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COMITÉ EJECUTIVO DEL FONDO MULTILATERAL
PARA LA APLICACIÓN DEL
PROTOCOLO DE MONTREAL
Cuadragésima Primera Reunión
Montreal, 17 al 19 de diciembre de 2003

PROPUESTA DE PROYECTO: BRASIL

Este documento contiene los comentarios y las recomendaciones de la Secretaría del Fondo sobre la propuesta del siguiente proyecto:

Eliminación

- Plan nacional de eliminación gradual de CFC (segundo tramo) Alemania, PNUD

HOJA DE EVALUACIÓN DE PROYECTO
BRASIL

SECTOR: Eliminación

Uso de SAO en el sector (2003): 3 000,6 toneladas PAO

Umbrales de relación de costo a eficacia del subsector:

Espumas flexibles en planchas	$EUA 6,23/kg
Revestimiento integral	$EUA 16,86/kg
Rígida	$EUA 7,83/kg

Títulos del proyecto:

(a) Plan nacional de eliminación gradual de CFC (segundo tramo)
(b) Plan nacional de eliminación gradual de CFC (segundo tramo)

Datos del proyecto	**Plan Nacional**	
Consumo de la empresa (toneladas PAO)	1 947,00	
Impacto del proyecto (toneladas PAO)	1 207,00	
Duración del proyecto (meses)	12	
Monto inicial solicitado ($EUA)	1 000 000	5 420 000
Costo final del proyecto ($EUA):		
Costo adicional de capital (a)		
Costo de imprevistos (b)		
Costo adicional de explotación (c)		
Costo total del proyecto (a+b+c)	1 000 000	5,420,000
Propiedad local (%)	100	100
Componente de exportación (%)	0	0
Monto solicitado ($EUA)	1 000 000	5 420 000
Relación de costo a eficacia ($EUA /kg.)		5,31
¿Financiación de contraparte confirmada ?		
Organismo nacional de coordinación	CONAMA	
Organismo de ejecución	Alemania	PNUD

Recomendaciones de la Secretaría		
Monto recomendado ($EUA)	1 000 000	5 420 000
Impacto del proyecto (toneladas PAO)		1 207,0
Relación de costo a eficacia ($EUA /kg)		5,31
Costo de apoyo del organismo de ejecución ($EUA)	90 000	473 000
Costo total al Fondo Multilateral ($EUA)	1 000 000	5 893 000

DESCRIPCIÓN DEL PROYECTO

1. El Gobierno de Brasil presentó en la 41ª Reunión un pedido para que se pusiese a disposición la suma de $EUA 6 420 000 (excluidos los costos de apoyo) para financiar el programa de ejecución para 2004 del Plan Nacional de Eliminación Gradual de CFC de Brasil. Este proyecto se ejecuta con la asistencia del PNUD (el principal organismo de ejecución) y el Gobierno de Alemania, que es el organismo de cooperación para los programas de formación de los técnicos de servicio y los funcionarios aduaneros. El desglose entre ambos organismos de la financiación solicitada para el año 2004 es el siguiente: $EUA 5 420 000 para el PNUD y $EUA 1 000 000 para Alemania.

2. El documento presentado por el PNUD en nombre del Gobierno de Brasil está integrado por:

a) Informe de la ejecución para el bienio 2002-2003 del plan de trabajo de ejecución; y

b) plan de trabajo de ejecución para 2004.

3. Además de los documentos indicados *supra*, Brasil presentó un informe de auditoría independiente relativo a la verificación de la cantidad de CFC eliminado en 2002 y del consumo de CFC que se ha comunicado a la Secretaría del Ozono para el 2002.

Antecedentes

4. Durante la 37ª Reunión del Comité Ejecutivo celebrada en julio de 2002, se aprobó el Plan nacional de eliminación gradual de CFC de Brasil por un valor total de $EUA 26,7 millones y un costo de apoyo del organismo de ejecución de $EUA 2 295 300, aprobado, en principio, para eliminar gradualmente 9 276 toneladas de PAO de CFC. Entre los años 2002 y 2010 se ejecutará el plan en ocho fases (tramos). El primer tramo de $EUA 9,5 millones , con un costo de apoyo del organismo de ejecución de $EUA 835 300, fue aprobado durante la 37ª Reunión, celebrada en junio de 2002, para la primera fase (2002-2003) con una eliminación de CFC prevista de 1 251 toneladas PAO.

5. En la tabla que sigue se presentan los límites de consumo de CFC aprobados y los objetivos de reducción, lo mismo que el esquema de desembolsos en virtud del acuerdo.

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Consumo máximo total autorizado del Grupo Anexo A 1 sustancias (toneladas PAO)	9 276	(9 276)	8 280	6 967	5 020	3 070	2050	1000	424	74	0
Reducción anual total(toneladas PAO)	-	-	996	1 313	1 947	1 950	1 020	1 050	576	350	74
Reducción de los proyectos que se están ejecutando	-	-	745	313	1 210	1 207	0	0	0	0	0

Nueva reducción en virtud del plan	-	-	251	1 000	737	743	1 020	1 050	576	350	74
Financiación total atribuida ($EUA millones)			9,5		6,42	5,27	3,10	1,19	0,87	0,25	0,10
Costo de apoyo del organismo de ejecución($EUA millones)			0,8353		0,563	0,4595	0,2642	0,0923	0,0635	0,0125	0,005

6. El pago de fondos para los programas de ejecución del plan, será desembolsado una vez que:

a) Se haya confirmado que se cumplió con el límite de consumo para el año previo, tal como está especificado en la tabla 1, y con los objetivos de eliminación gradual conexos;

b) Se haya verificado que las actividades planificadas para el año previo fueron efectuadas conforme con el programa de ejecución anual.

7. Los pagos, excluido el pago inicial en 2002, serán desembolsados basándose en la confirmación de que: se ha cumplido con los objetivos de consumo máximo decidido para el año previo; se ha verificado que se efectuó la eliminación gradual de CFC, y de que se efectuó una importante proporción de las actividades planificadas para el año previo, conforme con el plan de implantación anual.

Progreso de la primera fase del plan de trabajo de ejecución

8. En julio de 2002, se le desembolsó al PNUD el primer tramo de $EUA 9.5 millones para la ejecución de la primera fase del plan nacional de eliminación gradual de CFC de Brasil. Sin embargo, la ejecución se demoró debido a las elecciones nacionales en Brasil que se celebraron en 2002. El documento del proyecto fue firmado por el nuevo Ministro para el Medio Ambiente en marzo de 2003. En febrero de 2003, se estableció la Unidad de Ejecución y Supervisión. Se preparó el plan inicial de eliminación gradual con la asistencia de consultores y éste se centró en los sectores de las espumas y en el sector de los servicios de refrigeración y aire acondicionado. Se demoró aún más el proyecto debido a una disposición legal que prohíbe la recuperación y reciclaje en el lugar de sustancias tales como el CFC y el uso de los cilindros prescritos por el proyecto. Esta cuestión fue resuelta gracias a una enmienda legislativa efectuada en septiembre de 2003.

Componente de inversiones

9. La Unidad de Ejecución y Supervisión emprendió estudios, tareas de identificación y de evaluación de los equipos para las empresas de fabricación de espumas receptoras. La Unidad de Ejecución y Supervisión identificó 71 empresas que fabrican espumas rígidas de poliuretano y espumas flexibles de poliuretano para revestimiento integral y 33 empresas que fabrican espumas flexibles de poliuretano.

10. Se prepararon y aprobaron siete proyectos que abarcan 71 empresas receptoras. Se prepararon las especificaciones del equipo y las adquisiciones fueron realizadas por el PNUD. Se ordenaron equipos que serán suministrados por un total de $EUA 1 643 900. Se espera ultimar estos proyectos para finales de 2003. Los proyectos de eliminación gradual para las otras 33 empresas serán ejecutados cuando se desembolse el segundo tramo en 2004. La Unidad de Ejecución y Supervisión identificó 80 empresas del sector de fabricación de refrigeración. Se inició un estudio relativo a los datos del consumo de CFC y para fines de octubre de 2003 se confirmarán las empresas elegibles. Se espera culminar con la adquisición de los equipos a fines de diciembre de 2003. Un aspecto importante de esta actividad de inversiones, es el acuerdo relativo a los compromisos que se firmó entre el Gobierno de Brasil y las empresas receptoras.

Información, regulación y políticas

11. La Unidad de Ejecución y Supervisión ejecutó una serie de actividades informativas para que los participantes estuvieran informados del plan de eliminación gradual de CFC, dentro de las cuales: la publicación de artículos, boletines de información en revistas y periódicos, la distribución de folletos informativos a los ministerios, a las asociaciones mercantiles, etc; la celebración del día del ozono con una estampilla conmemorativa, lo mismo que una semana del ozono en la cual el Gobierno brindó un apoyo activo. El fomento del plan de eliminación gradual en una feria sobre refrigeración institucional, aire acondicionado, ventilación y calefacción y calidad del aire, celebrado en Sao Paulo en septiembre de 2003. La enmiendas al Articulo 7 de la resolución 267 fr CONOMA se aprobó el 25 de septiembre de 2003. La elaboración de una legislación que permita la adquisición de equipo y de cilindros para la recuperación y reciclaje del CFC en los sitios está siendo promulgada en Brasil.

Eliminación gradual de CFC

12. El informe muestra los logros significativos en la eliminación gradual de los CFC. El máximo autorizado de consumo de CFC en 2002 en virtud del Acuerdo era de 8 280 toneladas de PAO, y Brasil registró un consumo de 3 001 toneladas de PAO. Se estima que para 2003 el consumo será de 2 579 toneladas de PAO, un monto significativamente inferior al consumo máximo permitido para el año que es de 6 967 toneladas de PAO. El informe indica que en el bienio 2002-2003 los proyectos existentes lograron eliminar 1 758 toneladas de PAO, cuando el objetivo era la eliminación de 1 523 toneladas de PAO.

13. En 2002 se efectuó una verificación independiente relativa al consumo de CFC y se constituyó un grupo de auditoría independiente, cuyo informe está disponible en la Secretaría. El resumen de las conclusiones es el siguiente:

a) Existen diferencias entre los datos informados utilizando dos fuentes de información (Siscomex o Ibama), pero para el CFC-11 y el CFC-12, el auditor no encontró incoherencias. Los datos recogidos y verificados por la Secretaría del Comercio Exterior (Secex/Siscomex), indican que el consumo informado a la Secretaría del Ozono (utilizando ambas fuentes) era superior en unas 300 toneladas de PAO. Utilizando los datos verificados por Siscomex, el consumo informado sería 2 668,62 toneladas de PAO, de las sustancias del Anexo A, Grupo I. A pesar de las diferencias que presentan las metodologías de

información utilizadas y los procedimientos de confirmación con el registro IBAMA, Brasil ha cumplido con sus objetivos de reducción en virtud del Acuerdo y hasta los ha superado. Además, analizando los nueve meses de datos disponibles en Siscomex en 2003, Brasil cumplirá también con los objetivos para 2003 en virtud del Acuerdo.

b) En relación con la reducción derivada de los proyectos en curso, el auditor confirma que en 2002 se eliminaron 1 184 toneladas de PAO. El auditor señaló que efectivamente se habían finalizado los proyectos, y que la reducción resultante para 2002 refleja el impacto que tuvo el PAO en el momento que se aprobó el proyecto, siendo ésta la manera que fue recogido en el acuerdo y en el inventario de los proyectos del Fondo Multilateral.

Programa de formación

14. Este proyecto implica formar técnicos del servicio de refrigeración en la gestión y conservación de CFC, incluida la recuperación, reciclaje, cambio de equipos refrigerantes y almacenamiento. El proyecto prevé 2 188 cursos de formación que serán impartidos a lo largo de cinco años a unos 35 000 técnicos.

15. La institución nacional asociada que ha sido seleccionada para ejecutar el proyecto de formación de los técnicos es la Organización para la Formación Nacional de Brasil (SENAI). Se ha previsto que a través de la SENAI, se podrá institucionalizar en Brasil de manera sostenible la información sobre la necesidad de eliminar gradualmente el consumo de CFC entre los maestros y los participantes.

16. Las principales actividades ejecutadas durante el periodo que va de agosto de 2002 a septiembre de 2003, incluyen, entre otras cosas:

a) Se creó un funcionario de contacto y comunicación nacional permanente en Brasil, para tratar con los participantes. Además, la representación local del Gobierno de Alemania ha organizado un sistema para efectuar la gestión de los aspectos financieros y administrativos inherentes a los proyectos de formación de técnicos y de funcionarios aduaneros;

b) Se identificó un interlocutor adicional: la Asociación Brasileña de Fabricantes de Dispositivos Domésticos Nacional (ELETROS) que manifestó de manera enérgica su apoyo a las actividades de eliminación gradual de CFC y que ya ha formado a más de 1 500 técnicos de servicio en los talleres de sus miembros, en técnicas de recuperación de refrigerantes y cuestiones relativas al Protocolo de Montreal.

c) Se ha elaborado una base de datos con fines de supervisión y que ya puede ser operativa;

d) EMBRACO, que es el fabricante de compresores herméticos, y que cuenta con la mayor red informativa sobre la refrigeración en el ámbito nacional, se

comprometió a participar en campañas de medios de comunicación para encontrar técnicos de servicio para el proyecto de formación;

e) 32 cursillistas del SENAI completaron de manera exitosa un seminario dirigido a capacitar a los formadores, que ha sido organizado en el marco del proyecto. El SENAI ya ha incluido cuestiones relativas a las mejores prácticas en el servicio de refrigeración y refrigerantes en los mecanismos regulares de formación para la refrigeración en sus escuelas de refrigeración;

f) Se finalizaron las preparaciones para la ejecución total del programa de formación de técnicos y se están elaborando materiales de formación. La formación comenzará no bien esté disponible el equipo de recuperación de CFC-12 para distribuirlo entre los técnicos seleccionados que hayan completado exitosamente la formación y que puedan demostrar un potencial para recuperar el refrigerante CFC-12.

2004 Programa Anual

17. El programa de ejecución anual para 2004 continuará fomentando los objetivos del plan de eliminación gradual. Las actividades del programa de asistencia técnica previstas incluyen la formación en la gestión y la conservación del CFC, incluida la recuperación, reciclaje, recarga, reemplazo del equipo, cambio de equipo y almacenamiento, lo mismo que la formación de los funcionarios aduaneros, en temas conexos con la verificación, reconocimiento, prueba y supervisión de las importaciones de CFC.

18. Durante el año se emprenderán también un cierto número de actividades tendientes a estimular los cambios legislativos y políticos de manera tal que puedan facilitar la ejecución del plan. Otras actividades que no impliquen inversiones incluirán campañas de información públicas sobre el plan de eliminación gradual, lo mismo que las que guardan relación con los servicios de refrigeración y otros proyectos.

19. En la tabla que sigue se presentan las actividades propuestas para la ejecución del plan en 2004 y su costo, tal como esto figura en el documento presentado por el Gobierno de Brasil:

Actividad	**Costo ($EUA)**
Unidad de ejecución y supervisión: Ejecución y supervisión de todas las actividades contenidas en el Plan de trabajo para 2004, incluidas las acciones gubernamentales	400 000
Actividades del proyecto de conversión para eliminar el consumo de CFC en el sector de fabricación de espumas: Hacer progresar y completar la ejecución de los proyectos de conversión en 71 empresas que fabrican espuma de poliuretano rígido y espuma flexible de poliuretano para revestimiento integral, el cual fue preparado y aprobado durante el plan de trabajo de ejecución para el 2002-2003 y para el cual se está adquiriendo equipo. Completar la preparación del proyecto y las actividades de aprobación, iniciar la adquisición de equipos, y hacer avanzar y completar la ejecución de los proyectos de conversión en las 33 restantes empresas elegibles en el sector de la fabricación de espumas flexibles de poliuretano.	1 000 000

Actividad	Costo ($EUA)
Actividades del proyecto de conversión para eliminar el consumo de CFC en el sector de fabricación de la refrigeración comercial: Continuar las actividades iniciadas durante el plan de trabajo de ejecución 2002-2003, completando la preparación y aprobación de proyectos para las empresas elegibles y haciendo avanzar la adquisición de equipos y la ejecución de proyectos lo más rápido posible en todas las empresas.	300 000
Actividades del proyecto de formación de técnicos en el sector de servicios de la refrigeración doméstica y comercial: Proseguir las actividades y expandir el proyecto de formación de técnicos para que en 2004 se termine de formar en el Sudeste de Brasil los técnicos que se habían previsto formar en 2003 y 2004. Ejecución del proyecto, lo que deberá ser coordinado junto con la ejecución de los proyectos de recuperación de CFC-12 y de los centros de recuperación de CFC-12	1 000 000
Actividades del proyecto de recuperación de CFC-12 en el sector de servicios de refrigeración doméstica y comercial: Distribuir los equipos de recuperación de refrigerantes CFC-12 comprados con la financiación de 2002-Plan de trabajo de ejecución 2003, entre los técnicos de servicios seleccionados en la región del sudeste de Brasil que hayan completado exitosamente el proyecto de formación técnica y adquirir equipos adicionales para distribuirlos entre los técnicos seleccionados durante 2004.	1 600 000
Actividades del proyecto del centro regional de recuperación de CFC-12: Seguir haciendo avanzar las actividades de adquisición de equipos iniciadas en 2003, finalizar las obras de ingeniería civil, instalar los equipos y poner en servicio el primer Centro de Recuperación de CFC-12 en Sao Paulo. Ir elaborando las actividades relativas a la organización de un segundo Centro de Recuperación de Río de Janeiro. Seleccionar las empresas que se encargarán del funcionamiento de los dos Centros de Recuperación de CFC-12 adicionales en la región del sudeste de Brasil y adquirir equipos y establecer esos Centros de Recuperación durante 2004.	700 000
Actividades de proyecto de recuperación y reciclaje de CFC en el sector de refrigeración industrial y aire acondicionado central (enfriadores centrífugos): Acelerar las actividades del Proyecto de recuperación y reciclaje del plan de trabajo de ejecución 2002-2003, y extender el proyecto para que incluya la adquisición de todos los equipos que la financiación permita para la recuperación y reciclaje de refrigerante CFC durante el servicio y la reparación de enfriadores centrífugos basados en CFC, que serán distribuidos entre las empresas elegibles que se especializan en estas actividades, y que puedan demostrar la capacidad de recuperar y reciclar los CFC y que desean participar en el proyecto.	213 600
Actividades del proyecto de recuperación y reciclaje de CFC en el sector de servicios del aire acondicionado de vehículos: Acelerar las actividades del Plan de Trabajo de Ejecución 2002-2003 relativas al actual Proyecto Piloto de Recuperación y Reciclaje en el aire acondicionado de vehículos de Sao Paulo y expandir el proyecto piloto para incluir en éste la adquisición de tantos equipos como lo permite la financiación disponible para distribuir entre las empresas de servicio del aire acondicionado de vehículos que puedan demostrar su capacidad para recuperar y reciclar el CFC-12 y desee participar en el proyecto.	1 206 400
Total	6 420 000

COMENTARIOS Y RECOMENDACIONES DE LA SECRETARÍA

COMENTARIOS

20. Brasil ha satisfecho sus objetivos de eliminación gradual, lo mismo que los que atañen a los límites autorizados de consumo de CFC. El consumo notificado por Brasil a la Secretaría del Ozono de CFC para 2002, que alcanzó las 3 000,6 toneladas de PAO y que fue confirmado por una auditoría independiente, alcanza únicamente el 36% del consumo máximo autorizado de CFC para Brasil en 2002 en virtud del Acuerdo. Además, el monto de CFC que debía ser eliminado de los proyectos en curso en el bienio 2002-2003 excedió en un 15%. Brasil también satisfizo otras condiciones en virtud del Acuerdo para desembolsar financiación para los programas anuales.

RECOMENDACIONES

21. La Secretaría del Fondo recomienda la aprobación del pago del monto autorizado y del costo de apoyo asociado para la ejecución del programa anual de 2004 del Plan nacional de eliminación gradual de CFC de Brasil, tal como se indica a continuación.

	Título del proyecto	Financiación del proyecto ($EUA)	Costos de apoyo ($EUA)	Organismos de ejecución
(a)	Plan nacional de eliminación gradual de CFC (segundo tramo)	5 420 000	473 000	PNUD
(b)	Plan nacional de eliminación gradual de CFC (segundo tramo)	1 000 000	90 000	Alemania

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BRAZIL

National CFC Phase-out Plan

Achievements versus Performance Indicators related to the First Phase Implementation Work Plan (2002 – 2003)

Second Phase Implementation Work Plan (2004)

&

Report on First Phase Implementation Work Plan (2002 – 2003)

Prepared by the United Nations Development Programme, the Lead Implementing Agency, and GTZ (Co-operating Executing Agency for the Service Technicians and Customs Training Projects)

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BRAZIL NATIONAL CFC PHASE-OUT PLAN

INTRODUCTION

The Brazil National CFC Phase-out Plan was approved by the Executive Committee of the Multilateral Fund at its 37th Meeting in July 2002. Under the Plan, Brazil will phase-out the consumption of all Annex A Group I CFCs, in all sectors, by 01 January 2010. A total of US$ 26.7 million in MLF funding was approved in principle for implementation of the Plan that includes a phased reduction in CFC consumption over the period 2002 – 2010 according to an agreed schedule enshrined in the "Agreement" between the Executive Committee and the Government of Brazil (UNEP/OzL.Pro/ExCom/37/71, Annex IV - AGREEMENT FOR THE TOTAL PHASE-OUT OF ANNEX A GROUP I SUBSTANCES (CFCs) IN BRAZIL).

To achieve the targeted reductions in CFC consumption, the Plan includes investment, non-investment, technical assistance, and capacity building activities.

The first funding tranche in the amount of US$ 9.5 million was released on approval of the Plan in July 2002 for the implementation of the First Phase Implementation Work Plan covering the period August 2002 – December 2003.

This report covers the progress made in the implementation of the planned activities in the First Phase Implementation Work Plan during the period August 2002 up to the time of reporting in October 2003, and the achievements versus the performance targets specified in the aforementioned "Agreement" related to the first tranche of funding of US$ 9.5 million. Details of the progress made in implementation of the planned activities in the First Phase Implementation Work Plan are provided in Section 3 of this report.

In spite of unforeseen difficulties that delayed progress in implementation of planned activities in the First Phase Implementation Work Plan, the overall performance targets in the "Agreement" have been achieved. Details of achievements versus the performance targets are provided in Section 1 of this report.

UNDP, as the lead Implementing Agency, is submitting the report on implementation activities and achievements in 2002 – 2003 for consideration by the Executive Committee of the Multilateral Fund at its 41st Meeting and requests approval of the Second Phase Implementation Work Plan covering the period January – December 2004 as also contained in this report, and the release of the agreed second tranche of funding in the amount of US$ 6.42 million plus the corresponding support fees for the implementation of the 2004 Implementation Work Plan. The Second Phase Implementation Work Plan covering 2004 is presented in Section 2 of this report.

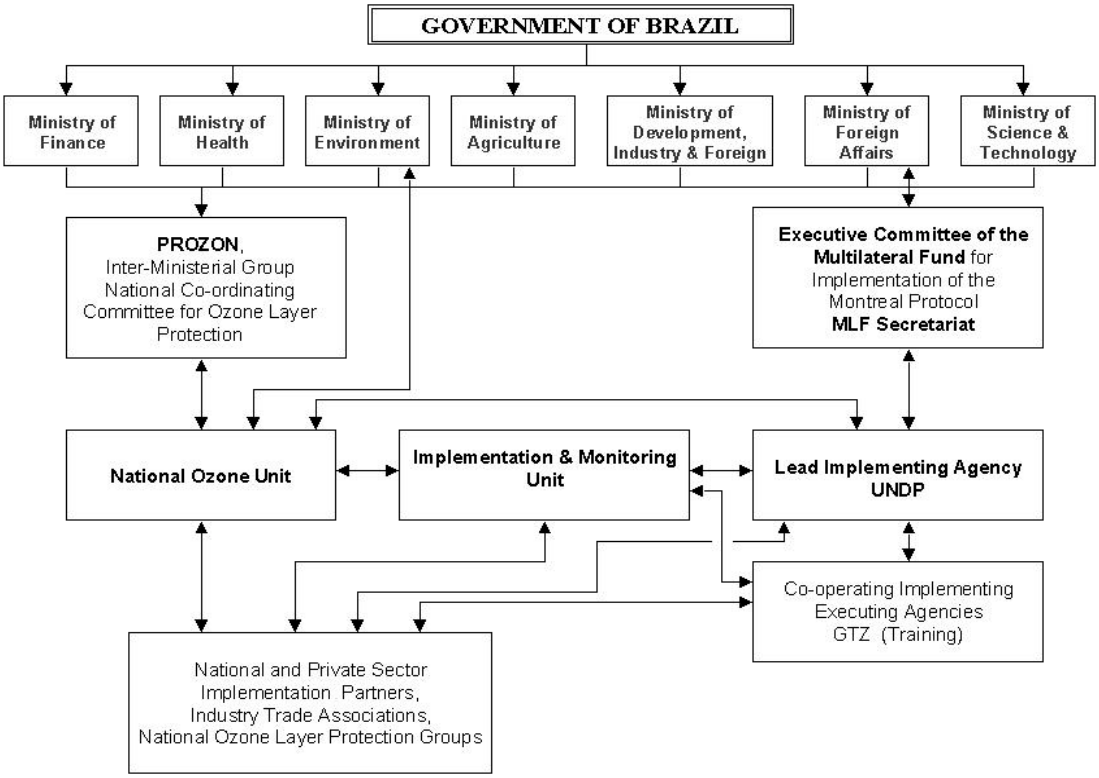
With this second funding tranche, Brazil will be able to continue enterprise level and sectoral CFC phase-out activities, conduct technical assistance activities, and undertake policy, public relations, and other actions as judged necessary to maintain the reductions in CFC consumption already achieved, and to ensure that the performance targets specified in the "Agreement" related to the second tranche of funding of US$ 6.42 million are achieved.

As will be seen in the report, a number of events contributed to delays in implementation of the National CFC Phase-out Plan during 2002 - 2003, although they did not prevent Brazil achieving compliance with the performance targets in the "Agreement". Of particular note is the fact that while the Plan was approved at the 37th Meeting of the Executive Committee of the Multilateral Fund in July 2002, the Brazilian Government only signed the Project Document in March 2003. This delay can be explained by a number of contributory factors, including the normal uncertainties created by the fact that Presidential elections were scheduled for November 2002, the resulting "stand still" situation during the period that a

"Transitional Government" was in place, the dissolution in December 2002 of PROZON, the inter-ministerial committee established by Presidential Decree in 1995 to coordinate all Brazilian Government activities related to Ozone Layer Protection, the formation of a new Government in January 2003, the reconstitution of PROZON in March 2003, and re-organisation of the NOU in July 2003.

Nevertheless, through close collaboration and cooperation between UNDP and the respective Brazilian Government counterparts during this time of change and reorganisation, the following organisational structure was put in place for implementation of the Brazil National CFC Phase-out Plan.

ORGANISATIONAL RESPONSIBILITIES FOR IMPLEMENTATION OF THE BRAZIL NATIONAL CFC PHASE-OUT PLAN



Several of the players within this organisational structure have had limited time to adapt to the challenges of their new roles and responsibilities, and to contribute fully to progressing implementation the Plan. However, UNDP is confident that with continuing periodic missions of UNDP technical experts and programme management staff, all of the players will soon be fully up to speed and this organisational structure will provide an excellent mechanism for maintaining the momentum already achieved in the reduction of CFC consumption, and progressing implementation of the Brazil National CFC Phase-out Plan so that its objectives are achieved in full.

Section 1.

ACHIEVEMENTS VERSUS PERFORMANCE INDICATORS RELATED TO THE FIRST PHASE IMPLEMENTATION WORK PLAN (2002 – 2003)

1. Maximum Allowable CFC Consumption, Funding Tranches, & Performance Indicators

The relevant part of the "Agreement" between the Executive Committee and the Government of Brazil (UNEP/OzL.Pro/ExCom/37/71, Annex IV - AGREEMENT FOR THE TOTAL PHASE-OUT OF ANNEX A GROUP I SUBSTANCES (CFCs) IN BRAZIL) dealing with the funding instalments, and the related maximum allowable CFC consumption covered by the First Phase Implementation Work Plan, and the second tranche of funding approved in principle for payment in 2003 for implementation activities in 2004 are as summarised in the following Table 1.

Table 1: National Control Targets for Annex A Group 1 CFC Consumption in ODP tonnes

	2000	**2001**	**2002**	**2003**	**2004**
Max allowable total consumption of Annex A Group I substances (ODP tonnes)	9,276	(9,276)	8,280	6,967	5,020
Total annual reduction (ODP tonnes)	-	-	996	1,313	1,947
Reduction from ongoing projects	-	-	745	313	1,210
New reduction under plan	-	-	251	1,000	737
Total agreed funding (US$ million)	-	-	9.5		6.42
Agency support costs (US$ million)	-	-	0.8353		0.563

Under the aforementioned "Agreement", Brazil must eliminate its total consumption of CFCs in accordance with specified annual CFC consumption targets. These total annual CFC consumption targets specified in the Agreement must be met by reductions in CFC consumption through the completion of ongoing approved projects and the phase-out of the associated CFC consumption, according to the implementation schedules approved for each project and subject to established Fund rules and procedures, and new activities under the National CFC Phase-out Plan.

The second tranche of funding specified in the "Agreement" as payable in 2003 for the 2004 Implementation Work Plan is US$ 6.42 million. This payment is subject to approval of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol at the last meeting of the Executive Committee in 2003, and it is contingent on meeting the following specific performance targets:

- Achieving a total level of consumption of Annex A Group I CFCs in the year 2002 that is equal to, or below, the maximum permitted level of 8,280 ODP tonnes specified in the "Agreement", with the

reported actual consumption of Annex A Group I CFCs in 2002 accompanied by an independent 2002 CFC consumption verification report.

- Achieving at least one third (438 ODP tonnes) of the 1,313 ODP tonnes reduction in consumption required between the maximum permitted consumption of 8,280 ODP tonnes in 2002, and the 6,967 ODP tonnes in 2003.

- Completion of the 2002 implementation work plan activities, and the 2003 work plan activities planned for completion before the 2003 reporting date (October 2003).

The "Agreement" also requires the Government of Brazil to ensure accurate monitoring of the phase-out, and to provide regular reports, as required by its obligations under the Montreal Protocol and this "Agreement", and that consumption figures provided must be, as a minimum, consistent with Brazil's compliance with the Montreal Protocol regarding Annex A Group I CFCs.

Compliance with the Performance Target of a Maximum Permitted Consumption of 8,280 ODP tonnes in 2002 and Performance Target of achieving at least one third (438 ODP tonnes) of the 1,313 ODP tonnes Reduction in Consumption required in 2003:

The maximum permitted total CFC consumption in 2002 and 2003 as specified in the "Agreement", together with the baseline consumption in 2000, and the actual consumption in 2001 and 2002, the estimated consumption in 2003, and the consumption levels related to compliance with the Montreal Protocol, are as indicated in the following table:

Maximum Permitted Annual Consumption of Annex A, Group I, CFCs under the "Agreement" for the National CFC Phase-out Plan (ODP Tonnes)			
2000	**2001**	**2002**	**2003**
N/A	**N/A**	**8,280**	**6,967**
Actual Annual Consumption Annex A, Group I, CFCs (ODP Tonnes)			
2000	**2001**	**2002**	**2003**
9,276	**6,231**	**3,001**	**2,579 ***
Maximum Permitted Annual Consumption Annex A, Group I, CFCs under the Montreal Protocol (ODP Tonnes)			
2000	**2001**	**2002**	**2003**
10,521	**10,521**	**10,521**	**10,521**

**** Estimate based on extrapolation of the SECEX Import & Export data for the nine months January – September 2003 inclusive***

The Performance Targets related to the Maximum Permitted Consumption of 8,280 ODP tonnes in 2002 and achieving at least one third (438 ODP tonnes) of the 1,313 ODP tonnes Reduction in Consumption required in 2003 have therefore been met, and the consumption is also in compliance with Brazil's obligations under the Montreal Protocol regarding Annex A Group I CFCs.

Compliance with the Performance Target of achieving at least one third (438 ODP tonnes) of the 1,313 ODP tonnes reduction in consumption required between the maximum permitted consumption of 8,280 ODP tonnes in 2002, and the 6,967 ODP tonnes in 2003:

The achieved reductions in annual CFC consumption in 2001 and 2002, and in the period January through September 2003, through the completion of ongoing approved projects and the phase-out of the associated CFC consumption, are recorded in the following table:

"Reductions from Ongoing Projects" - (ODP tonnes) (Table 1 - "Agreement for the Total Phase-out of Annex A Group I Substances (CFCs) in Brazil)					
2001	**2002**	**2003**	**2004**	**2005**	**Total**
745	**313**	**1,210**	**1,207**	**0**	**3,475**
Achieved Phase-out of Annex A CFC Consumption by Ongoing Projects (ODP tonnes)					
2001	**2002**	**2003 ***	**2004**	**2005**	**Total**
745	**1,184**	**574**			**2,503**
Remaining Annex A CFC Consumption to be phased-out by Ongoing Projects (ODP tonnes)					
2001	**2002**	**2003 ***	**2004**	**2005**	**Total**
-	**-**	**175**	**728**	**69**	**972**

**** January – September 2003 inclusive***

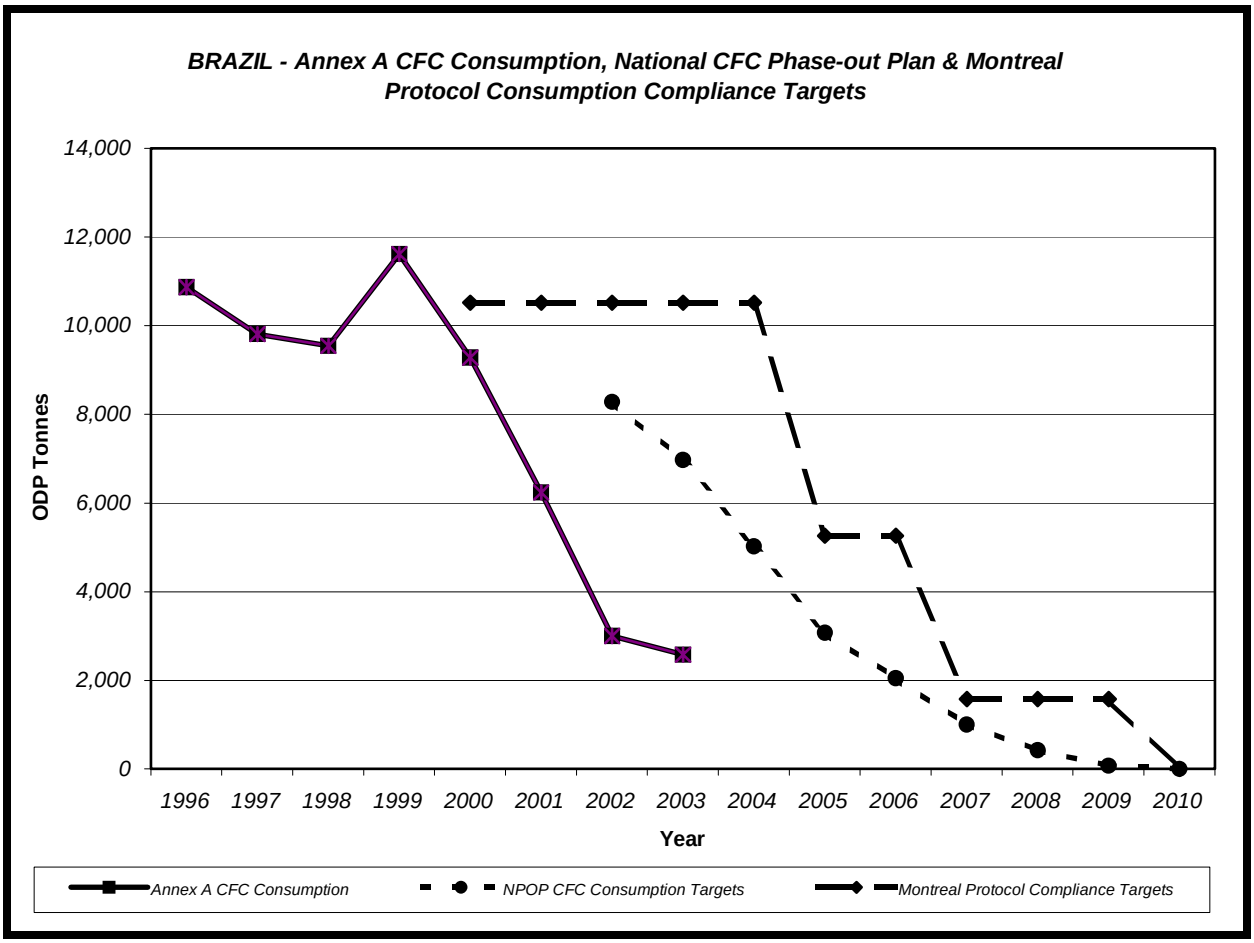
Contributing significantly to the reductions in CFC consumption achieved in 2002, and 2003 are the reductions in CFC consumption resulting from the earlier than planned completion of ongoing approved projects and the phase-out of the associated CFC consumption, ahead of the implementation schedules approved for each project.

The achieved reduction of 1,758 ODP tonnes from completion of ongoing projects during January 2002 – October 2003 already exceeds the combined two year 2002 – 2003 total of 1,523 ODP tonnes reduction required in the "Agreement" related to the National CFC Phase-out Plan. This was the result of concentrated efforts by UNDP to speed up implementation and completion of ongoing projects wherever possible in order to ensure that CFC consumption targets in the "Agreement" would be met following recognition that the delays in the Governments signature of the Project Document could potentially jeopardise such compliance. UNDP's efforts in this respect continued as the extent of the delay in implementation of certain projects within the National Plan resulting from the need for changes in key legislation became apparent. Further reductions in CFC consumption are anticipated by the completion of ongoing projects during October – December 2003.

The Performance Target related to achieving at least one third (438 ODP tonnes) of the 1,313 ODP tonnes reduction in consumption required between the maximum permitted consumption of 8,280 ODP tonnes in 2002, and the 6,967 ODP tonnes in 2003 has therefore been met.

The following Graph 1. provides a graphical comparison of the Annex A Group I CFC consumption in Brazil since 1996, and the achieved reductions in CFC consumption versus the CFC consumption compliance targets in both the National CFC Phase-out Plan, and the Montreal Protocol. The CFC consumption data for 2003 is an estimate based on the SECEX official data on CFC imports and exports for the eight months January – August 2003, extrapolated to 12 months.

Graph 1: Annex A CFC Consumption versus National Plan & Montreal Protocol Compliance Targets



<u>Completion of the 2002 implementation work plan activities, and the 2003 work plan activities planned for completion before the 2003 reporting date (October 2003), and reductions in annual CFC consumption targets specified in the Agreement through new activities under the National CFC Phase-out Plan:</u>

Reductions in CFC consumption in 2002 and 2003, other than as the result of completion of ongoing approved projects, were also achieved as a result of the following:

- CFC phase-out activities in the foam sector. While additional enterprises were identified as eligible for assistance in early 2002, they had to await approval of the National CFC Phase-out Plan. After receiving advice from the Government in August 2002 that they would receive assistance under the Plan, and concerned about CFC availability, a significant number of these enterprises decided to accelerate the conversion to non-CFC technology and receive the assistance retroactively.
- Enforcement of the CFC Import Quota System enshrined in CONAMA Resolution 267.

- The publicity surrounding approval of the Brazil National CFC Phase-out Plan. Approval of the Plan and its objectives were widely publicised resulting in much greater recognition at the industry level of the Governments intention to accelerate reductions in CFC consumption, and to phase-out CFC consumption, faster than its obligations under the Montreal Protocol.

Specific activities in the First Phase Implementation Plan covering the period August 2002 – December 2003 in the refrigeration and air-conditioning service sub-sectors, were delayed because of problems with existing legislation related to refrigerant recovery, recycling, and reclaim. With the resolution of these problems, implementation of activities in the refrigeration and air-conditioning service sub-sectors are now being rapidly progressed. Please refer to Section 3 of this report for details.

An independent 2002 CFC consumption verification has been performed by an independent auditing group and the report is with UNDP and is available upon request. The findings are summarized below:

- there are differences in reported data using 2 sources of information (Siscomex or Ibama) but for CFC 11 and 12 since for the other CFCs the Auditor found no inconsistencies. Data collected and verified from the Secretariat of External Trade (Secex /Siscomex) indicated that the consumption reported to the Ozone Secretariat(using both sources) was higher by about 300 ODP tonnes. Using the data verified from SISCOMEX, consumption reported would be **2,668.62** ODP tonnes of Annex A Group I substances. Despite the differences pointed in the reporting methodology used and the cross checking process with IBAMA register, Brazil has complied with the reduction targets in the Agreement and even surpassed them. In addition, by looking at 9 months of available data at Siscomex in 2003, Brazil will also meet the 2003 targets in the Agreement.
- The Auditor recommends that Conama Resolution 267 is revised as Article 3 is ambiguous and confuses reporting. In depth analyses of legislation in relation to the 2 methodologies (Ibama and Siscomex) is required as to better advise on future actions needed as far as selection.
- In relation to reduction from the ongoing projects, the auditor confirms that 1,184 ODP tonnes were eliminated in 2002. He points out that the projects were indeed finalized but the total figure of ODP tonnes reduced were not actual 2002 enterprise consumption and therefore the resulting reduction reflects the ODP impact at the time the project was approved, as this is the way the reduction was reflected in the Agreement and in the MLF inventory of projects.

Section 2.

SECOND PHASE IMPLEMENTATION WORK PLAN - 2004

1. Data

Country	***BRAZIL***
Year of Plan	***2004***
No. of Years Completed	***1.2 (14 months)***
No. of Years remaining under the Plan	***6***
Target CFC Consumption of the Preceding Year	***6,967***
Target CFC Consumption of the Year of the Plan	***5,020***
Level of Funding Requested	***US$ 6,420,000***
Lead Implementing Agency	***UNDP***
Cooperating Executing Agency	***GTZ***

2. Targets

Indicators		***ODP tonnes***		
		Preceding Year	***Year of Plan***	***Reduction***
Supply of CFCs	Import	6,967	5,020	1,947
	Production *	N/A	N/A	N/A
	Total (1)	**6,967**	**5,020**	**1,947**
Demand of CFCs	Manufacturing	2,475	1,901	574
	Servicing	4,492	3,119	1,373
	Stockpiling	-	-	-
	Total (2)	**6,967**	**5,020**	**1,947**

* For CFC-Producing Countries.

3. Industry Action

Sector	***ODP tonnes***					
	Consumption Preceding Year (1)	***Consumption Year of Plan (2)***	***Reduction within Year of Plan (1) – (2)***	***Number of Projects Completed***	***Number of Servicing Related Activities***	***CFC Phase-out ODP tonnes***
Manufacturing						
Aerosol	74	74	0	0		0
Foam	2,165	1,591	574	13		574
Refrigeration	207	207	0	0		0
Solvents	29	29	0	0		0
Other	0	0	0	0		0
Total	**2,475**	**1,901**	**574**	**13**		**574**
Servicing						
Refrigeration	4,492	3,119	1,373	N/A	5	1,373
Total	**4,492**	**3,119**	**1,373**	**N/A**	**5**	**1,373**
Grand Total	**6,967**	**5,020**	**1,947**	**N/A**	**5**	**1,946**

4. Technical Assistance

DOMESTIC & COMMERCIAL REFRIGERATION SERVICE SECTOR

Proposed Activity:	*Continue and expand training, in CFC management and conservation, including recovery, recycling, recharge, replacement refrigerants, retrofit refrigerants, and storage.*
Objective:	*The activity is related to separate investment projects that will provide appropriate equipment to selected trained technicians that will enable them to recover CFC-12 and replace it with non-CFC refrigerants in the course of their work. The recovered CFC-12 will be reprocessed at regional CFC-12 Reclaim Centres. The overall objective is to promote the need for, and provide the training to enable, CFC-12 refrigerant to be recovered and reclaimed and thus reduce CFC-12 consumption in the sector.*
Target Group:	*Refrigeration service mechanics and technicians, engaged in the installation and maintenance of domestic and commercial refrigeration systems and equipment throughout Brazil.*
Impact:	*No direct ODP impact.*

CUSTOMS & EXCISE AUTHORITIES

Proposed Activity:	*Training in checking, recognition, testing and monitoring of CFC imports. Already trained Customs Officer trainers from 24 states and 49 port and airport authorities will conduct the training.*
Objective:	*The monitoring and control of imports of bulk CFCs, mixtures of CFCs with other chemical substances, and products and equipment containing, or designed to contain or use CFCs. This is crucial to Brazil achieving compliance with both the maximum permitted levels of CFC consumption specified in the "Agreement" related to the National CFC Phase-out Plan, and its Montreal Protocol obligations on CFC consumption.*
Target Group:	*Customs Officers throughout Brazil.*
Impact:	*No direct ODP impact.*

GENERAL

Proposed Activity:	*Technical support from International and National Consultants as required to progress all project implementation activities in the Second Phase Implementation Work Plan in 2004.*
Objective:	*To ensure the planned activities in the 2004 Work Plan are completed and the relevant performance targets are met in full.*
Target Group:	NOU and the I*mplementation & Monitoring Unit.*
Impact:	*No direct ODP impact.*

5. Government Action

Policy/Activity Planned	*Schedule of Implementation*
(a) Policy Decisions & Regulatory Actions:	
To review and amend all the existing legislation as defined in CONAMA Resolution 267 related to the imports, and uses, of Annex A Group I CFCs, as pure substance, and in mixtures (including CFC-11/Polyol pre-mixes), to be consistent with the NPOP, and to guarantee compliance with the maximum permitted consumption levels as defined in the Agreement with the MLF ExCom related to the NPOP.	***Implement in 2004***
To include in the review and amendment of all the existing legislation as defined in CONAMA Resolution 267 related to the imports of Annex A Group I CFCs, CFC-11 import quotas to guarantee a supply of CFC-11 deemed adequate for the service of CFC-11 based centrifugal chillers in the central air-conditioning and industrial refrigeration sectors, up to and including the year 2008.	***Implement in 2004***
To include in the review and amendment of all the existing legislation as defined in CONAMA Resolution 267 related to the use of Annex A Group I CFCs, a ban on the use of CFC-11 and CFC-12 as foam blowing agents in all foam manufacturing activities with effect from 01 January 2006.	**Prepare in 2004, Implementation effective 01 January 2006**
To include in the review and amendment of all the existing legislation as defined in CONAMA Resolution 267 related to the imports of Annex A Group I CFCs, revision of the CFC-12 import quota allocation system so as to safeguard the availability of CFC-12 according to the permitted import levels, to provide adequate distribution of the quotas between major importers, and to permit transfers of unused quotas from one authorised importer to another on a quarterly basis.	***Implement in 2004***
To include in the review and amendment of all the existing legislation as defined in CONAMA Resolution 267 related to the imports of Annex A Group I CFCs, a requirement to attach a condition to all import licenses for CFC-11 issued from 01 January 2004 to 31 December 2005, prohibiting the sales of CFC-11 for the use as a blowing agent to any enterprise in the foam sector that does not have an ongoing CFC phase-out project approved by the Government.	***Implement in 2004***
To include in the review and amendment of all the existing legislation as defined in CONAMA Resolution 267 related to the imports of Annex A Group I CFCs, a ban on the import of all Annex A Group I CFCs with effect from 01 January 2009 (earlier dates may be determined for specific CFCs), except for any quantities needed for uses defined as "essential" in the CONAMA 267 Resolution.	**Prepare in 2004, Implementation effective according to dates set for individual CFCs, but no later than 01 January 2009**
To review, and to amend as necessary, all Federal and State Transport legislation to permit the unhindered transportation of recovered, recycled, and reclaimed CFCs between enterprises and regional CFC recycling/reclaim centres, and vice versa, in and between all States.	**Review, Amend, and Implement as soon as possible**
To introduce legislation requiring all Refrigerant Reclaim Centres to be approved by the relevant Government Authority. To be approved, any CFC-12 Refrigerant Reclaim Centre must comply with the same conditions as those imposed on Reclaim Centres established and operated with MLF assistance under the National Plan.	***Implement in 2004***

Policy/Activity Planned	***Schedule of Implementation***
(b) Public Awareness Actions:	
Based on the experience gained in 2002 – 2003, develop, improve, and implement, a more focussed Public Awareness Campaign to inform stakeholders about the National CFC Phase-out Plan. This should emphasise the progressive reduction in the availability of CFCs prior to phase-out of all non-essential uses of CFCs effective from 01 January 2009, inform the CFC industry consuming sectors of the availability of MLF funds to support CFC phase-out, explain the need for Recovery and Reclaim of CFC refrigerants, and encourage conversion to non-CFC refrigerants during the service and repair of refrigeration and air-conditioning systems.	***Implement in 2004***
Supporting publicity should be devised and used in conjunction with the start of the interrelated Technician Training, CFC-12 Recovery, and CFC-12 Reclaim Projects, and be repeated at appropriate intervals thereafter, in order to maximise the potential results to be gained from successful implementation of these projects.	***Implement in 2004***
MLF funded CFC-12 Refrigerant Reclaim Centres, and any others approved and meeting the same conditions, should be officially "Recognised" by the Government in order to support the use of "Reclaimed CFC-12". This "Recognition" should be withdrawn in the event of non-compliance with the operating conditions.	***Implement in 2004***

Policy/Activity Planned	***Schedule of Implementation***
(c) Other Actions:	
Develop, publish, and promote Guidelines for the safe filling, handling, labelling, and transportation of containers for "Recovered Non-flammable Liquefied Gas Refrigerants" by Service Technicians in the Refrigeration and Air-conditioning Service Sector.	***Implement in 2004***
Review, agree, and complete the database requirements needed on technicians that participate in the Training Project in order to select those that will receive CFC-12 Refrigerant recovery equipment, and to facilitate a possible future "Certification" scheme upon completion of the Training Project.	***Implement in 2004***
Monitor and enforce the existing prohibition on the use of CFCs in all new, domestic or imported, equipment, products, installations and systems as defined in CONAMA Resolution 267.	***Implement in 2004***
Identify all existing "Essential Uses" of CFCs as defined in Article 4 of CONAMA Resolution 267 by application, the CFC involved, and the level of annual consumption of each CFC.	***Implement in 2004***
Establish under the Ministry of Environment an independent monitoring and enforcement unit relating to CFC consumption.	***Implement in 2004***
Formalise a system for monitoring the import and export of CFCs, HCFCs, HFCs, and mixtures thereof by access to the SECEX database on a bimonthly basis. Review the data and clarify any questionable data with IBAMA.	***Implement in 2004***

6. Budget for the Second Phase Implementation Work Plan in 2004

Activity	*Budget (US$)*
Implementation & Monitoring Unit: Implementation and Monitoring of all activities in the 2004 Work Plan, including Government actions.	***US$ 400,000***
Conversion Project Activities to eliminate CFC Consumption in the Foam Manufacturing Sector: Progress and complete the implementation of conversion projects at 71 enterprises manufacturing rigid PU foam and integral skin/flexible molded PU foam that were prepared and approved during the 2002 – 2003 Implementation Work Plan, and for which equipment procurement is in progress. Complete project preparation and approval activities, initiate equipment procurement, and progress and complete implementation of conversion projects at 33 remaining eligible enterprises in the foam sector manufacturing flexible PU foam.	***US$ 1,000,000***
Conversion Project Activities to eliminate CFC Consumption in the Commercial Refrigeration Manufacturing Sector: Continue the activities initiated during the 2002 – 2003 Implementation Work Plan, by completing the preparation and approval of projects for eligible enterprises, and progressing equipment procurement and project implementation as fast as possible at all the enterprises.	***US$ 300,000***
Technician Training Project Activities in the Domestic & Commercial Refrigeration Service Sector: Continue activities and expand the Technician Training Project to train the total number of technicians planned to be trained in 2003 and 2004 in the South East Region of Brazil, during 2004. Implementation of the project to be co-ordinated with the implementation of the CFC-12 Recovery and CFC-12 Reclaim Centre Projects.	***US$ 1,000,000***
CFC-12 Recovery Project Activities in the Domestic & Commercial Refrigeration Service Sector: Distribute CFC-12 refrigerant recovery equipment purchased with funding in the 2003 – 2003 Implementation Work Plan to selected service technicians in the South East Region of Brazil that successfully complete the Technician Training Project, and procure additional equipment for supply to more selected technicians during 2004.	***US$ 1,600,000***
Regional CFC-12 Reclaim Centre Project Activities: Progress the equipment procurement activities initiated in 2003, finalise civil works, equipment installation, and commissioning of the first CFC-12 Reclaim Centre in Sao Paulo. Progress activities related to the establishment of a second Reclaim Centre in Rio de Janeiro. Select enterprises to operate two additional CFC-12 Reclaim Centres in the South East Region of Brazil, and procure the equipment and establish such Reclaim Centres during 2004.	***US$ 700,000***
CFC Recovery & Recycle Project Activities in the Industrial Refrigeration & Central Air-Conditioning (Centrifugal Chillers) Service Sector: Accelerate Recovery & Recycle Project activities from the 2002 – 2003 Implementation Work Plan and expand the project to include the procurement of as many sets of equipment as the total funding will permit for the recovery and recycle of CFC refrigerant during the service and repair of CFC-based centrifugal chillers, for supply to eligible enterprises that specialize in these activities, that can demonstrate capacity to recover and recycle CFCs and are willing to participate in the project.	***US$ 213,600***
CFC Recovery & Recycle Project Activities in the MAC Service Sector: Accelerate the ongoing Sao Paulo MAC Recovery & Recycle Pilot Project activities from the 2002 – 2003 Implementation Work Plan and expand the Pilot Project to include the procurement of as many sets of equipment as the total funding will permit for supply to eligible MAC service enterprises that can demonstrate capacity to recover and recycle CFC-12 and are willing to participate in the project.	***US$ 1,206,400***
Total	***US$ 6,420,000***

7. Administrative Fees for Activities in 2004

Agency	***Amount (US$)***
UNDP – Lead Implementing Agency	***US$ 473,000***
GTZ – Cooperating Executing Agency (Training)	***US$ 90,000***
Total	***US$ 563,000***

Section 3.

REPORT ON THE FIRST PHASE IMPLEMENTATION WORK PLAN (2003 – 2003)

1. Introduction & Time Period Involved

A total of US$ 26.7 million in MLF funding was approved in principle for implementation of a substantially revised Brazil National CFC Phase-out Plan at the 37th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol in July 2002. The revisions were reflected in the First Phase Implementation Work Plan submitted to the Secretariat.

The agreed first tranche of funding was US$ 9.5 million, and this was for the First Phase Implementation Work Plan covering the period August 2002 through December 2003.

This report covers the progress made in implementation of the first phase work plan up to mid-October 2003.

2. Important Background Information Related to Implementation of the Plan

It was Brazil's duty to assume overall responsibility for the implementation and management of both the approved Brazil National CFC Phase-out Plan, and the related "Agreement", in order to ensure the achievement of all goals therein. This was recognised in the Plan and an important first step in implementation, for which MLF funding was approved, was the establishment of an Implementation and Monitoring Unit (I&M Unit). The role of this I&M Unit being to assist the Brazilian Government in carrying out these responsibilities, initially with particular focus on the achievement of the targeted reductions in Annex A, Group I, CFCs consumption in 2002 and 2003, and other performance targets, as specified in the "Agreement".

When the National CFC Phase-out Plan was submitted for ExCom approval in July 2002 it made clear that enforcement of the import quota regulations in CONAMA Resolution 267 would result in very steep reductions in CFC consumption commencing in 2001. The activities in the Plan were therefore created to minimize the economic impact on Brazilian society resulting from this rapid reduction in the availability of CFCs.

It is important to note that a number of events contributed to delays in implementation of the National CFC Phase-out Plan during 2002 - 2003, although they have not impacted on the ability of the country to comply with the Agreement during this first phase. These events were completely outside the control of the I&M Unit, UNDP as the lead Implementing Agency, and GTZ as the Co-operating Executing Agency for the Service Technician and Customs Officer Training Projects that were bilaterally funded by Germany.

When UNDP became aware of the first delay in implementation of the National CFC Phase-out Plan it recognised the potential for non-compliance with the performance targets in the "Agreement" related to CFC consumption in 2002 and 2003. As a result, UNDP immediately took steps to speed up the implementation and completion of ongoing projects wherever possible in order to ensure that these CFC consumption performance targets would be met. As further unavoidable delays became apparent, UNDP maintained a concentrated effort to accelerate the completion of ongoing projects, and these activities continue as at the time of preparation of this report.

While every other effort possible was made to minimise the impact of these delays, any review of achievements in implementation of the First Phase Work Plan needs to take this background delay scenario into account.

UNDP feels that the lessons learned during this period should be shared, and so the following is provided as a summary of the events that happened following approval of the National CFC Phase-out Plan. These include the difficulties encountered, and finally the results achieved by way of the momentum gained in both implementation and awareness of the National Plan by the new Government, which assumed its leadership role in 2003. It is important to note the following events:

- While the Plan was approved at the 37th Meeting of the Executive Committee of the Multilateral Fund in July 2002, the Brazilian Government only signed the Project Document in March 2003. At the Government level, the factors contributing to this, and other delays, included the uncertainties due to Presidential elections which took place in November 2002, the effective "stand still" situation during the period that a Transitional Government was in place, the dissolution of PROZON, an inter-ministerial committee established by Presidential Decree in 1995 to coordinate all Brazilian Government activities related to Ozone Layer Protection (December 2002), the formation of a new Government (January 2003), the reconstitution of PROZON in March 2003, and re-organisation of the NOU (July 2003).

- As soon as the project was approved, and in view of the anticipated circumstances related to the upcoming Presidential election, and as a result the appointment of new Ministers and other First- and Second-Level Ministerial appointees including the new Secretary of Environment and Director of the NOU, UNDP consulted Ministry of Environment officials and the Ministry of Foreign Affairs Environment Division on the subject of signature of the Project Document. Assurance was received that the Government was committed to meet its obligations and agreed targets in the National CFC Phase-out Plan, that the delay in project signature was ONLY due to the bureaucratic difficulties caused by this transition in Government, and that once the new Government was in place the Project Document would be signed. With this assurance, in October 2002 UNDP agreed to advance funds for the establishment of the Implementation & Monitoring Unit. Between October 2002 and February 2003, the I&M Unit was comprised of a Technical Co-ordinator, an Administrative Manager, and a Technical Assistant. The I&M Unit staff were assisted as necessary by UNDP National & International Consultants. Subsequently, between March and June 2003, two National Technical Advisors were added to the I&M Unit staff.

  Space constraints meant that the I&M Unit could not be located within the offices of the Brazilian Ministry of Environment. The Unit was then established as a stand-alone entity, but located in reasonably close proximity to both the offices of UNDP Brazil and the Ministry of Environment in order to facilitate the required operational assistance to progress implementation of the Plan.

- As soon as the I&M Unit was established, UNDP International Consultants provided assistance in the preparation of "Implementation Plans" covering the steps to be taken to progress implementation of the project activities included in the First Phase Implementation Work Plan.

  This work also covered the preparation of specifications for equipment for projects under the National Plan in the foam manufacturing sector, and the refrigeration and air-conditioning service sectors. This included the CFC-12 Refrigerant Recovery Project that is one of three closely integrated projects within the Plan, the others being a Technician Training Project, and a CFC-12 Reclaim Project, that aim to achieve reductions in CFC-12 consumption in the Domestic & Commercial Refrigeration Service Sector, the largest CFC consuming sector in Brazil in 2000 with an estimated consumption of 4,172 ODP tonnes.

This work resulted in the discovery of an existing piece of Brazilian legislation that did not allow on-site recovery and recycling of controlled substances such as CFCs during the service of refrigeration and air-conditioning equipment and systems. In addition, it also prevented the purchase of cylinders to the US DOT specifications that are specifically designed for the recovery of CFCs, and which are the "norm" for cylinders in all MLF refrigerant recovery and recycling projects, as under Brazilian law the use of such cylinders would be illegal.

The problematic legislation was enshrined in the text of Article 7 of CONAMA Resolution No. 267 and the urgent need to change this legislation was immediately advised to the NOU. In November 2002 a proposed amendment to the text of Article 7 of CONAMA Resolution No. 267 was prepared by UNDP and the I&M Unit for consideration by a plenary meeting of CONAMA (The National Environment Council) in early December 2002. The CONAMA meeting simply referred the matter for consideration by a Technical Working Group that was to report back to the CONAMA plenary group.

While the procurement of the equipment required for the first phase of the CFC-12 Refrigerant Recovery Project was progressed to the point of being ready to issue the purchase order to the selected supplier, and the specifications for the equipment required to establish and operate the first CFC-12 Refrigerant Reclaim Centre in Sao Paulo were prepared and were ready for issue to seek bids, on instruction from the Ministry of Environment, neither of these activities could be progressed without amendment to Article 7 of CONAMA Resolution 267.

Implementation of the most important part of the First Phase Implementation Plan was then effectively "frozen" by this instruction.

While UNDP explored all possible avenues to progress these equipment procurement activities, including seeking a Presidential Decree to overrule the existing text of Article 7 of CONAMA Resolution 267, the Government remained firm that the only way forward was revision of Article 7 through the due processes of CONAMA, the National Environmental Council body which has representation from all segments of Brazilian society.

In view of this, another version of the proposed amendment of the text of Article 7 was prepared by the I&M Unit and UNDP in June 2003. This proposed amendment was accepted unanimously by the CONAMA Technical Chamber in July 2003, and subsequently accepted by the International Affairs Committee of CONAMA on August 2003. However, notwithstanding this progress, the Brazilian Government maintained its position that no equipment procurement activities could be progressed that involved anything that conflicted legally with the existing text of Article 7 of CONAMA Resolution 267.

There were frequent missions by UNDP's International Consultants during 2002 and 2003 to assist in progressing the implementation of the project activities in the First Phase Work Plan as quickly as possible. In addition, three policy advisory missions were undertaken by the Chief MPU, in each of which meetings were held at the highest level with officials as appropriate from the old, the transitional, and new Government, in order to keep them informed on the activities under the Plan, to explain the urgency of the need for revision of the legislation delaying equipment procurement, and to request their full support to restore the National Ozone Unit to a fully operational and empowered status as quickly as possible.

A massive effort was undertaken to promote awareness of the National CFC Phase-out Plan and its objectives by taking advantage of the International Ozone Day on 16 September 2003, and several events for the related "Ozone Week" in Brazil were organised in cooperation with partners at Federal and State levels, and with Industry Associations and private sector enterprises.

The Minister of Environment herself officially opened the "Ozone Week" event in Brasilia, with several high-level government officials from other Ministers in attendance. This event gained prime time coverage by National television. The Secretary of Environment opened the "Ozone Week" event in Sao Paulo, and this attracted over 300 participants and also received important media coverage. The Chief MPU was invited to address the "Ozone Week" plenary sessions both in Brasilia and in Sao Paulo. A commemorative stamp was launched on the Ozone Day as well as a radio campaign in partnership with the Ministry of Health. The President of the National Refrigeration and Air Conditioning Association also addressed the plenary during the Sao Paulo event where he reiterated assurances that the Association was fully committed to assisting the Government to meet its agreed targets on CFC consumption.

On 05 September 2003 the Legal Committee of CONAMA accepted the proposed amendment of the text of Article 7 of CONAMA Resolution 267. Almost a year after the problem was identified, with the momentum gained by the events and the related media coverage, and with the assistance of the Implementation and Monitoring Unit and UNDP, on 25 September 2003 the Government took the lead in the CONAMA Council deliberations on the proposed amendment of the text of Article 7 of CONAMA Resolution 267. As a result, the CONAMA Council meeting formally approved the proposed amendments.

Only following this formal approval of an amended text of Article 7 of CONAMA Resolution 267 that now made such actions legal, could the equipment procurement activities related to the CFC-12 Recovery and Reclaim Centre Projects be reactivated. Such actions have been initiated but implementation of these two key projects in the Plan, coupled with the related Refrigeration Service Technician Training Project, have been delayed. The protracted revision of Article 7 of CONAMA Resolution also delayed progress in implementation of other activities in the First Phase Implementation Work Plan. There was a direct impact in the case of other projects involving on-site recovery and recycling of CFC refrigerants (in MAC and Chillers), and an indirect impact in the case of projects in the foam and commercial refrigeration manufacturing sectors as a result of the drain on the limited resources of the I&M Unit created by the need to constantly address the issue of revision of CONAMA Resolution 267.

- In parallel with the assistance provided by UNDP and its Consultants to progress implementation of the Plan, in October 2002 GTZ also initiated actions with the NOU and the I&M Unit to progress implementation of the Refrigeration Service Technician, and Customs Officer, Training Projects. GTZ correctly focused on the former, because as mentioned above, the Refrigeration Service Technician Training Project, together with CFC-12 Recovery and CFC-12 Reclaim Projects, together were to address the largest remaining CFC consumption sector in Brazil.

  There were delays in progressing the formal agreement between the Governments of Germany and Brazil related to the bilateral assistance, but the agreement is now in its final stage of formal ratification by the Foreign Ministries of both countries.

  Nevertheless, GTZ made rapid progress in establishing the structure for implementation of the Refrigeration Service Technician Training Project using SENAI, (National Industry Training Service), and identification of, and preparation of, a database on technicians to be trained. However, while GTZ was ready to commence the Refrigeration Service Technician Training Project in 2003, it made no sense to start training technicians without being able to provide them with CFC-12 recovery equipment, or without reclaim centres to which recovered CFC-12 could be taken for reprocessing. The start of the Refrigeration Service Technician Training Project therefore will now commence when the CFC-12 recovery equipment arrives, arrangements having been made to store recovered CFC-12 until the commissioning of the CFC-12 reclaim centre in Sao Paulo.

- An important part of the implementation process is the preparation of "Legal Agreements" between the Brazilian Government and the beneficiary enterprises/individuals that will receive equipment related to the recovery, recycling, and reclaim of refrigerants during their work on the service and repair of refrigeration and air-conditioning systems, etc. While it is a legal requirement under Article 7 of CONAMA Resolution 267 to recover CFC refrigerants, it is clearly important that such beneficiary enterprises/individuals actually practice recovery, and that the other equipment involved in CFC refrigerant recycling and reclaim is properly used for the intended purpose. Draft "Agreements" covering the monitoring of use, redistribution of the equipment in the event that it is not being used, transfer of ownership, correct operation, responsibility for maintenance, etc., were also prepared by UNDP for the I&M Unit in October 2002. Such "Agreements" are awaiting clearance by the Ministry of Environment Legal Department. While presently this is not delaying implementation, these "Agreements" must be finalised and approved by the Ministry of Environment Legal Department by the time that equipment is delivered, so that distribution and commissioning of the equipment can be initiated.

The transfer of overall responsibility for the implementation and management of a National CFC Phase-out Plan, and the achievement of all goals therein, especially for a Plan of the magnitude of the Brazil Plan, represents a major change from previous practice, and a fairly lengthy "learning curve" at the Government level may be anticipated. This coupled with a change of Government at a key stage in the implementation process, followed by reorganisation and change of personnel at the NOU, obviously substantially prolonged that "learning curve". Changing legislation can be a lengthy process in any country, but it was learned that greater flexibility in the text allowing the Government to quickly adjust it as needed, identifying potential means of exemption, and exploring ways to minimise delays in the implementation process while the necessary changes in legislation are being addressed would all improve the overall implementation process. There was substantive progress related to the First Phase Implementation Work Plan and details of the progress made are presented in the following sections of this report, but it is important that they be considered in the light of the aforementioned difficulties and delays.

3. First Phase Implementation Work Plan – Planned Activities & Achievements

Taking into account the performance targets in CFC consumption that must be achieved, and in order to ensure that all conditions would be met for delivery of the funding tranche for 2004, it was critical that certain project activities be initiated in 2002 and 2003. The first tranche of MLF funding of US$ 9.5 million was therefore allocated to such individual project activities as illustrated in the following Table 2:

Table 2: Budget for First Phase Implementation Work Plan 2002 – 2003

Activity	2002 – 2003 Budget (US$)
Project Implementation & Monitoring Unit	860,000
PU Foam Manufacturing Sector - CFC Conversion Projects	3,200,000
Commercial Refrigeration Manufacturing Sector - CFC Conversion Projects	700,000
Domestic & Commercial Refrigeration Service Sector:	
• Service Technician Training Project *	1,498,800
• CFC-12 Recovery Project	1,500,000
• CFC-12 Reclaim Centre Project	700,000
MAC Service Sector - CFC-12 R&R Pilot Project	250,000
Industrial Refrigeration and Central Air-Conditioning Service Sector - CFC R&R Project	650,000
Customs Officer Training *	141,200
TOTAL	**9,500,000**

***** *Projects to be implemented by GTZ with bilateral funding by the German Government*

3.1 Project Implementation & Monitoring Unit:

Planned Activity: Establishment of a project Implementation and Monitoring Unit, identification and hire of Consultants, etc., to address the key activities in the First Phase Implementation Work Plan;

Achievements: With assistance from UNDP, the Implementation and Monitoring Unit was established in October 2002 even though the Brazilian Government had not signed the Project Document related to the National CFC Phase-out Plan (NPOP). UNDP consulted Ministry of Environment officials and the Ministry of Foreign Affairs Environment Division, and received assurance that the Government was committed to meet its obligations and agreed targets in the Plan and that the delay in project signature was ONLY due to the bureaucratic difficulties caused by Presidential elections, and that once new Government officials were nominated the project would be signed. With this assurance, UNDP agreed to advance funds for the establishment of the Implementation and Monitoring Unit, but not for equipment procurement, adjudging this to be an acceptable risk given the importance of achieving the performance targets in the "Agreement" between the Executive Committee of the Multilateral Fund, and the Brazilian Government. The Project Document was signed in March 2003.

Once the Unit was established, project implementation activities were initiated immediately with the assistance of UNDP International, and National, Consultants. Implementation Plans were prepared for each project activity being implemented with assistance from UNDP. These specified the sequence of actions to be followed to progress implementation of the different projects, and established target dates for completion of each activity. In addition to working directly with the UNDP Consultants, other activities involved may be summarised as enterprise data collection, enterprise data evaluation, enterprise

eligibility review, NPOP publicity, liaison with ABRIPUR (Foam Industry Trade Association), advertising and inviting enterprises consuming CFCs engaged in the manufacture of commercial refrigeration equipment, and the service of centrifugal chillers to contact the I&M Unit, advertising and inviting proposals from enterprises interested in the establishment of CFC-12 refrigerant reclaim centres in Sao Paulo, and Rio de Janeiro, recruiting National Consultants for specific activities, and liaison with the NOU as necessary, and particularly related to progressing amendment of Article 7 of CONAMA Resolution 267.

For the Refrigeration Service Technician, and Customs Officer, Training Projects that were being implemented by GTZ, the I&M Unit was involved in liaison with GTZ and SENAI over the design of the Service Technician Training Project, the details of the data base on technicians required to be able to select technicians with the maximum potential to recover CFC-12 refrigerant to whom recovery equipment would be provided.

More details on the individual activities managed by the I&M Unit can be found in the following reports on the progress made in the implementation of the individual projects in the First Phase Implementation Plan.

3.1.1 National CFC Phase-out Plan Publicity Campaign (I&M Unit Activity):

Planned Activity: Design and implementation of a Publicity Campaign to inform stakeholders about the National CFC Phase-out Plan;

Achievements: In addition to the publication of editals requesting CFC consuming enterprises in specific sectors to contact the Unit for information and potential participation in the NPOP, the I&M Unit took other positive steps to publicise the NPOP via the media, as well as by actively participating in appropriate events that presented opportunities to publicise the NPOP to target audiences. The activities including the following:

- October 2002 – October 2003: Publication of articles, newsletters, and information bulletins in magazines and journals pertaining to the refrigeration and air-conditioning industry, Trade Associations, and private sector publications of EMBRACO and TECUMSEH, informing the industry of the approval of the NPOP, its objectives, and the assistance available to help reduce the economic impact of the CFC phase-out.

- October 2002: Active participation in an event organised by ABRAVA, (Brazilian Association of Refrigeration, Air Conditioning and Heating) to inform the industry of the approval of the NPOP, its objectives, and the content and assistance available to industry.

- February 2002 – October 2003: Preparation and distribution of an information folder on the NPOP to the relevant Government Ministries, National and Private Sector Implementation Partners, Industry Trade Associations, SENAI (National Training Organisation), National Ozone Group, etc.

- September 2003: Active participation, together with the Chief, MPU, and UNDP country office MP staff focal points, to further promote awareness of the NPOP in the events of International Ozone Day on 16 September 2003, and several events for the related "Ozone Week" in Brazil that were organised in cooperation with partners at Federal and State levels, and with Industry Associations and private sector enterprises. These events were strongly supported by the Government with attendance by the Minister of Environment and other high-level government officials from other Ministers. These events attracted hundreds of participants and they gained prime time TV coverage. A commemorative

stamp was also launched on Ozone Day as well as a radio campaign in partnership with the Ministry of Health.

- 30 September – 03 October 2003 – Active participation in FEBRAVA 2003, an International Refrigeration, Air-conditioning, Ventilation, Heating, and Air Quality Fair, in Sao Paulo. Part of a large stand in this International Fair was devoted to promoting the Brazil National CFC Phase-out Plan. This featured poster displays, presentations, and handouts on the activities and objectives of the Plan and it attracted a large number of visitors interested in knowing more about the Plan. While promoting the NPOP and its objectives, particular focus at this event was devoted to the Service Technician Training Project, and the related CFC-12 Recovery and CFC-12 Reclaim Centre Projects given their imminent start-up.

3.1.2 Revision of Existing Regulations & Policies (NOU Activity):

Planned Activity: Review and amendment of existing CFC phase-out policies and regulations so as to make them consistent with the National CFC Phase-out Plan as approved by the Executive Committee of the Multilateral Fund;

Achievements: After major efforts from UNDP and the I&M Unit (Ref: "***Important Background Information Related to Implementation of the Plan***" the necessary revision of Article 7 of CONAMA Resolution 267 was finally approved on 25 September 2003. Without this revision equipment procurement activities could not move forward for most of the refrigeration and air-conditioning service sector project activities, so this was considered a major achievement. Other revisions of existing policies and regulations are required to achieve consistency with the NPOP. The I&M Unit in 2004, with UNDP's assistance, will guide the NOU to work on such changes in existing policies and regulations, and the main activities are summarised in the Second Phase Implementation Work Plan (Ref. #5 *Government Action* in Section 2 of this Report).

3.1.3 2002 – 2003 Work Programme (I&M Unit Activity):

Planned Activity: Preparation of a detailed work programme for the project activities in each sector with defined milestones and responsibilities for monitoring progress of the Implementation Plan;

Achievements: This activity was accomplished immediately following the establishment of the I&M Unit in October 2002. UNDP International Consultants prepared Implementation Plans for each project activity that specified the sequence of actions to be followed to progress implementation of the different projects, the person or body responsible, and the target dates for completion of each activity.

While these plans were revised during missions by the International Consultants based on achievement, it must be said that communication from the I&M Unit to UNDP and the UNDP Consultants between missions must be improved. Reports from the I&M Unit related to project implementation activities were communicated mostly verbally, with no detailed written reports describing the progress made in individual projects, and the necessary adjustments to the agreed time scales for such agreed actions, and the required proposals for necessary modification of the agreed action plans. UNDP has requested that any changes in the agreed actions related to project implementation must be officially communicated to UNDP, in writing so UNDP and the Unit can maintain a proper filing system where all decision taken related to implementation of the National Plan are registered. The need for an effective communication strategy that is based on written information has been discussed several times with the Technical Coordinator of the I&M Unit. While the Technical Coordinator attempted to change and improve the communication process, the changes have not really been implemented in a coordinated and consecutive

manner. A way to dramatically improve communication and information sharing between the Unit, UNDP and GTZ for future work must be found and implemented.

The obstacles in progressing key project implementation activities created by the existing text of Article 7 of CONAMA Resolution also impacted significantly on progressing the work programmes of individual projects, either directly, or because of lack of resource given the attention required to progressing amendment of the problematic Article 7. It is also important to mention that the revision of legislation, and follow-up time required to get such revisions approved, is not part of the job description for the Implementation & Monitoring Unit. While these activities are the responsibility of the National Ozone Unit staff, for most of the critical period the NOU was not fully operational and had serious difficulties due to changes in reporting line and staff, therefore the I&M Unit had to shoulder most of the burden of the activities related to amendment of Article 7.

I&M Unit Summary Budget Performance 2002 - 2003:

Activity	***Budget US$***	***Expenditure as per 30 September 2003 US$***	***Estimated Expenditure October – December 2003 US$***
Staff Salaries	*147,000*	*79,137*	*20,000*
National Consultants	*48,000*	*18,672*	*12,000*
International Consultants	*120,000*	*80,000*	*40,000*
Mission Travels	*80,000*	*28,344*	*12,000*
Evaluation Mission	*40,000*	*0*	*0*
Audit Service	*40,000*	*0*	*20,000*
Office Rental	*60,000*	*11,061*	*5,000*
Publicity Campaign	*50,000*	*11,000*	*5,000*
Equipment	*70,000*	*20,950*	*8,000*
Training Course	*10,000*	*1,042*	*3,000*
Support Service	*55,000*	*5,621*	*3,000*
Office Supplies	*13,000*	*939*	*1,500*
Operation & Maintenance Equipment/Office	*65,000*	*280*	*1,000*
Communication Costs	*40,000*	*19,403*	*5,000*
Miscellaneous	*22,000*	*3,743*	*2,000*
Totals	***860,000***	***280,192***	***137,500***

3.2 Implementation of Conversion Project Activities to eliminate CFC Consumption in the Foam Manufacturing Sector:

Planned Activity: Enterprise surveys, preparation, review, and approval of projects, and the procurement of the necessary replacement equipment for conversion projects to eliminate CFC consumption at eligible enterprises in the foam-manufacturing sector. Preparation for continuation of activities in 2004.

Achievements: The total funding approved in the NPOP to complete the phase-out of CFC consumption in the foam manufacturing sector was US$ 4.2 million. The remaining consumption of CFCs eligible for MLF finding in the foam sector in 2000 (Decision 35/57) was 611 ODP tonnes. The Brazilian Government target is to eliminate all CFC consumption in the foam sector by the end of 2005. US$ 3.2 million was allocated in the First Phase Implementation Work Plan towards achieving this objective.

To progress project implementation activities the remaining foam sector enterprises were divided into two groups:

- Group 1 – Enterprises manufacturing rigid PU foam (RPF) and integral skin/flexible molded PU foam (ISF/FMF).

- Group 2 – Enterprises manufacturing flexible PU foam (FPF).

Project preparation activities were undertaken immediately for 71 eligible Group 1 enterprises. While 33 eligible Group 2 enterprises had also been identified, more work was required to determine the required conversion technology, and project preparation activities were deferred until equipment procurement activities for the Group 1 enterprises had reached the equipment purchase stage. Group 2 enterprise project preparation activities would then be initiated, and progressed for implementation in the Second Phase Implementation Work Plan in 2004.

The following seven projects covering 71 eligible Group 1 enterprises were prepared and approved by the Brazilian Government according to MLF ExCom policy decisions and guidelines:

Project	Project Impact ODP Tonnes	MLF Grant US$
Luguez Individual Project	43.0	123,950
Shimtek Individual Project	28.6	160,500
Integral Skin/Flexible Molded Foam Umbrella Project (5 enterprises)	55.6	328,000
Small Enterprise Foam Group Project (27 enterprises)	59.9	469,852
Rigid Foam Umbrella Project (19 enterprises)	236.9	1,370,151
Body Board Group Project (5 enterprises)	26.2	107,000
Refrigerated Truck Group Project (13 enterprises)	89.6	441,839
Totals	***539.8***	***3,001,292***

Note: The balance of the budget of US$ 3.2 million allocated for these activities in 2003 – 2003 is dedicated to project design, International and National technical support, and general contingencies costs.

Equipment specifications were prepared and the equipment procurement process was managed by UNDP Brazil. Purchase Orders totalling US$ 1,643,900 have been issued for the equipment items required for all of the above projects. As of October 2003, some equipment is almost ready for delivery, and it is possible that 15 - 20 of the Group 1 recipient enterprises could technically complete their projects by end-2003.

Project preparation activities have been progressed for the 33 eligible Group 2 enterprises engaged in the manufacture of Flexible PU Foam. A technology workshop was conducted for these enterprises, and project documents are now almost complete. The total impact of the Group 2 enterprise projects is 144.9 ODP tonnes. The equipment procurement process up to vendor selection will be completed by end-2003, and after approval of the second tranche of funding for implementation of the NPOP at the 41st Meeting of the Executive Committee of the Montreal Protocol in December 2003, the purchase orders for the equipment will be issued in early January 2004.

Foam Manufacturing Sector Project Summary Budget Performance 2002 - 2003:

Activity	*Budget US$*	*Expenditure as per 30 September 2003 US$*	*Estimated Expenditure October – December 2003 US$*
Purchase of Equipment	*3,023,000*	*1,717,493*	*904,000*
Test Trials	*0*	*0*	*81,000*
International Consultants	*130,000*	*100,000*	*30,000*
National Consultants	*20,000*	*0*	*10,000*
Travel	*10,000*	*1,392*	*3,000*
Technical Workshops	*5,000*	*951*	*3,000*
Contingencies	*12,000*	*0*	*0*
Totals	***3,200,000***	***1,819,836***	***1,031,000***

3.3 Implementation of Conversion Project Activities to eliminate CFC Consumption in the Commercial Refrigeration Manufacturing Sector:

Planned Activity: Enterprise surveys, preparation, review, and approval of projects, and the procurement of the necessary replacement equipment for conversion projects to eliminate CFC consumption at eligible enterprises in the commercial refrigeration manufacturing sector. Preparation for continuation of activities in 2004.

Achievements: The total funding approved in the NPOP to complete the phase-out of CFC consumption in the commercial refrigeration manufacturing sector was US$ 1.988 million. The remaining consumption of CFCs eligible for MLF finding in this sector in 2000 (Decision 35/57) was estimated as 142 ODP tonnes. The Brazilian Government target is to eliminate all CFC consumption in the commercial refrigeration manufacturing sector by the end of 2006. It was recognised that considerable enterprise survey and project preparation activity had to be completed before equipment procurement could be initiated and US$ 0.7 million was allocated in the First Phase Implementation Work Plan towards achieving the objective of phase-out by end 2006.

An implementation plan with specific actions was agreed with the I&M Unit in October 2002. In late October 2002 the I&M Unit sent out a fax message cum questionnaire to some 172 enterprises advising them of the phase-out of CFCs in Brazil under the NPOP, and the availability of financial assistance for eligible enterprises. The message advised that this was a once and only opportunity to be considered for such assistance, and it contained a brief questionnaire to be returned to the I&M Unit by a specified date.

This action produced only 16 responses, and only 9 of these were from enterprises consuming CFCs in the manufacture of commercial refrigeration equipment. The total CFC consumption involved was circa 7 ODP tonnes, but an undefined part of this was for service activities.

Additional enterprises believed to be consuming CFCs in the manufacture of commercial refrigeration equipment were identified from companies registered with IBAMA, and this took the total number of enterprises believed to be engaged in the manufacture of commercial refrigeration equipment to over 700. A telephone survey of these enterprises was undertaken by the I&M Unit to identify those consuming CFCs and also meeting eligibility criteria for MLF assistance. This proved to be an extremely time consuming exercise, and again the level of enterprise cooperation was very low, possibly because the contact was via a recognised Government entity.

A new approach was adopted in August 2003 with the assistance of PU systems houses and CFC distributors. As of October 2003, 80 enterprises have been identified, and questionnaires have been sent to collect baseline data and to establish eligibility. The plan is to prepare individual conversion projects for enterprises with annual CFC consumption in excess of 5 tonnes, while a group project approach will be used for the smaller enterprises, possibly with their system supplier as facilitator.

It is expected enterprise consumption data and eligibility will be confirmed by end-October 2003, and projects proposals will be prepared and peer reviewed by end-November 2003. Equipment procurement activities are then planned for early December 2003.

Due to the difficulties mentioned, implementation of this project is delayed when compared to the original plan. Other factors contributing to the delay were the resource limitations at the I&M Unit, and the lower priority accorded to this project activity based on the low level of ODS consumption. The priority and the level of funding accorded to this project will be reviewed at the end of 2003 in the light of the complete data on CFC consumption data and enterprise eligibility.

Commercial Refrigeration Manufacturing Sector Project Summary Budget Performance 2002 - 2003:

Activity	***Budget US$***	***Expenditure as per 30 September 2003 US$***	***Estimated Expenditure October – December 2003 US$***
Purchase of Equipment	*430,000*	*0*	*0*
International Consultants	*10,000*	*10,000*	*0*
National Consultants	*20,000*	*15,277*	*4,723*
Travel	*10,000*	*6,607*	*3,330*
Totals	***470,000 ****	***31,884***	***8,053***

** US$ 230,000 transferred to CFC-12 Recovery Project to cover higher than budgeted equipment costs in that project.*

3.4 Implementation of Technician Training Project Activities in the Domestic/Commercial Refrigeration Service Sector:

Planned Activity: Technician identification, "Train-the-Trainers", and training of 7,000 domestic/commercial refrigeration service sector technicians in the South East Region in CFC-12 refrigerant containment, recovery, recycle, replacement, etc. Preparation for continuation of activities in 2004. (***GTZ Activity***);

Achievements: This project is to train refrigeration service mechanics and technicians, engaged in the installation and maintenance of domestic and commercial refrigeration systems and equipment throughout Brazil, in CFC management and conservation, including recovery, recycling, recharge, replacement refrigerants, retrofit refrigerants, and storage. This is related to separate investment projects that will provide appropriate equipment to trained technicians that will enable them to recover CFC-12 and replace it with non-CFC refrigerants in the course of their work, and the establishment of regional centres that will reclaim the recovered CFC-12.

The project involves 2,188 training courses for an estimated 35,000 technicians spread over five years and it was considered imperative to commence this activity as soon as possible. Therefore, when the I&M Unit was established in October 2002 GTZ immediately initiated actions with the NOU and the I&M Unit to progress project implementation of the training project. There were delays in progressing the formal

agreements between the Governments of Germany and Brazil related to the bilateral assistance, and the agreement is the final stage of formal ratification by the Foreign Ministries of both countries.

Nevertheless, GTZ made rapid progress in establishing the structure for implementation of the service technician training project, and the following is a summary of activities and achievement during the period August 2002 – September 2003:

- GTZ has assigned a permanent National contact and communication officer in Brazil who is available to all stakeholders.

- The local GTZ representation has set up a system for managing the financial and administrative aspects of the technician training and customs officer training projects.

- The planned activities related to the Technician Training Project in the First Phase Implementation Work Plan had to be adjusted as a consequence of the delay in procuring the equipment for the related CFC-12 Recovery Project. These adjustments were consensually agreed with all stakeholders.

- The National partner institution selected to implement the Technician Training Project is SENAI, the Brazilian National Training Organisation. It is anticipated that through SENAI an awareness of the need to phase-out CFC consumption among teachers and stakeholders can be institutionalised in Brazil on a sustainable basis.

- The Technician Training Project foresaw the involvement of additional partners from the private sector to increase the range and impact of the project. One additional partner, ELETROS, the Brazilian National Domestic Appliances Manufacturers Association, is strongly committed to CFC phase-out activities and it has already trained more than 1,500 service technicians from the authorised service workshops of its members in refrigerant recovery techniques and Montreal Protocol issues.

- A database for monitoring purposes has been developed and is ready for implementation.

- The Brazilian hermetic compressor manufacturer EMBRACO, which maintains the largest National refrigeration news network, has committed to participate in the media campaign for to identify service technicians for the training project.

- 32 SENAI trainers successfully completed a train-the-trainer workshop organised under the project in November 2002, and SENAI is already including refrigeration service best practice and refrigerant recovery issues into the regular training of refrigeration mechanics throughout their refrigeration schools.

- All the preparations to be able to start the Technician Training Project are finalised, and training materials have been developed. Training will commence immediately that CFC-12 recovery equipment is in-hand to distribute to selected technicians that successfully complete the training and can demonstrate potential to recover CFC-12 refrigerant.

Technician Training Project Summary Budget Performance 2002 - 2003:

Activity	*Budget US$*	*Expenditure as per 30 September 2003 US$*	*Estimated Expenditure October – December 2003 US$*
Purchase of Equipment	*342,900**	-	*342,900*
Train-the-Trainers	*230,000*	*110,000*	*120,000*
International Consultants	*43,400*	*21,115*	*22,285*
Technicians Courses	*730,584**	-	*730,584*
Material Development	*81,000*	*33,000*	*48,000*
Monitoring	*42,287*	*6,000*	*36,287*
Administration/Coordination Unit	*28,629*	*18,500*	*10,129*
Totals	***1,498,800***	***188,615***	***1,310,185***

** Even though training is in parts already ongoing and funding has been committed, the actual payment depends on the final establishment of the bilateral agreement with Brazil. However, it is expected that latest by November these issues will have been resolved and due payments will be paid out.*

3.5 Implementation of CFC Recovery Project Activities in the Domestic/Commercial Refrigeration Service Sector:

Planned Activity: Procurement of 3,000 sets of CFC-12 recovery equipment and supply of same to selected domestic/commercial refrigeration service sector technicians in the South East Region who successfully complete the training course in CFC-12 refrigerant containment, recovery, recycle, replacement, etc. Monitoring of the amount of CFC-12 recovered by the service technicians supplied with the CFC-12 recovery equipment. Preparation for continuation of activities in 2004.

Achievements: CFC-12 consumption in the Domestic & Commercial Refrigeration Service Sector, the largest CFC consuming sector in Brazil in 2000, was estimated as 4,172 ODP tonnes. This project is to enable CFC-12 recovery throughout Brazil during the service of domestic and commercial refrigeration equipment by providing CFC-12 recovery and storage equipment to selected refrigeration technicians that successfully complete the above-mentioned technician-training programme. It will also permit the subsequent reclaim of the recovered CFC-12 at regional refrigerant reclaim centres that are the subject of a related investment project within the NPOP. To achieve the maximum benefit from this project, the CFC-12 recovery equipment must be provided to technicians immediately following successful completion of the training.

A project implementation plan was prepared in early October 2002, together with equipment specifications, and a draft "Agreement" between the Government of Brazil and technicians that were selected to receive CFC-12 recovery equipment. It was at this time that the very restrictive and technically incorrect specifications in Article 7 of CONAMA Resolution 267 relating to the cylinders permitted for use with recovered CFCs was discovered. While it was planned that the equipment procurement process to be conducted by UNDP Brazil would be completed with the issue of a purchase order for the CFC-12 recovery equipment once the project document was signed, without revision of the Article 7 of CONAMA Resolution 267, procurement of the CFC-12 recovery equipment could not be progressed.

The obstacles in progressing key project implementation activities created by the existing text of Article 7 of CONAMA Resolution also impacted significantly on progressing the work programmes of individual projects, either directly, or because of lack of resource given the attention required to progressing amendment of the problematic Article 7.

As a consequence of the impediment to project implementation created by Article 7 of CONAMA Resolution 267, revision of the steps in the implementation plan were necessary, although it was still believed that a rapid solution to the problem could be found by way of revision of Article 7 of CONAMA Resolution 267. This was considered essential as the requirement to also use cylinders to the NBR 12,790 and NBR 12.791 Standards to commercialise both CFC-11 and CFC-12 was contrary to common practice in Brazil and the rest of the world.

While a proposed amendment to the text of Article 7 of CONAMA Resolution No. 267 was prepared by UNDP and the I&M Unit for consideration by a plenary meeting of CONAMA in early December 2002, it was 25 September 2003 before changes to Article 7 were formally approved by the Environmental Council, CONAMA. Only then could the purchase order for the first lot of CFC-12 recovery equipment be issued.

The budget for CFC-12 recovery equipment in the NPOP was based on locally manufactured CFC-12 recovery machines. It subsequently transpired that the locally manufactured recovery machines did not meet the required specifications. As a result the cost of the CFC-12 recovery equipment was significantly higher than budgeted, and instead of being able to purchase 3,000 sets of equipment with the funding allocated in 2002 - 2003, only 2,000 sets could be procured. A purchase order for this equipment was issued on 29 September 2003 and delivery of the CFC-12 recovery equipment is expected to commence in December 2003.

CFC-12 Recovery Project Summary Budget Performance 2002 - 2003:

Activity	***Budget US$***	***Expenditure as per 30 September 2003 US$***	***Estimated Expenditure October – December 2003 US$***
Purchase of Equipment	*1,700,000*	*1,656,200*	*0*
International Consultants	*20,000*	*20,000*	*0*
National Consultants	*5,000*	*0*	*0*
Travel	*5,000*	*480*	*4,750*
Totals	***1,730,000 ****	***1,676,680***	***4,750***

** US$ 230,000 transferred from Commercial Refrigeration Manufacturing Sector Project to cover higher than budgeted equipment costs.*

3.6 Implementation of CFC Reclaim Project Activities in the Domestic/Commercial Refrigeration Service Sector:

Planned Activity: Selection of sites and operators for two CFC-12 reclaim centres in the South East Region of Brazil, and procurement and supply of the equipment for same. Monitoring of the amount of recovered CFC-12 received by these centres from the service technicians supplied with the CFC-12 recovery equipment, and the amounts of CFC-12 reclaimed at the centres. Preparation for continuation of activities in 2004.

Achievements: This project is linked to the both the Refrigeration Service Technician Training Project, and the CFC-12 Recovery Project. If there are no reclaim centres established, then the recovered CFC-12 cannot be reclaimed, while if there is no recovery of CFC-12, the reclaim centres have no recovered CFC-12 feedstock to process into reclaimed CFC-12. The objective of the project is to establish convenient regional centres to enable the reclaim of the CFC-12 recovered by the refrigeration technicians during the

service of domestic and commercial refrigeration equipment. To achieve the maximum benefit from this project then, regional reclaim centres must be operational in regions as and when technicians in that region are trained and provided with CFC-12 recovery equipment.

It was agreed with GTZ that training activities in the first two years would focus on technicians in Sao Paulo, and Rio de Janeiro, and hence the objective of the project in 2002 – 2003 was the establishment of one CFC-12 reclaim centre in Sao Paulo, and another in Rio de Janeiro.

An implementation plan was developed with the assistance of the UNDP International Consultant, and actions were initiated in October 2002. The first step involved the formal announcement in selected newspapers in Sao Paulo and Rio de Janeiro of the Governments intention to establish the CFC-12 reclaim centres. Interested parties were invited to contact the I&M Unit for more information. In parallel with this, the I&M Unit made direct contact with three enterprises identified as already involved in some CFC-12 refrigerant recovery and recycling activities. Assistance in identifying other enterprises with the potential to establish and operate the reclaim centres was requested in meetings with the major CFC refrigerant suppliers. All parties expressing interest were briefed on the CFC-12 Reclaim Centre Project, and invited to submit formal commercial proposals to the I&M Unit for the establishment and operation of such CFC-12 reclaim centres.

The results of the press announcements and the requests for assistance from the major refrigerant suppliers was disappointing and the final yield amounted to five proposals to establish a CFC-12 reclaim centre in Sao Paulo.

In parallel with these activities, a draft "Agreement" between the Government of Brazil and enterprises selected to receive the equipment to establish and operate the CFC-12 reclaim centres was prepared, including a draft list of equipment to be supplied, and this was submitted for review/approval to the Legal Department of the Ministry of Environment. Specifications for the equipment items were also prepared, and the original project implementation plan envisaged the issue of purchase orders for the equipment for both CFC-12 reclaim centres in February 2003. However, the as the specifications for the equipment for the CFC-12 reclaim centres also included cylinders for "commercialising" reclaimed CFC-12 for which cylinders to the US DOT specifications were proposed, and these were in conflict with the text of Article 7 of CONAMA Resolution 267, the Government would not permit the equipment procurement process to be progressed before formal amendment to Article 7 of CONAMA Resolution 267.

The selection of the enterprise to establish and operate a CFC-12 reclaim centre in Sao Paulo was completed in June 2003. At the same time the I&M Unit began a new search for an enterprise to establish and operate a CFC-12 reclaim centre in Rio de Janeiro by inviting proposals from eight enterprises identified with the assistance of the largest refrigerant supplier.

As of October 2003, the I&M Unit is performing the analysis of the six proposals received in order that it can select an enterprise to establish and operate a CFC-12 reclaim centre in Rio de Janeiro.

A "Final" version of the "Agreement" between the Government of Brazil and the enterprises selected to receive the equipment to establish and operate the CFC-12 reclaim centres is pending clearance from the Legal Department of the Ministry of Environment.

The invitation to bid for the supply of equipment for the CFC-12 reclaim centre in Sao Paulo has been issued and the closing date for receipt of bids is 30 October 2003. The Procurement Notice has been advertised at the IAPSO web page as agreed with the ExCom, under procurement practices to be followed by UNDP.

The delay in setting up the CFC-12 reclaim centres is largely due to the problems associated with Article 7 of CONAMA Resolution 267, but also partly due to the generally poor quality of the proposals received from enterprises interested in operating the reclaim centres, and the resulting difficulties in selecting an enterprise that can be confidently expected to successfully implement the project and achieve the project goals.

CFC-12 Reclaim Centre Project Summary Budget Performance 2002 - 2003:

Activity	*Budget US$*	*Expenditure as per 30 September 2003 US$*	*Estimated Expenditure October – December 2003 US$*
Purchase of Equipment	*680,000*	*350,000*	*0*
International Consultants	*10,000*	*10,000*	*20,000*
National Consultants	*5,000*	*0*	*0*
Travel	*5,000*	*265*	*2,000*
Totals	***700,000***	***360,265***	***22,000***

3.7 Implementation of CFC Recovery & Recycle Project Activities in the Industrial Refrigeration & Central Air-Conditioning (Centrifugal Chillers) Service Sector:

Planned Activity: Procurement of 8 sets of CFC-11 and CFC-12 recovery and recycle equipment suitable for the recovery and recycle of CFC refrigerant during the service and repair of CFC-based centrifugal chillers, and supply of same to 8 enterprises in the South East Region who specialize in these activities. Monitoring of the amounts of CFC-11 and CFC-12 recovered and recycled by the enterprises supplied with the CFC-11 and CFC-12 recovery and recycling equipment. Preparation for continuation of activities in 2004.

Achievements: It was estimated that in 2000 there were around 700 CFC based centrifugal chillers used in industrial process refrigeration and building air-conditioning in Brazil. Consumption of CFCs in the centrifugal chiller service sector in 2000 totalled 74 ODP tonnes, comprised of 28 ODP tonnes of CFC-11, 60 ODP tonnes of CFC-12. Following approval of the National CFC Phase-out Plan, the Government now plans to set the phase-out date for CFC-11 and CFC-12 consumption as 31 December 2008, except for "uses to meet the applications considered to be "essential use", as defined in Article 4 of CONAMA Resolution 267" where the phase-out is effective from 01 January 2001.

To achieve the phase-out of CFC consumption in the centrifugal chiller service sector by 31 December 2008, this project is designed to reduce the consumption of virgin CFCs during the service and repair of centrifugal chillers, and to also to prolong their useful working life and avoid premature retirement. This project involves the supply of recovery/recycling machines and ancillary equipment, and training of service mechanics in its use.

Again a work plan with specific actions to progress implementation of the CFC Chiller R&R project was prepared with the assistance of the UNDP International Consultant in October 2002. The project objective was to use the US$ 650,000 allocated for this project activity in 2002 – 2003 to supply at least 8 of the enterprises with the highest CFC consumption out of the estimated 15 principal enterprises engaged in CFC-based chiller repair and service activities in Brazil with CFC-11 and CFC-12 Chiller Recovery & Recycle Machines and associated refrigerant tanks.

A key first step was identification and confirmation of the principal enterprises engaged in the repair and service of CFC based centrifugal chillers in Brazil. The I&M Unit published a formal announcement of the project in newspapers in the States of Sao Paulo and Rio de Janeiro inviting interested parties to contact the Unit, and information was also sought from National Consultants, local representatives of the chiller manufacturers, and ABRAVA.

In parallel with this activity, a draft "Agreement" between the Government of Brazil and enterprises selected to receive the chiller R&R equipment was prepared, and this was submitted for review/approval to the Legal Department of the Ministry of Environment. Only limited progress could be made in October 2002 in the preparation of equipment specifications, as the required equipment would be specific to each individual enterprise. Nevertheless, the project was considered to be simple and straightforward, and the work plan envisaged implementation activities being progressed to the point of the issue of purchase orders for the equipment in late January 2003.

Cooperation of enterprises and other parties in the supply of information to the I&M Unit was poor, and it proved impossible to implement the actions in the original work plan leading up to the selection of the enterprises to receive R&R equipment in 2003. In June 2003 a National Consultant with experience in the centrifugal chiller service sector was recruited to make a survey of the sector. Initially the National Consultant was to contact all major chiller service enterprises in Brasilia to seek general information on the population of CFC based chillers in Brasilia, and any relevant information on CFC based chillers in other regions of Brazil.

Based on the results of this approach to the chiller service enterprises in Brasilia, the Consultant was to expand his investigation of the CFC chiller sector by meetings with all of the chiller service enterprises in a new list of over 30 enterprises in Sao Paulo, Rio de Janeiro, and Belo Horizonte. These were believed to be the major locations of chillers in Brazil. The overall objectives of this investigation were:

a) To establish a database of CFC based Chillers throughout Brazil by:

- Location
- Use (Central A/C or Industrial Refrigeration)
- By CFC type (CFC-11 or CFC-12)
- By age (where possible)
- Brand (Carrier, Trane, York, etc. – where possible)

b) To link the service of these Chillers to the respective Chiller Service Enterprise, together with the amounts of CFC-11 and CFC-12 that each Chiller Service Enterprise consumes each year in the service of centrifugal chillers.

This database would then be used to prepare a list of enterprises engaged in the service of centrifugal chillers in order of CFC consumption, and to recommence project implementation through to equipment procurement based on the approach in the original work plan. The target for completion of the survey and progressing the implementation work plan was mid-August 2003.

It has to be recognised that Article 7 of CONAMA Resolution 267 prevented on-site recovery and recycling of CFC refrigerants and, as a result of this, implementation of this project could also have been delayed.

However, as of October 2003, a preliminary report from the I&M Unit indicates that only eight enterprises covered by the survey demonstrated any interest in participating in a project to recover and recycle CFC refrigerants during repair and service activities related to centrifugal chillers. A "Final" version of the "Agreement" between the Government of Brazil and the enterprises selected to receive the

equipment to practice CFC refrigerant R&R during the service and repair of centrifugal chillers is pending clearance from the Legal Department of the Ministry of Environment. It appears that local agents of the chiller manufacturers, or their authorised affiliates, carry out the majority of the service of CFC based centrifugal chillers, and these enterprises are more interested in replacing the existing CFC based chillers with new chillers based on non-CFC refrigerants. This situation, and the best way to proceed with measures to reduce CFC consumption in the centrifugal chiller service sector while protecting the interest of chiller owners, is under consideration by the Government.

CFC Centrifugal Chiller R&R Project Summary Budget Performance 2002 - 2003:

Activity	***Budget US$***	***Expenditure as per 30 September 2003 US$***	***Estimated Expenditure October – December 2003 US$***
Purchase of Equipment	*608,000*	*0*	*0*
International Consultants	*20,000*	*20,000*	*0*
National Consultants	*20,000*	*2,533*	*3,000*
Travel	*2,000*	*474*	*500*
Contingencies	*0*	*0*	*0*
Totals	***650,000***	***23,007***	***3,500***

3.8 Implementation of CFC Recovery & Recycle Project Activities in the MAC Service Sector:

Planned Activity: Training of 50 MAC service technicians in the South East Region and the procurement and supply to the workshops employing these technicians of 50 sets of CFC-12 recovery and recycle equipment suitable for the recovery and recycle of CFC refrigerant during the service and repair of CFC-12 MAC systems as a "Pilot Project" for the MAC service sector. Monitoring of the amount of CFC-12 recovered and recycled by the MAC workshops supplied with the CFC-12 recovery and recycle equipment. This project was later renamed "Phase I Project". Preparation for continuation of activities in 2004.

Achievements: Consumption of CFC-12 in the MAC service sector in 2000 was estimated as 660 ODP tonnes. Following approval of the National CFC Phase-out Plan, the Government now plans to set the phase-out date for CFC-11 and CFC-12 consumption as 31 December 2008, except for "uses to meet the applications considered to be "essential use", as defined in Article 4 of CONAMA Resolution 267" where the phase-out is effective from 01 January 2001. To achieve the phase-out of CFC-12 consumption in the MAC service sector by 31 December 2008, this project is designed to reduce the consumption of virgin CFCs during the service and repair of MAC systems, and to prolong the useful working lifetimes of CFC based MAC systems.

As other CFC consuming activities were accorded a higher priority for the use of the funding approved for 2002 - 2003, the approach to activities in this sector was to allocate funding of US$ 250,000 for a pilot project in the MAC service sector in Sao Paulo involving training of MAC service mechanics at selected workshops, and the supply of recovery/recycling machines and ancillary equipment. It was also intended that through careful monitoring this pilot project would yield better information on the actual levels of CFC consumption in this sector, and that the results of the 'Pilot" project would be used to determine the levels of funding to be allocated to activities in this sector in subsequent years of the NPOP.

Because of the lower priority, the work plan to progress implementation of this pilot project was prepared only in November 2002. The key first step in progressing implementation was identification of an

experienced National Consultant to prepare the scope of the Pilot Project, agree a budget to the envisaged activities, identify participants, and to implement and closely monitor achievements of the project, with of course assistance from the Implementation & Monitoring Unit.

The UNDP International Consultant provided guidance on these activities, also in November 2002, and subsequently prepared draft specifications for the equipment that was anticipated would be required. Clearly, to yield useful information on both CFC consumption in the MAC sector and the effectiveness of the pilot project in reducing such consumption, and to be useful in determining the levels of funding to be allocated to activities in this sector in the 2004 Implementation Work Plan, then something of the order of six months of results from the pilot project would be required. This then required that the equipment should be delivered and commissioned, and the training should be completed, by April 2003.

There was a delay in identifying and hiring experienced National Consultants. A survey of some 70 MAC workshops in Sao Paulo was completed in September 2003, all of whom expressed interest in participating in the proposed pilot project.

Again it has to be recognised that Article 7 of CONAMA Resolution 267 prevented on-site recovery and recycling of CFC refrigerants and, as a result of this, implementation of this project could also have been delayed.

As of October 2003, equipment specifications have been prepared by UNDP, a project proposal describing the scope of the project and defining the project budget has been finalized by the National Consultants. A final "Agreement" between the Government of Brazil and the enterprises selected to receive the MAC R&R equipment is being drafted for Government clearance. One information workshop was conducted with 50 enterprises that have been selected to receive equipment according to criteria approved by the Government. The Chief MPU attended this workshop and addressed the participants, which were very motivated to undertake the activities in the project. The workshop took place in ABRAVA, the Brazilian association for ventilations and air conditioning, which has been assisting the Government.

The I&M Unit is currently working with the National Consultants to progress the work. UNDP Brazil will post the Procurement Notice on the IAPSO website and issue the invitation to bid for the supply of the MAC R&R equipment in mid-October 2003.

MAC CFC-12 R&R Project Summary Budget Performance 2002 - 2003:

Activity	***Budget US$***	***Expenditure as per 30 September 2003 US$***	***Estimated Expenditure October – December 2003 US$***
Purchase of Equipment	*150,000*	*0*	*0*
International Consultants	*15,000*	*0*	*15,000*
National Consultants	*80,000*	*40,000*	*30,000*
Travel	*5,000*	*700*	*1,000*
Totals	***250,000***	***40,700***	***46,000***

3.9 Implementation of Customs Officer Training Project Activities:

Planned Activity: A "Train-the-Trainers" programme will train a total of 60 customs officer trainers from 24 states and 49 port and airport authorities. Customs officers will then be trained in proper checking, recognition, testing and monitoring of imports of CFCs.

Achievements: The monitoring and control of imports of bulk CFCs, mixtures of CFCs with other chemical substances, and products and equipment containing, or designed to contain or use CFCs, is crucial to Brazil achieving the Montreal Protocol compliance targets on CFC consumption, and successful implementation of the revised Brazil National CFC Phase-out Plan, and the phase-out of all non-essential uses of Annex A CFCs as defined in CONAMA Resolution 267 by 31 December 2008. This project will train Customs officers in the checking, recognition, testing and monitoring of CFC imports. Because of the importance of this project, all of the approved funding of US$ 141,200 for this project has been allocated in 2002-2003.

Following the clarification of the note exchange between the bilateral partners, all preparation work for the Train-the-Trainer workshop has been finalised. A training manual and other material have been developed in Portuguese and several meetings with the fiscal authorities have taken place where the training needs and the reporting systems have been reviewed. The final training courses will take place in November 2003 and a total of 70 trainers will have been trained by then. The training has been planned and coordinated together with the NOU and the IBAMA who also participate with representatives in the training activity. The international consultant will assist in the follow up of the training and provide further assistance to the Government of Brazil in making necessary adjustments to ensure a workable statistical registration system to monitor CFC imports. The nationwide implementation of the training will consecutively start from the 11 November 2003 on and is expected to be completed latest by the end of 2004.

Customs Officer Training Project Summary Budget Performance 2002 - 2003:

Activity	***Budget US$***	***Expenditure as per 30 September 2003 US$***	***Estimated Expenditure October – December 2003 US$***
International Consultants	*20,900*	*9,000*	*11,900*
National Trainers	*65,500*	*-*	*65,500*
Workshops/Materials development	*47,000*	*15,500*	*31,500*
Contingency	*7,800*	*-*	*7,800*
Totals	***141,200***	***24,500***	***116,700***

3.10 2002 CFC Consumption Verification Report, Performance & Financial Verification Activities, and Report on Implementation of the 2002 – 2003 Implementation Plan:

UNDP prepared the Report on the 2002 – 2003 Implementation Plan for submission to this last meeting of the Executive Committee of the Multilateral Fund in 2003 as required and ensured that performance and financial verification is in accordance with the Agreement between the Government of Brazil and the Executive Committee of the Multilateral Fund and with specific UNDP procedures and requirements as specified in the National CFC Phase-out Plan for Brazil

Overall Summary Budget Performance August 2002 – December 2003:

Activity	*Budget US$*	*Expenditure as per 30 September 2003 US$*	*Estimated Expenditure October – December 2003 US$*
I&M Unit Project	*860,000*	*280,192*	*137,500*
Foam Mfg. Sector Project	*3,200,000*	*1,819,836*	*1,031,000*
Com Ref Mfg Sector Project	*470,000 **	*31,884*	*8,053*
Technician Training Project	*1,498,800*	*188,615*	*1,310,185*
CFC-12 Recovery Project	*1,730,000 **	*1,676,680*	*4,750*
CFC-12 Reclaim Centre Project	*700,000*	*360,265*	*22,000*
CFC Chiller R&R Project	*650,000*	*23,007*	*3,500*
CFC-12 MAC R&R Project	*250,000*	*40,700*	*46,000*
Customs Officer Training Project	*141,200*	*24,500*	*116,700*
Totals	***9,500,000***	***4,445,679***	***2,679,688***

** US$ 230,000 was transferred from the original 2002 – 2003 budget for the Commercial Refrigeration Manufacturing Sector Project to cover higher than budgeted equipment costs in the CFC-12 Recovery Project.*

Consumption data verification: Brazil has reported 2002 ODS consumption, imports and exports data to the Ozone Secretariat as required by Article 7 of the Montreal Protocol. The 2002 Annex A Group I substances consumption data has been verified by independent auditor group. The report is with UNDP and available upon request.

As far as the data collection procedure, the auditor was granted access by the Government to the official registers and collected information needed to verify consumption. The following official information suppliers were consulted:

- SECEX/ SISCOMEX (Secretaria de Comercio Exterior): the Government Register at the Secretariat of External Trade) where all information concerning substances which are imported and exported are listed.
- IBAMA Register (Minister of Environment Enforcement Institution), where according to the Conama resolution 287, enterprises must register at IBAMA and get import authorized.

Non-Official suppliers: Importers were consulted for confirmation purposes (DuPont, Frigelar and Atofina).

Conclusions:

Maximum Permitted Annual Consumption of Annex A, Group I, CFCs under the "Agreement" for the National CFC Phase-out Plan (ODP Tonnes): 8,280 ODP tonnes. Actual Annual Consumption Annex A, Group I, CFCs (ODP Tonnes) as submitted by the Government based on compilation and analyses of data from IBAMA and SISCOMEX: 3,000 ODP tonnes.

Auditor's report indicate that:

- There are differences in reported data using the 2 sources (Siscomex or Ibama) for CFC 11 and 12 but for the other CFCs there are no inconsistencies. Data collected and verified from the Secretariat of External Trade (Secex/ SISCOMEX) indicated that the consumption reported to the Ozone Secretariat was higher by about 300 ODP tonnes. Using the data verified from SISCOMEX, consumption reported would be **2,668.62** ODP tonnes of Annex A Group I substances. Despite the differences pointed in the reporting methodology used due to cross checking process with IBAMA register, Brazil has complied with the reduction targets in the

Agreement and even surpassed them. In addition, by looking at 9 months of available data at Siscomex in 2003, Brazil will also meet the 2003 targets in the Agreement. There have been questions about monitoring exports to developed countries, as this internal monitoring of exports of CFCs for alleged essential uses is not clear.

- The Auditor recommends that Conama Resolution 267 is revised as Article 3 is ambiguous and confuses reporting. In depth analyses of legislation in relation to the 2 methodologies (Ibama and Siscomex) is required as to better advise on future actions needed as far as continuation or change in the process.

- In relation to reduction from the ongoing projects, the auditor confirms that 1,184 ODP tonnes were eliminated. He points out that the projects were indeed finalized but the total figure of ODP tonnes reduced were not actual 2002 enterprise consumption and therefore the resulting reduction reflects the ODP impact at the time the project was approved, as this is the way the reduction was reflected in the Agreement and in the MLF inventory of projects.

3.11 Preparation of 2004 Implementation Work Plan, etc. (Including all other UNDP responsibilities as defined in # 12 of the Agreement between the Government of Brazil and the Executive Committee of the Multilateral Fund:

Planned Activity: During 2003 UNDP will assist Brazil in the preparation of the 2004 Implementation Work Plan, and fulfil all other responsibilities as defined in # 12 of the Agreement between the Government of Brazil and the Executive Committee of the Multilateral Fund;

Achievements: The 2004 Implementation Work Plan has been prepared based on the assumption that the full second tranche of funding of US$ 6.42 million agreed in principle and as stated in the "Agreement" between the Executive Committee of the Multilateral Fund and the Brazilian Government, will be approved at the 41st Meeting of the Executive Committee in December 2003. This 2004 Implementation Work Plan is presented in the format as recommended by the MLF Secretariat in the preceding section of the report.