/REMARKS	
1	Status of program	<ul style="list-style-type: none"> <li>As of April 2005, 18 out of 22 industries (Individual Project) have completed their projects and final verification visits done by DOE and CETEC. Another 4 enterprise are targeted to complete their project by May 2005.</li> <li>4 new and last projects have been qualified under the individual sub-project. The project proposal prepared by GC has been reviewed by DOE and returned to the GC for amendments. The project is expected to phase out 75 MT of CFC by the fourth quarter of 2005.</li> </ul>	

#### 4.5 Project Management Unit (PMU)

38. Several public awareness events have been arranged and are expected to take place in 2005. These include: a) road-shows; b) media advertisement; and c) distribution of posters and other printed materials. It is estimated that USD 94,170 will be disbursed in PR-related activities by the end of 2005.

39. The PMU is preparing the 2005 Awareness Program, as well as a long-term National Strategy on Awareness and Action Plan. These plans will include details of all the programs that will be conducted as part of all DOE's awareness activities.

40. A summary of planned PMU activities for 2005 is included in the following table:

**Table 12: Planned activities for the PMU in CY 2005**

NO	(CY2005) PROPOSED ACTIVITY	OBJECTIVES	To provide Government with necessary support to carry out all activities proposed under this plan
	Project Management Unit	TARGET GROUP	DOE
		IMPACT	Strengthen capacity of Government to carry out the NCFCP to ensure timely and effective preparation and execution of the project activities
NO	DESCRIPTION	STATUS/REMARKS	
1	Set up of PMU	<ul style="list-style-type: none"> <li>PMU was established in January 2004 will continue the service for another year.</li> </ul>	
2	Public Awareness Activities	<ul style="list-style-type: none"> <li>NOU/PMU staff expected to attend the following meetings: 2005 SEAP ODS and Customs Meeting (20-25 April, Beijing), 9<sup>th</sup> Annual Meeting of FA (31 March- 1 April, Washington DC), 25<sup>th</sup> OEWG/Extraordinary Meeting (June, Geneva), 2005 SEAP ODS Meeting ( Iran, November) and 17<sup>th</sup> MOP (Nov, Senegal)</li> </ul>	
3	Regulatory Support	<ul style="list-style-type: none"> <li>An amendment of the EQ (Refrigerant Management) (Amendment) Regulations (1999) has been entry into force in 1<sup>st</sup>. December 2004.</li> </ul>	

## 5. GOVERNMENT ACTION

### Verification of the ODS Consumption Level and Financial Audit.

41. The Government commissioned its 2004 consumption verification report. All 2004 ODS import data, as well as the 2005 financial report was sent to the National Audit Department (NAD), as has been done in previous years. The audit is expected to be completed by mid-2005.

### Mandatory Inspection Requirement of Commercial Vehicles

42. Under this program, DOE already procured 28 RI units for PUSPAKOM and 34 RI units for DOE State Offices in 2004. A refresher hands-on training workshop on the use of RI for DOE and PUSPAKOM staff was conducted in 18 April 2005. The promotion and national campaign on CFC inspection for vehicles at the national level was carried out in 25 April 2005.

### ODS Awareness Activities

43. DOE plans to carry out public awareness activities to increase knowledge and awareness of the enterprises and the public of the government policies pertaining to completed phase out of CFC, TCA, and CTC.

44. Key awareness activities for Government actions under NCFCP are summarized in Table 13 below.

**Table 13: Key Government actions under NCFCP in 2005**

NO.	POLICY/ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
1.	Control import quota for CY2005 through AP system <sup>1</sup>	Since 2002	On going. Import control policy in place and in operation
2.	Verification of import quota for CY2004  Verification of Financial for CY2004	July 2005  4-7 April 2005	On going  On going. 2005 Financial report sent to the National Audit Department on Feb. 2005. Audit works carried out on 4-7 April 2005.
3.	Announcement of Import Quotas for CFCs from 2002-2010 <sup>2</sup>	Since December 2002	The AP advisory Committee chaired by MITI met in 10 January 2005. Only 14 suppliers were allowed to import 700 MT CFC in 2005.
4.	Criteria and procedures for financial support for investment projects <sup>2</sup>	Established since 2000	On-going for the final solvent and 4 new commercial refrigeration sub-sectors

<sup>1</sup> 2002 Performance Target

<sup>2</sup> 2003 Performance Target

NO.	POLICY/ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
5.	Announcement of Mandatory MAC Inspection Requirement	Since December 2004	
6.	Government announced the ban of CFCs in the manufacturing sector to be implemented by the end of 2005 <sup>3</sup>	From January 2006	Announcement in statement by the Minister of Environment in November 2004, later published in local newspapers
7.	Amendment of Refrigerant Management Law of 1999	From December 2004	Cabinet approved the Refrigerant Management amendment, which became effective on December 1st 2004.
8.	Update Yearly National Survey Uses of Methyl Bromide in QPS and non QPS activities	June-July 2005	On going. Survey will be carried out by the Dept. of Agriculture.
9.	Updated National Survey in Chiller Commercial Sector	June-August 2005	Notification letter to comply with EQ (Refrigerant Management) (Amendment) Regulations 2004 will send to 300-400 chiller owners/service contractors.
10.	Hands-on Training for DOE Officers (under MAC sectors, Custom-ODS/COTP and SITM program).	<p>2-4 January 2005 (2005 Program and NCFCP)</p> <p>2 January 2005 (Northern Region) (NCFCP &amp; RI Training)</p> <p>May 2005 (East Region) (NCFCP &amp; RI Training)</p> <p>August 2005 (East Malaysia) (NCFCP &amp; RI Training)</p> <p>December 2005 (Southern Region) (NCFCP &amp; RI Training)</p> <p>18 April 2005 (Retraining -Hand on Training for RI and ODS Regulations)</p> <p>12 May 2005</p>	<p>Completed. Attended by 55 DOE State Officers.</p> <p>Completed. Attended by 75 officers from DOE/RTD/PUSPAKOM/RTD.</p> <p>On going. Will be attended by DOE State Office enforcement officers, customs and PUSPAKOM.</p> <p>On going. Will be attended by DOE State Office enforcement officers, Customs and PUSPAKOM.</p> <p>On going. Will be attended by DOE State Office enforcement officers, customs and PUSPAKOM.</p> <p>Completed. Attended by 50 DOE State Office enforcement and PUSPAKOM officers.</p> <p>On going. Expected 300 chillers</p>
	ODS Regulation Training Course/Road show on Air Pollution and Ozone Protection Regulations (for DOE State Office)		

<sup>3</sup> 2004 Performance Target

NO.	POLICY/ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
		(Promotion and Awareness for RSS Program)  May 2005 (COTP, Series I)  September 2005 (COTP, Series II)  December 2005 (COTP, Series III)  July 2005 (NCFCP/ODS Regulation Training)	service contractors/MACRA members will be attended.  On going. Will be attended by Customs and DOE officers.  On going  On going.  On going. Petronas Officers are expected to participate.
11.	Continue dialog on initiative to promote the use of ODS-free products in all new Government Contracts	December 2005	Meeting with Ministry of Finance/MITI/Ministry of Domestic Trade/NGO/Suppliers- on-going discussion
12.	Project Management Unit (PMU)	January – December 2005	Services for 4 PMU staffs recruited as expert are extended in 2005.
13.	Enforcement/Audit/Verification	February-November 2005	On going activities. Identification potential project and monitoring projects approved by MLF
14.	Develop Strategy – NO new CFC-MAC and Refrigeration System	End of 2005	Identification on options in any new vehicles/On-going discussion
13.	Develop Strategy – Ban the Import/Sale and Use CFC in the MAC and Refrigerator Sector.	End of 2005	Identification of potential guideline/on-going discussion
14.	Seminar NCFCP/Conference /Training Workshop	Awareness Seminar on CFC Free in MDI ( June 2005)  CRSS Training I (8-9 March 2005)  Training Course on Ozone Protection Regulations for Custom Officers (May 2005)	On going. Jointly organize with NPCB and the Pharmaceutical and Asthma Associations.  Completed. Attended by 15 Chiller service contractors and DOE officers. Jointly organize with ODS Centre Sdn Bhd  On going.

NO.	POLICY/ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
	<p>ODS Quiz (For public)</p> <p>Drawing Competition (School children age below 15 years)</p> <p>Writing Competition (School children age 15-18 Years)</p> <p>Exhibition (MASM, Consumer Days etc.)</p> <p>Seminar on MB Alternative</p>	<p>CRSS Training II ( June 2005)</p> <p>National ODS Seminar (16 September 2005)</p> <p>Seminar on Chillers Refrigerant Management ( September 2005 )</p> <p>CRSS Training III (November 2005)</p> <p>Jul-Sept 2005</p> <p>Jul-Sept 2005</p> <p>Jul-Sept 2005</p> <p>Jul-Sept 2005</p> <p>24 Feb. 2005</p>	<p>On going. Jointly organized with ODS Centre Sdn Bhd</p> <p>On going. In celebration of the International Ozone Day and opening by YB Minister.</p> <p>Jointly organize with MASHRAE/IEM</p> <p>Jointly organize with ODS Centre Sdn Bhd</p> <p>On going</p> <p>On going</p> <p>On going</p> <p>On going</p> <p>Completed. Attended by 300 fumigators and government agencies.</p>
15.	<p>MAC Servicing Sector Road Shows.</p> <p>Certification of Service Technician Program (CSTP)/Theory and Hands-on Practical Training for R &amp; R/MAC Program</p> <p>Train the Trainer program (TTP) under RSS Program</p>	<p>March -September 2005 (28-29/3/2005:Kucing) (4/4/2005: J.Bahru) (10/4/2005: Raub)</p> <p>February-November 2005</p> <p>December 2005</p>	<p>On-going. Promotion for ODS Regulations/NCFCP/CSTP.</p> <p>On going. Expected 50-60 series (or 1500 Mac workshops) of CSTP will be conducted by ATC/GC/DOE in 2005.</p> <p>On going. Expected 120 chillers services contractors and DOE Officer will be attended 4 day hands-on training program.</p>
16.	<p>Final announcement in local news paper to stop use CFC in manufacturing sectors and invite to participate in NCFCP</p> <p>Announcement Free CFC in MDI Program</p> <p>Announcement appointment of GC</p>	<p>15 and 17 January 2005</p> <p>8 February 2005</p> <p>15 March 2005</p>	<p>Completed</p> <p>Completed</p> <p>Completed</p>

NO.	POLICY/ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
	and RSS Program		
17.	Printing and Publication: *Reprint of the National Strategy CFC MDI and Awareness Pamphlets *Ozone Bulletin (April-Dec. 2004) *3 Series of the 2005 Ozone Bulletin * Mouse Pad: STOP being a CFC user *Reprint of the Pamphlet for Ozone Protection Section * Sun Shade *Reprint ODS kit *2005 ODS Calendar *2006 ODS Table Calendar *Reprint NCFCP pamphlet *Reprint MAC Training Manual for R & R *Poster for Code of Good Work Practice for RSS * Reprint of the Code of Good Work Practice for MAC *National MB Phase-Out Strategy *National Strategy and Action Plan for ODS Public Awareness *2005 Awareness Program *Reprint of the Pamphlet for MAC Inspection Requirement *Stickers for "Being CFC Free/Ozone	March 2005 March 2005 May, August November March 2005 May 2005 April 2005 July 2005 January 2005 January 2006 July 2005 April 2005 October 2005 June 2005 June 2005 June 2005 July 2005 September 2005	Completed Completed On going Completed On going On going On going Completed On going On going On going On going On going On going On going. Document will be published by the consultant appointed by UNDP/DOA. On going. Document being prepared as guidance for long term strategy to meet the national commitment for free CFC before 2010. On going. Document being prepared as guidance for detail awareness program and promotion activities will carry out for 2005. On going On going



NO.	POLICY/ACTIVITY PLANNED	SCHEDULE OF IMPLEMENTATION	STATUS
	Friendly”  *Reprint of the Pamphlet for List of MAC-ATC  *Save Our Sky-ODS/STOP being used CFC (T shirt)  *Reprint of the Pamphlet for Ozone-MP for School Children/Public  *Reprint of the Pamphlet for Standard Operating Procedure for MAC  *Reprint/Update: 15 Tahun Selepas Ratifikasi/ Document for MP Implementation in Malaysia  *Ozone “exhibition/office display”	May 2005  May 2005  July 2005  June 2005  Nov. 2005  Feb-Nov. 2005	On going  On going  On going  On going  On going  On going. Updated information must be displayed by Ozone Protection Section (OPS).
18.	ODS Web site	February-Dec. 2005	On going. Information must be updated by OPS every 2 months.

## 6. BUDGET FOR 2005

No.	Activity	Planned Expenditures in 2005 (USD)
1.	Conversion of Seasonair sub-project	-
2.	Conversion in Foam/commercial refrigeration sectors	1,058,606
3.	MAC - Training for mandatory inspections	2,649
4.	MAC servicing --Train-the-Trainer	-
5.	MAC servicing -- Financial subsidy of basic tools	2,465,100
6.	MAC servicing -- Financial subsidy of R&R machines	1,200,000
7.	Conversion in solvent sector	300,000
8.	Refrigeration --Train-the-Trainer	200,000
9.	Refrigeration --Financial subsidy	-

<b>No.</b>	<b>Activity</b>	<b>Planned Expenditures in 2005 (USD)</b>
10.	TA for MDI	3,974
11.	Custom training	17,702
12.	PMU – Operation	182,460
13.	PMU – PR	94,170
14.	PMU – Monitoring	254,851
	<b>TOTAL</b>	<b>5,779,512</b>

*Note: Funds remaining from the 2004 allocation will be used to cover activities proposed in the 2005 Annual Plan, since costs will exceed the 2005 allocation.*


**MALAYSIA ODS PHASE-OUT PROJECT : THE NATIONAL CFC  
PHASE-OUT PLAN (NCF CPP)**

**PART 1  
REPORT OF CERTIFIED AUDITOR**

We have audited procedures for issuing quota against the Application Import License executed by the Ministry of International Trade and Industry and import control executed by the Royal Customs Department including supporting documents to certify actual consumption (actual imports) of Annex A, Group 1 Chemicals (i.e. CFCs); 1,1,1-Trichloroethane (1,1,1-TCA); and Carbon Tetrachloride (CTC) for the period 1<sup>st</sup> January 2004 to 31<sup>st</sup> December 2004. These supporting documents are the responsibility of the concerned agencies, the Department of Environment (DOE), the Ministry of International Trade and Industry (MITI), the Royal Customs Department and the Statistics Department. Our responsibility is to express an opinion on these supporting document based on our audit.

We conducted our audit in accordance with Malaysian Approved Standards on Auditing to obtain reasonable assurance about whether the supporting documents for issuing import quota against the Application Import License and import control are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and type of these controlled chemicals that have been issued against the Application Import License and actually imported or exported for the year throughout 2004. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, these procedures and supporting documents can be fairly relied on to support imported amount of these controlled substances for the year throughout 2004 and they are adequately documented.

  
**(NORRIZAN BT TAHIR)**  
For **AUDITOR GENERAL**  
**MALAYSIA**

21 June, 2004.



**MALAYSIA ODS PHASE-OUT PROJECT : THE NATIONAL CFC  
PHASE-OUT PLAN ( NCF CPP)**

**PART II**

**A. Allowable Imported Level of Controlled Substances As Permitted By MITI  
Under The AP System**

No	Name of Importers	Type of Chemical Imported						
		CFC 11 & CFC 12	CFC 113	CFC 114	CFC 115	CC14	CFC 13	CH3 CC13
1.	Aurora Chemicals Sdn. Bhd.	27.14	-	-	-	-	-	-
2.	CCM Chemicals Sdn. Bhd.	74.14	-	-	-	-	-	80.00
3.	Chemquest Trading (M) Sdn. Bhd.	53.00	-	-	-	-	-	-
4.	Daichem Enterprise (M) Sdn. Bhd.	123.14	-	-	-	-	-	-
5.	Globechem Sdn. Bhd.	29.50	-	-	-	-	-	-
6.	Keylargo (M) Sdn. Bhd.	162.14	-	-	-	-	-	-
7.	Nagase (M) Sdn. Bhd.	7.00	-	-	-	-	-	20.00
8.	Perusahaan Kimia Gemilang S/B	117.14	-	-	-	-	-	15.00
9.	Sing Swee Bee Sdn. Bhd.	61.14	-	-	-	-	-	-
10.	ST Chemicals Sdn. Bhd.	130.00	-	-	-	-	-	-
11.	Tesway(M) Sdn. Bhd.	26.14	-	-	-	-	-	-
12.	Texcarrier Industries Sdn. Bhd.	72.00	-	-	-	-	-	-
13.	Unigas (M) Sdn. Bhd.	75.00	-	-	-	-	-	-
14.	Westech (M) Sdn. Bhd.	211.08	-	-	-	-	-	-
15.	Kimia Pertama (M) Sdn. Bhd.	-	-	-	-	-	-	80.00
16.	Contingencies *	-11.56	3.00	-	-	11.50	-	282.00
Total Quota (A)		1157.00	3.00	-	-	-	-	477.00

**Note:**

- Contingencies were set aside for applications for imports of Ozone Depleting Substances (ODS) by Government department / Agencies. Importers may apply for additional quota and MITI can approve by using the contingencies quota if the quantity set aside has not being utilized by any Government Department agencies.

**B. Actual Quantity Of Controlled Substances Imported During The Calender  
Year 2004 (1<sup>st</sup> January 2004– 31<sup>st</sup> December 2004)**

No	Name of Importers	Type of Chemical Imported						
		CFC 11 & CFC 12	CFC 113	CFC 114	CFC 115	CC14	CFC 13	CH3 CC13
1.	Aurora Chemicals Sdn. Bhd.	27.124	-	-	-	-	-	-
2.	CCM Chemicals Sdn. Bhd.	74.120	-	-	-	-	-	19.76
3.	Chemquest Trading (M) Sdn. Bhd.	52.972	-	-	-	-	-	-
4.	Daichem Enterprise (M) Sdn. Bhd.	123.140	-	-	-	-	-	-
5.	Globechem Sdn. Bhd.	29.496	-	-	-	-	-	-
6.	Keylargo (M) Sdn. Bhd.	162.129	-	-	-	-	-	-
7.	Nagase (M) Sdn. Bhd.	7.00	-	-	-	-	-	0
8.	Perusahaan Kimia Gemilang S/B	117.008	-	-	-	-	-	14.82
9.	Sing Swee Bee Sdn. Bhd.	61.140	-	-	-	-	-	-
10.	ST Chemicals Sdn. Bhd.	101.180	-	-	-	-	-	-
11.	Tesway(M) Sdn. Bhd.	26.139	-	-	-	-	-	-
12.	Texcarrier Industries Sdn. Bhd.	72.000	-	-	-	-	-	-
13.	Unigas (M) Sdn. Bhd.	74.820	-	-	-	-	-	-
14.	Westech (M) Sdn. Bhd.	211.088	-	-	-	-	-	-
15.	Kimia Pertama (M) Sdn. Bhd.	-	-	-	-	-	-	79.04
16.	Contigencies *	0	-	-	-	-	-	-
Total Quota (A)		1139.356	-	-	-	-	-	113.62

Difference	CFC 11 & 12	CFC 113	CFC 114	CFC 115	CC 14	CFC 13	CH3 CC13
A-B	17.644	3.00	-	-	-	-	363.38

**C. Reconciliation**

	CFC 11 & 12	CFC 113	CFC 114	CFC 115	CC 14	CFC13	CH 3 CC 13
Total Quota	1157.00	3.00	-	0	-	-	477.00
Total Import	1139.356	0	-	0	0	-	113.62
Reconciliation	17.644	3.00	-	0	-	-	363.38

#### D. Description Of Differences of Quota And Actual Import

Unused quotas by importers and quantities reserved by MITI as 'contingencies' make up the difference as follows :

No	Name of Importers	Type of Chemical Imported						
		CFC 11 & CFC 12	CFC 113	CFC 114	CFC 115	CC14	CFC 13	CH3 CC13
1.	Aurora Chemicals Sdn. Bhd.	0.016	-	-	-	-	-	-
2.	CCM Chemicals Sdn. Bhd.	0.020	-	-	-	-	-	19.76
3.	Chemquest Trading (M) Sdn. Bhd.	0.028	-	-	-	-	-	-
4.	Daichem Enterprise (M) Sdn. Bhd.	0	-	-	-	-	-	-
5.	Globechem Sdn. Bhd.	0.004	-	-	-	-	-	-
6.	Keylargo (M) Sdn. Bhd.	0.011	-	-	-	-	-	-
7.	Nagase (M) Sdn. Bhd.	0	-	-	-	-	-	20.00
8.	Perusahaan Kimia Gemilang S/B	0.132	-	-	-	-	-	15.00
9.	Sing Swee Bee Sdn. Bhd.	0	-	-	-	-	-	-
10.	ST Chemicals Sdn. Bhd.	28.820	-	-	-	-	-	-
11.	Tesway(M) Sdn. Bhd.	0.001	-	-	-	-	-	-
12.	Texcarrier Industries Sdn. Bhd.	0	-	-	-	-	-	-
13.	Unigas (M) Sdn. Bhd.	0.180	-	-	-	-	-	-
14.	Westech (M) Sdn. Bhd.	0	-	-	-	-	-	-
15.	Kimia Pertama (M) Sdn. Bhd.	-	-	-	-	-	-	79.04
16.	Contigencies *	-11.568	-	-	-	-	-	-
Total Quota (A)		17.644	3.00	-	-	-	-	363.38

Note:

- i. ST Chemicals Sdn. Bhd. (No. 10) has imported 101.180 metric tones and has a balance of 28.820 metric tones because of change of management .

**MALAYSIA ODS PHASE-OUT PROJECT : THE NATIONAL CFC  
PHASE-OUT PLAN (NCF CPP)**

**1. INTRODUCTION**

- 1.1 At the 35<sup>th</sup> Meeting of the Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol (ExCom) in December 2001, the Government of Malaysia, through the Department of Environment (DOE), has received a grant fund to implement the Malaysia National CFC Phase-out (NCF CPP) for the phased reduction and complete phase-out of the consumption of Annex A, Group 1 Chemicals (i.e. CFC); 1,1,1-TCA; and Carbon Tetrachloride (CTC) in the country. The Malaysia NCF CPP aims to reduce the negative impacts of the enterprise in light of the world trend and regulatory actions by applying a combination of regulation, monitoring and financial assistance and the program will be implemented through the World Bank.
- 1.2 The ExCom has agreed in principle that it will provide funds to support the activities on an annual basis if Malaysia NCF CPP completes the phase-out of the consumption of CFC; 1,1,1-TCA; and CTC in the year 2010 and the maximum allowable consumption for CFC; 1,1,1-TCA; and CTC for the year 2004 are 1,136 ; 48 ; and 4.51 Ozone Depleting Potential metric tones (ODP mt) respectively. At the same time, the Government of Malaysia should ensure that the import control policy for ODS is in place and operational.

## **2. ANNOUNCEMENT OF IMPORT QUOTAS FOR CFC FROM 2002-2010**

The government of Malaysia will announce import schedule for Annex A, Group 1, chemicals for 2002-2010 within 12 months after funding for this national CFC phase out plan has been approved by the ExCom. No import licences will be given to new importers. The proposed annual quota will be distributed among the 15 importers (that is existing importers at the time imports of CFC was frozen on 7 April 1994) .

## **3. CRITERIA FOR FINANCIAL SUPPORT**

The National CFC Phase out Plan employs a phase out strategy based on a combination of policy and regulatory support. The National phase out plan requires enterprise to be proactive and apply for funds based on rules and guidelines consistent with MLF funding principles.

To attain participation from the industry, the national CFC phase out plan proposes to utilize various incentives structures, including financial and regulatory incentives, designed with the aim of ensuring permanent and sustainable reduction of CFC phase out.

The national CFC phase out plan covers a number of sectors and sub-sectors with different profiles, The National CFC phase out plan also sets specific milestones to be achieved before MLF funds can be provided to Malaysia.

## **4. ANNOUNCEMENT OF THE MAC INSPECTION PROGRAM**

For the year 2005, Department of Environment plans to reproduce the Standard Inspection Training Manual (SITMS) as well as stickers and pamphlets related to program inspection. To date 1000 out of 1500 targeted



MAC service workshops have received notification letter requesting them to comply with the EQ (Refrigerant Management) (Amendment) Regulation 2004. In promoting the regulation, 1000-1500 workshops will be targeted for verification and inspection in 2005.

Meeting and re-training programs will be jointly conducted with PUSPAKOM in May 2005. Assessment on performance of the program will be made in advance to procure another 20-30 sets of RI by the end of 2005.

## **5. BAN ON THE USE OF CFCs IN THE MANUFACTURING SECTOR IN 2005 IN PLACE.**

To ensure that the phase-out in the manufacturing sector is permanent, the Government of Malaysia plans to use the AP system to prohibit the import of all CFCs except for the amounts of CFC-11, CFC-12 and R-502 needed to service the existing stock of equipment from 1 January 2005. While there is no complete phaseout schedule proposed for 1,1,1-TCA and CTC in this plan, the Government of Malaysia considers development of a comprehensive strategy for phaseout of 1,1,1-TCA and CTC as a high priority action.

## **6. PROCEDURES FOR AUDITING**

### **6.1 Verification Of Process For Issuing Of Imports Quota For The Year 2004**

**6.1.1** Audit examination on the process and controls of issuing import quota by MITI for the year 2004 were carried out and the following were observed:

For the year 2004, the Industry Services Division (ISD) of MITI based the allowable quota on Malaysia National CFC Phaseout Plan (NCFCP) for the year 2002-2010. That was to ensure any latest amendments regarding allowable consumption level for Malaysia under the Montreal Protocol will be

taken into consideration before decisions are made on the quota for the year 2004.

- i. Quota for each importer was correctly tabulated and all importers notified of their quota by 15 January 2004.
- ii. Register to record and control the issuance of AP was maintained properly by TSD and kept up to date. Supervising officers has carried out regular checks on the register.
- iii. Importers had submitted their report on actual imports of ODS for the year to ISD.
- iv. The report on the import of ODS for the year 2004 has been prepared and submitted to DOE.

6.1.2 From audit examinations, we are satisfied that MITI has proper controls and adhered to the procedures of issuing quota and approval of the application import licence.

## **6.2 Verification Of Quotas Issued To Importers**

6.2.1 Verification of quotas issued to the following 5 importers were carried out :

- i. Nagase (M) Sdn. Bhd.
- ii. Chemquest Trading (M) Sdn. Bhd.
- iii. Perusahaan Kimia Gemilang
- iv. CCM Chemicals Sdn. Bhd.
- v. Westech (M) Sdn. Bhd.

6.2.2 As a result of audit verification, the following were noted:

- i. The quota for each importer was correctly computed and recorded in the register, with the exception to Chemquest Trading (M) Sdn. Bhd. Statement of CFC 11 and CFC 12 Import Quota for the year 2004 (Miti's Statement ) differs from the register as follows:-

<b>Importer</b>	<b>MITI 's Statement (mt)</b>	<b>Register</b>	<b>Difference between MITI's Statement and register(mt)</b>
Chemquest Trading (M) Sdn. Bhd.	52.972	40.8	12.172

- ii. All additional quota or transfer of quota were approved by the ISD and duly recorded in the register.
- iii. Total quantities in AP as approved by TSD for each importer do not exceed the importer's yearly quota.

### **6.3 Verification Of Customs' Record And Documentation From Importers**

- 6.3.1 The import of ODS by 5 importers as mentioned in paragraph 5.2.1 were verified to Customs' record and importers' documentation. Supporting documents verified are as follows:

i. Nagase (M) Sdn. Bhd.

No.	Type of Supporting Document Verified			Type of Controlled Substances	Quantity (mt)
	Declaration No.	Invoice No.	Bill of Lading No.		
1.	04009793	S-EK-007214	-	CFC11 & CFC 12	3.590
2.	04009793	S-EK-009989	-	CFC11 & CFC12	3.400
<b>TOTAL QUANTITY (CFC 11 AND CFC 12)</b>					<b>6.990</b>

ii. Chemquest Trading (M) Sdn. Bhd.

No.	Type of Supporting Document Verified			Type of Controlled Substances	Quantity (mt)
	Declaration No.	Invoice No.	Bill of Lading No.		
1.	B10105027165	3883	SINCB4489529	CFC11 & CFC 12	13.600
2.	B10108015394	3950	SINCB4531352	CFC11 & CFC 12	13.600
3.	B10104011982	3845	SINCB4468631	CFC11 & CFC 12	13.600
4.	B10109013546	3970	SINCB4546492	CFC11 & CFC 12	12.172
<b>TOTAL QUANTITY (CFC 11 AND CFC 12 )</b>					<b>52.972</b>

iii. CCM Chemicals Sdn. Bhd.

No.	Type of Supporting Document Verified			Type of Controlled Substance	Quantity (mt)
	Declaration No.	Invoice No.	Bill of Lading No.		
1.	B10103011522	930303 & 930304	KKLUSH8909607	CFC 11 & CFC 12	31.280
2.	B1008364	TRE-078E	SNK0011040300219	CFC11 & CFC12	21.760
3.	010853	AD-930703	KMTC-USN090388	CFC11 & CFC 12	13.940
4.	B10101003429	VA04-U1018	HASL9170DC4D753	CFC11 & CFC12	7.140
<b>TOTAL QUANTITY ( CFC11 AND CFC 12)</b>					<b>74.120</b>

iv. Perusahaan Kimia Gemilang S/B

No.	Type of Supporting Document Verified			Type of Controlled Substance	Quantity (mt)
	Declaration	Invoice No.	Bill of Lading No.		
1.	*	*	*	CFC 11	31.28
2.	*	135258	TAI/008455	CFC 11	19.72
3.	*	135649	TBI/008498	CFC 11	8.12
4.	*	*	*	CFC 12	17.952
5.	*	136247	*	CFC 12	9.20
6.	*	137327	TBI/008755	CFC 12	10.88
7.	B1011007707	503/2255	JNPCB4026203	CFC 12	1.904
8.	*	135649	TBI/008498	CFC 12	7.072
9.		135647		CFC 12	10.88
<b>TOTAL QUANTITY (CFC 11 DAN 12)</b>					<b>117.008</b>
10.		137427		CH3 CC13	14.82
<b>TOTAL QUANTITY CH3 CC13</b>					<b>14.82</b>

\* The required information pertaining to the above could not be obtained from the importer during the audit.

v. Westech (M) Sdn. Bhd.

No.	Type of Supporting Document Verified			Type of Controlled Substances	Quantity (mt)
	Declaration No.	Invoice No.	Bill of Lading No.		
1.	B10104020397	WES/Ref/0013	KKLUBOM019429	CFC 11	12.600
2.	B10107633104	124/2068/04-05	JN1CB4022736	CFC 12	16.320
3.	B18104001048	24WZHQ121-1	OOLU88113700	CFC 12	15.504
4.	B10103012623	WES/REF/0316	KKLUBOMO17889	CFC 12	20.000
5.	B18104001047	24WZHQ121-2	00LU88113701	CFC 12	15.504
6.	B10106011400	072/2042/04-05	JN1SB4701386	CFC 12	19.000
7.	B10107034617	LK13846/EXP	PSHPKG04B3597X	CFC 12	15.640
8.	B10107034632	12879		CFC 12	14.960
9.	B10105014603	045/2020/04-05	JN1SB4701151	CFC 12	19.000

10.	B10106030721	12871	PI-406064-PKL	CFC 12	14.960
11.	B10104019127	045/2020/04-05	SIM0B44686411	CFC 12	14.960
12.	B10105022743	53/2029/04-05	NHS/PKL/9086	CFC 12	16.320
13.				CFC 12	16.320
<b>TOTAL QUANTITY (CFC 11 AND 12)</b>					<b>211.088</b>

#### 6.4 Verification Of Department Of Statistics Record

6.4.1. Department of Statistics will extract information from Customs record and key in the data in the computer system. Subsequently they will prepare a monthly report, this report will be submitted to DOE. Based on the report, DOE prepares data on imports using Data form 1 (UNEP/OZI. Pro/Dataform97).

6.4.2 Ozone Depleting Substances (ODS) Consumption in 2004 according to Statistic Department report is as tabulated below :

Bil.	Consumption/Import	Chlorofluorocarbon (CFCs)	1,1,1 Trichoroethane (Methyl chloroform)	Carbon Tetrachloride (CTC)	Methyl Bromide (CH3Br)	Total
1.	Maximum allowable consumption in 2004 (NCFCP/World Bank)	1136.00	48.00	4.51		1188.51
2.	<b>Import Data in 2004 (Statistic Department Report)</b>	<b>1157.00</b>	<b>15.03</b>	<b>0</b>	<b>204.53</b>	<b>1172.43</b>
3.	Actual Import in 2004 (DOE/NAD Import Survey)	1139.356	11.38	0		1150.736

6.4.2 From the above audit examination, we are of the opinion that DOE should not use secondary data from Department of Statistics report alone without verification. As a monitoring agency, DOE should reconcile total quantities imported as reported by Department of Statistics and MITI. Further investigations should be carried out for any discrepancy.