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COMITÉ EJECUTIVO DEL FONDO MULTILATERAL
PARA LA APLICACIÓN DEL
PROTOCOLO DE MONTREAL
Cuadragésima Reunión
Montreal, 16 al 18 de julio de 2003

PROPUESTA DE PROYECTO: CHINA

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

Solvente

- Eliminación de SAO en sector de solventes: programa anual de ejecución para 2003 — PNUD

Informe actualizado sobre la marcha de las actividades de 2002

y programa anual de ejecución para 2003

conforme al Plan del sector de solventes de China

DESCRIPCIÓN DEL PROYECTO Y COMENTARIOS DE LA SECRETARÍA

Antecedentes

1. En nombre del gobierno de China, el PNUD presentó a consideración del Comité Ejecutivo un informe actualizado sobre la marcha de las actividades de 2002 y un programa anual de ejecución para 2003, de conformidad con el Acuerdo para el Plan del sector de solventes para la eliminación de SAO en China (el Plan). Los documentos completos se presentan en el Anexo I.

2. El Acuerdo fue aprobado, en principio, en la 30ª Reunión del Comité Ejecutivo en marzo de 2000, a un costo total de $EUA 52 millones. Entre las Reuniones 30ª y 36ª se aprobaron partidas del financiamiento de $EUA 6,75 millones, $EUA 6,955 millones y $EUA 6,33 millones, más costos de apoyo de 10 por ciento, para los programas anuales de ejecución hasta 2002 inclusive.

3. El desembolso de los fondos aprobados para 2002 no se convino hasta la 38ª Reunión (Decisión 38/61), cuando China y el PNUD satisficieron la condición del Acuerdo de informar las cantidades de CTC compradas por plantas específicas para uso de materias primas eximidas y agente de proceso en 2000.

4. En la Decisión 38/61 el Comité Ejecutivo también acordó considerar el programa anual de ejecución para 2003 en su 39ª Reunión. No obstante, el proyecto no se presentó en esa Reunión, porque China en ese momento no había podido satisfacer la condición de informar sobre el consumo de CTC en 2001.

Informe actualizado sobre la marcha de actividades de 2002

5. El informe actualizado sobre la marcha de las actividades aborda ahora las diversas cuestiones planteadas por la Secretaría en la documentación destinada a la 38ª Reunión (UNEP/OzL.Pro/ExCom/38/27, páginas 26 a 31 y Add.2). Esta descripción del proyecto y los comentarios de la Secretaría se prepararon como una adición a la información que se proporcionó a la 38ª Reunión.

Datos del consumo de CTC en empresas para los usos en materia prima y agente de proceso

6. Como lo exige el Acuerdo, el informe actualizado sobre la marcha de las actividades en la sección D (páginas 9 a 14), da una lista con desglose por empresa, de todo el CTC usado para materia prima, agente de proceso y otras aplicaciones todavía no aprobadas por las Partes como agentes de proceso, para el año 2001. La cantidad total usada de 56 43,6 toneladas PAO está por debajo del valor máximo establecido en el Acuerdo, o sea 71 500 toneladas PAO.

7. El informe actualizado sobre la marcha de las actividades también indica que la cantidad total de CFC-113 que se consumió como materia prima en 2001 fue de 655,5 toneladas PAO. El límite establecido en el Acuerdo es de 10 toneladas PAO. El informe declara que "819,40 TM de CFC 113 *[655,5 toneladas PAO]* se convirtieron químicamente a CFC-114/115, CTFE o CFC-113a, y no se consideran como materia prima." La Secretaría entiende que la conversión química es el elemento clave para definir el uso como materia prima. Por lo tanto, las 655 toneladas PAO parecen ser usadas como materia prima y exceden el límite de 10 toneladas PAO establecido en el Acuerdo. Se observa que para el año 2000 también se sobrepasó el límite de 10 toneladas PAO (uso total como materia prima informado: 196 toneladas PAO); no obstante, el Comité Ejecutivo aprobó el programa anual de 2002. Con respecto al uso de CFC-113 para materia prima en el futuro, el PNUD indicó que China limitará la producción de CFC-113 al nivel máximo suficiente para cubrir los límites establecidos en el Acuerdo para las aplicaciones de solventes, materia prima y agente de proceso (párrafo 9 de la Parte II de informe del PNUD). El PNUD indicó también en las aclaraciones hechas a la Secretaría que China tomó medidas estrictas desde 2002 para controlar el uso de CFC-113.

8. La cantidad total de CTC usada en 2001 para usos todavía no clasificados como agentes de proceso se determinó como 4073,3 toneladas métricas. Si bien esta cantidad no se relaciona con el Plan sectorial de solventes, la Secretaría observa que dicha cantidad corresponde a unas 3.300 toneladas métricas menos del consumo máximo para este uso en el año 2002 (el primer año aplicable) incluido en el Acuerdo para la eliminación de la producción y el consumo de CTC en China aprobado en la 38ª Reunión del Comité Ejecutivo.

Contratos para reducción de SAO

9. En la sección C del informe actualizado sobre la marcha de las actividades (párrafo 9), el PNUD confirmó que para el CFC-113 y TCA, China logró los objetivos del programa de ejecución para firmar contratos de eliminación. Para el CTC sigue habiendo un déficit acumulativo de 28,7 toneladas PAO en la eliminación planeada proveniente de los contratos de reducción de CTC. No obstante se indica que el consumo total de CTC está disminuyendo y permanece dentro de los límites establecidos en el Acuerdo (véase la verificación y la auditoría indicadas abajo).

Logro de objetivos de control futuros

10. En respuesta al interrogante anterior de la Secretaría sobre las posibles dificultades para lograr los objetivos del control asignados por mandato en el Acuerdo, el PNUD indicó en el

párrafo 7 de la sección C de su informe que China promulgará reglamentaciones destinadas a controlar el consumo de SAO y expedirá certificados para el consumo de los solventes con SAO. En julio de 2002 se emitieron las reglamentaciones pertinentes a CFC-113 y TCA.

11. En lo referente al CTC en el párrafo 11 de la sección C se indica que China preparó la legislación destinada a prohibir el uso de CTC como un solvente y que entrará en vigencia el 1 de junio de 2003. Se informó que, en consecuencia, China confía en que el consumo de CTC como solvente se habrá eliminado para enero de 2004, tal como lo requiere el Acuerdo.

Verificación y auditoría de objetivos de control previos

12. Para el CTC, tomando nota del continuo déficit en los contratos de eliminación, antes de la 38ª Reunión, la Secretaría pidió que se aclarara sobre la reducción informada del consumo de CTC para el uso de solvente en 2001, que bajó a un nivel de 59,6 toneladas PAO (comparado al límite de 110 toneladas PAO). El PNUD indicó (párrafo 10 de la sección C del informe revisado) que una firma independiente de auditores realizó una segunda auditoría y confirmó un consumo informado de 20,7 toneladas PAO, tomando 34 empresas como muestra. Esta muestra era igual a la usada en el consumo de CTC nacional original del sector de solventes, en ese momento la muestra abarcó alrededor de 38,3 por ciento del consumo del subsector de CTC (empresas no identificadas y pequeñas consumen el 61,7 por ciento remanente). Cuando se amplió proporcionalmente para cubrir todo el subsector de CTC, el consumo de las muestras representó un consumo total de 59,6 toneladas PAO de CTC para el subsector en 2001. En consecuencia, se informa que se ha cumplido con el límite del consumo de CTC.

13. En lo referente al CFC-113 y TCA, el informe previo sobre la marcha de las actividades no contenía información sobre la auditoría de los límites nacionales de consumo de 2001. El informe revisado indica que, además de la Oficina Nacional de Auditoría de China, los auditores independientes también verificaron las cifras de producción, importación y exportación de CFC-113 y TCA. El PNUD indicó que las cifras de producción de CFC-113 son iguales a las informadas para el sector de producción. Las cifras de importación y exportación se obtuvieron de los registros oficiales de la aduana. Las cifras verificadas y el consumo resultante aparecen en la Tabla 3 de la página 10 del informe revisado. Las cifras informadas se encuentran todas dentro de los límites especificados en el Acuerdo.

Decisión 33/46: Producción de solvente alternativo con nPB

14. En el informe actualizado sobre la marcha de las actividades, el PNUD planteó una cuestión referente a la aplicación de la Decisión 33/46, por la cual el Comité Ejecutivo convino que $EUA 2 millones de los fondos aprobados para el programa de ejecución de 2000-2001 se podrían reasignar al desarrollo y producción locales de un solvente alternativo. El solvente alternativo contendría alrededor de 60-70 por ciento de bromuro n-propil (nPB). Este acuerdo fue hecho a condición de que China "supervisara y se asegurara de que exportaba bromuro n-propil." En los párrafos 22 y 23 de la Parte C del informe actualizado sobre la marcha de las actividades, el PNUD advirtió que no será posible que el Organismo de Protección Ambiental del Estado (SEPA) haga cumplir el control de exportación de bromuro n-propil. El PNUD

aconsejó a China que no utilice los $EUA 2 millones para producir bromuro n-propil y China pidió orientación de cómo proceder, dado que no puede aplicar todas las disposiciones de la Decisión 36/46.

15. Si el Comité Ejecutivo fuera a rescindir su aprobación de la reasignación y China devolviera los fondos para usarlos según lo propuesto en un principio en el Plan sectorial de solventes, la cuestión de los controles de exportación del bromuro n-propil no se presentaría.

Continuación del PNUD como organismo de ejecución

16. El Acuerdo especifica que el PNUD sería el organismo de ejecución durante los primeros tres años, con un honorario del 10 por ciento de los fondos asignados durante ese tiempo, conforme con las disposiciones del Acuerdo. El Comité Ejecutivo y el organismo de ejecución del proyecto deberán convenir los honorarios de los años futuros. En el informe actualizado sobre la marcha de las actividades se indica que China y el PNUD piden al Comité Ejecutivo que mantenga el PNUD como organismo de ejecución para el período restante que va de 2003 a 2010. Conforme con la Decisión 38/68, puede corresponder fijar los costos de apoyo en un nivel de 7,5 por ciento para el resto del proyecto.

Programa anual actualizado de ejecución de 2003

17. Con respecto al logro del nivel planeado de eliminación mediante contratos de reducción con empresas individuales, el PNUD advirtió en el programa anual actualizado de ejecución que "ahora se harán esfuerzos especiales para establecer contacto directo y negociaciones con los consumidores de solventes originales, identificados en las encuestas realizadas durante la preparación del Plan sectorial de eliminación, en lugar de confiar en el proceso de licitación" (párrafo 4 de la Parte II). En el párrafo 7 se indican medidas adicionales destinadas a identificar las empresas, incluyendo el uso de asociaciones industriales regionales y provinciales. China también promulgó reglamentaciones destinadas a controlar el consumo de SAO provenientes de fuentes de oferta y demanda y a prohibir el uso de CTC como solvente de limpieza a partir del 1 de junio de 2003.

18. La auditoría financiera realizada por la Oficina Nacional de Auditoría de China (CNAO) identificó un número de cuestiones administrativas que debían abordarse; no obstante lo anterior, el programa anual de 2003 no contiene información sobre las medidas que se tomarán en respuesta al informe. El PNUD advirtió que se corrigieron dos cuestiones identificadas en las conclusiones de la CNAO sobre consumo y bancarrota. El PNUD indica que las otras cuestiones financieras y de gestión relativas al uso apropiado de los fondos de FML, el ajuste oportuno de los contratos de reducción, la supervisión y gestión apropiadas de las actividades de eliminación, y la documentación adecuada sobre la destrucción de equipos, se abordarán mediante una mayor capacitación de:

a) El personal de SEPA, de las oficinas distritales de medio ambiente y de otros responsables de toma de decisiones, para que comprendan mejor las reglas del Fondo y del PNUD y consoliden su capacidad de realizar la gestión;

b) Consumidores de solventes con SAO, para que mejoren sus conocimientos de cómo participar en las actividades del sistema de contratos y comprobantes de reducción de SAO, cómo obtener financiamiento para emprender actividades de eliminación oportunas, y cómo ejercer una gestión financiera y administrativa eficaz de las actividades de eliminación y de las donaciones del FML; y

c) Grupo de trabajo de solventes y personal de organismos nacionales de ejecución, para que mejoren la supervisión, el control y la ejecución en fecha de las actividades de eliminación.

19. Para ayudar a la transparencia sobre marcha de las actividades con la ejecución respectiva, a solicitud de la Secretaría, el PNUD enmendó la Tabla que da una lista de los indicadores de desempeño para el programa anual (Tabla 11) para mostrar, además de los límites totales de consumo que se lograrán, la eliminación propuesta que se alcanzará en 2003 gracias a los contratos de reducción con empresa firmados en 2001 y 2002. Esto facilitará una comprensión del nivel de eliminación que se está logrando con actividades financiadas de conversión de empresas y de cuánto se logra mediante otras medidas, tales como reducciones no financiadas de consumo y mediante controles de la oferta.

RECOMENDACIÓN

20. A base de la información proporcionada anteriormente, el Comité Ejecutivo puede querer considerar:

a) el enfoque que desea tomar con respecto al incumplimiento del límite de 10 toneladas PAO especificado en el Acuerdo para el uso de CFC-113 como materia prima;

b) convenir la retención del PNUD como organismo de ejecución para lo que reste del proyecto, con costos de apoyo de 7,5 por ciento;

c) en base de sus puntos de vista sobre a) anterior, aprobar el financiamiento de $EUA 5 775.000 más costos de apoyo de $EUA 433 125 para el programa anual de ejecución propuesto de 2003 del Plan sectorial de solventes de China; y

d) pedir al gobierno de China que devuelva el financiamiento de $EUA 2 millones reasignado conforme a la Decisión 36/46 para las aplicaciones aprobada originalmente en el Plan sectorial de solventes.

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Annex I

SOLVENT SECTOR PLAN FOR ODS PHASE-OUT IN CHINA

2003 ANNUAL IMPLEMENTATION PROGRAMME

May 21, 2003

TABLE OF CONTENTS

PART I PROGRESS REPORT

A. INTRODUCTION

1. Solvent Sector Plan for ODS Phase out in China was approved by the Executive Committee at its 30th Meeting to phase out the consumption of CFC-113, TCA and CTC used as cleaning solvents in China by 1 January 2006, 1 January 2010 and 1 January 2004 respectively.

2. Two funding tranches in the amount of $6,750,000 and $6,955,000 were released in 2000 and 2001 for the implementation of the 2000 – 2001 First Implementation Programme. The third tranche in the amount of $6,330,000 was released in November 2002 for the implementation of the 2002 Annual Implementation Programme.

3. In accordance with the "Agreement for ODS Phaseout in China's Solvent Sector" (UNEP/OzL.Pro/ExCom/30/41 Annex IV), the Executive Committee is hereby requested by China to approve the 2003 Annual Implementation Programme and release the fourth tranche in the amount of $5,755,000 and the corresponding support fees for the implementation of the 2003 Annual Implementation Programme. With this funding tranche, China will be able to continue enterprise level phase out activities, conduct technical assistance activities and undertake policy actions to phase out solvents so that the 2004 consumption in the solvent sector will not exceed the consumption control limit of 1,602 ODP tonnes (1,100 ODP tonnes of CFC-113 and 502 ODP tonnes of TCA), and that CTC will be phased out by 1 January 2004. The 2003 Annual Implementation Programme is presented in Part II.

Table 1 Consumption Control Targets for ODS Solvents (tonnes ODP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
CFC-113	3300	2700	2200	1700	1100	550	0[1]	0[1]	0[1]	0[1]	0[1,2]
TCA	621	613	605	580	502	424	339	254	169	85	0[3]
CTC	110	110	110	55	0[1]	0[1]	0[1]	0[1]	0[1]	0[1]	0[1,2]
Total	4031	3423	2915	2335	1602	974	339	254	169	85	0

[1] save for consumption of these ODS for feedstock and process agent uses.
[2] save for any CFC-113 consumption or CTC solvent consumption that may be agreed by the Parties to be essential for China after 2010.
[3] save for any TCA solvent consumption that may be agreed by the Parties to be essential for China after 2015.

4. Through close collaboration and cooperation, SEPA and UNDP have established an excellent mechanism and procedure to operationalize the China Solvent Sector Plan. Periodic missions of UNDP technical experts and programme management staff have established excellent working relationship and partnership with the Solvent Special Working Group (SWG), Domestic Implementing Agent (DIA), FECO/SEPA and Ministry of Information Industry (MII) staff. Activities are dictated by proper and transparent procedures. To maintain the momentum of this difficult sector phase-out plan in the consuming sector, both SEPA and UNDP request the Executive Committee to retain UNDP as the implementing agency for this sector phase-out plan, for the duration of its remaining period, 2003 – 2010.

5. A 2002 Annual Progress Report was previously submitted in September 2002 to the 38th ExCom Meeting, together with a proposed implementation programme for 2003. This report updates the progress of the Sector Plan to include activities undertaken up May 2003

B. IMPLEMENTATION OF 2000 - 2001 FIRST IMPLEMENTATION PROGRAMME

1. Phase out activities at enterprise level continued in 2002. Majority of the equipment for the 16 ODS Reduction Contracts signed in November 2000 was produced, tested, delivered and commissioned at 13 of the 16 enterprises from May to December 2002 and consumption of solvents had ceased at these enterprises. One enterprise went bankrupt and has thus also ceased consumption of ODS. The completion of these 14 ODS Reduction Contracts contributed to the phase out of 340.135 ODP tonnes of CFC-113, 9.8 ODP tonnes of TCA and 8.36 ODP tonnes of CTC in 2002. Part of the equipment has been delivered, installed and commissioned in the remaining two enterprises, with the remaining equipment to be delivered and commissioned in July 2003. The completion of these two projects under the 2000 ODS Reduction Contracts will contribute the phase out of 38.4 ODP tonnes of CFC-113 and 0.4 ODP tonnes of TCA to the 2003 phase-out targets. Baseline equipment in all 16 enterprises will be destroyed following the national project acceptance procedures in August – September 2003.

2. Equipment production for the 21 winning enterprises with ODS Reduction Contracts signed in July 2001 is underway and will be ready for delivery to enterprises' sites by June 2003. Installation, commissioning and testing will follow with project completion targeted for August 2003. Independent performance verification, technical evaluation and destruction of baseline equipment will take place in August and September 2003. The completion of these 21 ODS Reduction Contracts will thus contribute to the phase-out targets in 2003, with the phase out of 541.6 ODP tonnes of CFC-113 and 10.6 ODP tonnes of TCA.

C. IMPLEMENTATION OF 2002 ANNUAL IMPLEMENTATION PROGRAMME

Enterprise-Level Phase-out Activities

1. According to the 2002 Annual Implementation Programme, China would initiate activities in 2002 to phase-out 500 ODP tonnes of CFC-113, 25 ODP tonnes of TCA and 55 ODP tonnes of CTC by the end of 2003 through ODS Reduction Contracts and Voucher System. In accordance with the Agreement, total consumption limit for 2002 was set at 2,915 ODP tonnes, consists of a maximum level of 2,200 ODP tonnes for CFC-113, 605 ODP tonnes for TCA and 110 ODP tonnes for CTC.

2. Through a bidding process, 36 enterprises submitted bids by July 2002 to participate in the 2002 ODS Reduction Contract. 35 bidders were qualified, one bid was rejected because it failed to provide valid supporting documents to verify its actual ODS consumption.

3. The 35 successful bidding enterprises would phase out 556.3 ODP tonnes of CFC-113, 48.2 ODP tonnes of TCA and 17.9 ODP tonnes of CTC. While ODS Reduction Contracts could be awarded in August 2002, in compliance with ExCom Decisions 36/50 and 37/22 which decided that "no disbursement would occur until the required information on the use of carbon tetrachloride as a process agent (for the year 2000) has been provided" by China to the Executive Committee, UNDP did not authorized the signature of the 35 ODS Reduction Contracts until December 2002 upon approval by ExCom Decision 38/62 for UNDP to release the 2002 funding.

4. Because SEPA could not sign the ODS Reduction Contracts in August 2002, 3 of the 35 successful enterprises did not want to wait and decided to proceed immediately to phase out with its own funding first. As a result, only 32 ODS Reduction Contracts were signed in December 2002 to phase out 535.8 ODP tonnes of CFC-113, 43.2 ODP tonnes of TCA and 17.9 ODP tonnes of CTC, at the equivalent US dollar amount of $4,003,881.60. The three enterprises that proceeded to phase out on its own effort will be reimbursed through retroactive reimbursement mechanism.

5. Technical specifications of equipment for the 32 enterprises have been completed and Procurement Notices were posted in April 2003 to invite potential bidders to participate in the international competitive bidding process. Bidding process will begin in May 2003 and contracts will be awarded in August 2003. The late release of the 2002 funding to China in November 2002 for the implementation of the 2002 Annual Implementation Programme will mean that phase-out activities will not be completed by end of 2003, thus phase-out can only be achieved in 2004, contributing only to the 2004 phase-out targets and consumption limits.

6. From the number of bidding document purchased during the bidding process, it can be foreseen that the phase-out activities may start to face a complicated situation. Some of the enterprises are not eligible to participate in the phase-out activity as they were established after July 25, 1995. Some enterprises consider the bidding procedure too complicated for the limited amount of grant they would receive and refused to participate in the bidding process, hence it may result in some of these enterprises prepare to phase-out at their own costs. Some enterprises are still hesitating to participate. In addition, some enterprises are not aware of the phase-out activities because of their remote locations. These ODS consuming enterprises are so scattered around that it is difficult for the SWG to find them.

7. To address the potential difficulty in attracting bidders to participate in the ODS reduction contract, other than intensifying its effort in the phase-out activities, China would promulgate regulation of issuing ODS Solvent Consuming Certificate to control ODS consumption from ODS production sources. Such regulation on issuance of ODS Solvent Consuming Certificate had been issued jointly by SEPA and MII in June 2002. In addition, starting 2003, China will locate and solicit enterprises through direct contacts to participate in phase-out activities, rather than through a competitive bidding process only.

8. The signing of the 2000, 2001 and 2002 ODS Reduction Contracts, as summarized below, will lead to the phase-out of sufficient solvents consumption to meet the annual reduction targets and the maximum consumption levels stipulated in the Agreement:

Table 2: Phase-out of 2000 – 2002 ODS Reduction Contracts

		CFC-113		TCA		CTC		No. of Enterprises	Funding (US$ 1,000)
		ODS tons	ODP tons	ODS tons	ODP tons	ODS tons	ODP tons		
2000 Bidding	Planned	466	372.8	100	10	0	0	10 – 20	$5,000
	Executed	473	378.5	101.6	10.2	7.6	8.36	16	$4,132
2001 Bidding	Planned	655	524	100	10	0	0	10 – 20	$5,505
	Executed	677	541.6	106.0	10.6	0	0	21	$4,361
2002 Bidding	Planned	625	500	250	25	50	55	20 - 40	$5,830
	Executed	669.8	535.8	431.9	43.2	16.31	17.9	32	$4,004
Three Year Cumulative Total	Planned	1,746	1,396.8	450	45	50	55	40 – 80	$16,335
	Executed	1,819.9	1,455.9	639.5	64.0	23.91	26.3	69	$12,497

9. With the exception of CTC, the quantities of phase-out under the 2002 ODS Reduction Contracts will exceed the targets set for CFC-113 and TCA. For CTC, the phase out quantity under the 2002 ODS Reduction Contracts will have a short fall of 37 ODP tonnes. For the three-year cumulative of 2000 – 2002, there is a net short fall of 28.7 ODP tonnes.

10. In order to verify the national CTC consumption level, in addition to the performance audit already undertaken by the China National Audit Office (CNAO) from June to August 2002, SEPA and UNDP commissioned a second independent verification audit by another independent auditing firm, Beijing Zhong Tian Hua Zheng Certified Public Accountants Co. Ltd. The second audit took place in January 2003 with the aim to verify: a) the 2000 and 2001 consumption of CTC by the 34 enterprises originally identified during the preparation of the China Sector Phase-out Plan, and b) the national production level of TCA in 2000 and 2001. The finding of the second audit verified that the consumption of CTC for solvent use by these 34 enterprises were 9.07 MT in 2000 and 20.74 MT in 2001, as compared to the consumption of 38.3 MT identified in 1998. As these 34 enterprises represented 38.3% of the 1998 national consumption, by extrapolation, the national consumption of CTC in 2000 and 2001 would be 26 and 59.6 ODP tonnes respectively. Therefore even without signing sufficient phase out tonnage in 2002, SEPA and UNDP are confident that CTC consumption for 2002 will be well below the limit of 110 ODP tonnes.

11. Furthermore, through field investigations, SEPA found that very few enterprises are using CTC as cleaning solvent. It is believed that many of the CTC consuming enterprises have already phased out the use of CTC at its own cost, either as a result of the policies imposed on ODS use or through market force. This reduction is collaborated by the finding of the second audit that confirmed the much lower level of CTC consumption at the 34 enterprises identified in the original survey. As the remaining 61.7% of unidentified CTC consumers in the original survey were mainly small-size users, their consumption can be controlled through the

distribution channels. SEPA had formulated legislation to ban CTC for solvent use, to take effect 1 June 2003, it is therefore certain that consumption of CTC as cleaning solvent will be phased out by 1 January 2004, as stipulated in the Agreement.

Technical Assistance (TA) Activities

12. **Training Activities.** Training activities were conducted in Amoy in January 2002, in Beijing in February and April 2002 for over 200 participants from the candidate enterprises for the 2002 bidding. Training programme includes:

- Introduction of Solvent Sector Plan and its execution modality;
- Preparation of bid proposal and how the bidding will be executed;
- Introduction by technical experts on alternative technologies;
- Exchange and discussion between technical experts and enterprises.

13. A Training Workshop by international experts was conducted in Xian in August 2002 for over 100 national experts and enterprise technicians to provide the participants with:

- Alternative cleaning process/technologies;
- Available alternative solvents;
- Retrofit of equipment to non-ODS cleaning applications

14. **Public Awareness & Promotion.** The event of issuing the Notice on ODS Solvent Usage Certificate was publicized by China Environment Protection Daily on June 27, 2002. The event of International Seminar and Training on Solvent Technology was reported and publicized by China Daily on August 15, 2002. Currently the overall promotion plan for the Solvent Sector Plan is under review by FECO/SEPA and will be implemented upon approval by FECO/SEPA. The promotion will include raising public awareness in trade journals, publications, newspaper, news media, Radio and TV.

15. **Strengthening of Alternative Technology Support System (ATSS).** To strengthen the ATSS, SWG started to identify all capable institutes or experts in the country to participate in the ATSS. To-date, a total of 33 application forms have been received, upon completion of a qualifying and approval process by SWG and FECO/SEPA, the ATSS will be further strengthened and appropriate training will be conducted for these newly identified institutes and experts.

16. To further build up the capacity of the national experts, an international seminar on alternative cleaning solvents and technologies were held in Xian, attended by 100 national experts and technicians from the various ODS consuming enterprises. Discussions and exchanges were made between the international and national experts, to learn from each other's experience and knowledge.

17. With cooperation of MII, the third Technology Center has been established at the Fifth Research Institute in Guangzhou, Guangdong Province, relevant work has been started and

capacity strengthened to provide technical assistance to the enterprises in various sub-sectors in the overall capability of measuring, testing and technical services to ensure smooth execution of the Solvent Sector Plan.

18. **Solvent Sector Management Information System (SSMIS).** The development of the SSMIS has been basically completed end of July 2002. The SSMIS is now operational and will form an integral part of the overall Management Information System, covering all sector plans approved and being implemented and will offer a useful integrated database.

19. **Development and Investment of Alternative Solvents Production.** China realizes that the most important challenge for a successful and smooth phase out in the solvent sector is the sufficient availability of good quality, workplace safe alternatives at reasonable low price. At present, China imports most of the alternative solvents at a very high price which is a major obstacle to getting the interest of enterprises to participate in phase out activities. Some local enterprises have embarked on the development and production of alternative solvents and equipment. SEPA strongly believes that one important activity in the successful implementation of the Solvent Sector Plan is to assist these local enterprises in the development of these alternative solvents that are identified to be of good potential substitutes and to provide investment in building up their production capacity in order to provide sufficient local supply to current ODS solvent consumers.

20. To ensure that non-ODS cleaning technologies are appropriate for various cleaning applications and that cleanliness requirements and production capacity can be maintained, experiments on alternative technologies and production-scale tests have been carried out in LCD and electronic vacuum sectors. Studies on alternative equipment and appraisal on economic impacts of alternative technologies were also carried out.

21. A comprehensive strategy on alternative solvents is being developed. Investigations on current situation, the development trend and anticipated demand on solvent alternatives, alternative cleaning technologies and products are being conducted. A comprehensive economic and technical impact analysis will be carried out to assess benefits and costs to the affected industrial sectors and the country as a whole. Based on these findings, a national strategy on alternative development during the compliance period and post-2010 will be finalized.

22. To meet the requirement of the development and production of alternative solvents, savings of $2 million from the bidding process for the 2000 and 2001 ODS Reduction Contracts has been reallocated to the development and production of alternative solvents, including two locally produced alternative solvents, HEP-2 and HT-1. HEP-2 is a chemical mixture, containing 60 – 70% of n-propyl bromide (nPB). In view of Decision 33/46 taken by the Executive Committee in restricting China to export nPB, in approving China's request to amend the 2000-2001 work programme to reallocate $2 million savings to the local development and production of alternative solvents, including HEP-2, China has undertaken no actual activity or incurred any expenditure in the development and production of HEP-2 up to now. China has also been advised by UNDP not to use the $2 million to produce HEP-2.

23. While SEPA is able to control the export of HEP-2 developed and produced with MLF funding, it will not be possible for SEPA to enforce export control of nPB, especially for those producers who have no connection with ODS phase-out or have not received any financial assistance from the MLF. China therefore seeks the guidance on how to proceed as the conditions in ExCom Decision 33/46 cannot be actually implemented by SEPA as they are written. Plan for the development and production of other alternative solvents will proceed and has been included in the recently inaugurated Industrial Park for Implementation of Multilateral Environmental Agreements located in Langfang Economic Development Zone in Hebei Province outside Beijing.

Policy Measures

24. Throughout the period of the 2000 – 2002, China has initiated and effectively implemented policy actions to facilitate ODS phase-out. In order to control ODS production and selling situation, FECO/SEPA, jointly with the Ministry of Information Industry (MII), issued on June 20, 2002 the "Notice of Issuing Execution Methods on Issuing Usage Certificate on Selling ODS Products". The main contents of the Notice covers the following:

- From July 15, 2002 all those who are producing CFC-113, TCA and CTC for solvent use (ODS) must strictly produce the ODS against the production quota of the year. The ODS producing factories must sell ODS products against the buyer showing their ODS Usage Certificate issued by FECO/SEPA, according to the quantity and solvent indicated. Otherwise, their production quota will be revoked.

- From July 15, 2002 all ODS consumers must apply to FECO/SEPA's designated unit to obtain the ODS Usage Certificate.

- According to the operational procedures, the responsibility of issuing the ODS Usage Certificates has been assigned to China Cleaning Engineering Technique Cooperation Association (CCETCA). From August 9, 2002 up to December 2002, CCETCA has issued such ODS Usage Certificates to 199 enterprises at all production levels. In addition, The Notice also requires ODS producing factories, distributors and importers to report to CCETCA information on their ODS production, sales, consumption and name of users.

25. SEPA also issued a circular to ban the use of CTC as cleaning solvent, the ban will take effect 1 June 2003. Enterprises, environmental protection and other related units who violate the rules and regulations will be subject to harsh penalties. With this ban, China will therefore be able to meet the 2003 phase out target and will effectively phase out the use of CTC as cleaning solvent by 1 January 2004, as stipulated in the Agreement.

D. 2001 CONSUMPTION TARGETS AND LIMITS

Performance Audits

1. Based on official data and statistics on China chemical production and import & export obtained by SEPA, the total domestic consumption of CFC-113, TCA and CTC in 2001 has met the consumption control targets specified in Table a of the Agreement. Solvent consumption in 2001 is presented in Table 3 below. Consumption was determined in accordance with the Executive Committee approval condition as total annual production plus imports, minus exports. CFC production figures reported are identical to the audited data reported in the CFC Production Sector Plan presented to the Executive Committee by the World Bank. Import and export data are those obtained from official customs records and confirmed by the independent audit by CNAO. Phase-out in 2001 was achieved through the completion of individual investment projects, phase out achieved at enterprises that undertook phase-out at their own cost, and through quota imposed on CFC-113 production. While annual usage of CTC all over China is around 60,000 MT, the consumption of CTC as cleaning solvent in 2001, calculated and verified based on audited data obtained by a second independent audit, as explained in Section C paragraph 9 above, was determined to be 59.6 ODP tonnes, well below the 110 ODP tonnes limit.

Table 3: ODS Solvent Consumption for the Year 2001 unit: ton

	CFC-113		TCA		CTC		TOTAL
	ODS	ODP	ODS	ODP	ODS	ODP	ODP
Consumption Control Target	3,375	2,700	6,130	613	100	110	3,423
Production	4,194.39		974.26				
Import	0		3,602				
Export	32		1				
Raw Material Usage	819.40		-				
Solvent Consumption	3,342.99	2,674.4	4,575.26	457.5	<100	<110	3,241.9

2. The Foreign Funds Application Audit Department of the China National Audit Office (CNAO) was commissioned by SEPA and UNDP to verify the 2001 national consumption level in the solvent sector. CNAO confirmed that the 2001 CFC-113 production data and raw material usage was the exact same data that has already been audited and confirmed by the CNAO during its annual performance audit of CFC Production Sector Plan and reported by the World Bank to the ExCom. CNAO also verified the 2001 import and export data for CFC-113, TCA and CTC against records of the Data Centre of the General Administration of the Customs. Based on the ExCom approval condition of "Production" plus "Import" minus "Export" equals Consumption, the 2001 national CFC-113 consumption, the import and export figures of CFC-113 and TCA for 2001 were therefore all confirmed by the independent audit performed by CNAO.

3. Subsequent to the CNAO audit, additional performance audit by a commercial auditing company, Beijing Zhong Tian Hua Zheng Certified Public Accountants Co. Ltd., was

commissioned by SEPA and UNDP to verify the 2001 national production level of TCA and CTC consumption as solvents in the 34 enterprises previously identified as CTC consumers in the Solvent Sector Plan. This additional performance audit was carried out in January 2003.

4. The audit report of Zhong Tian Hua Zheng Certified Public Accountants Co. Ltd. verified the 2001 TCA national production at 974.26 MT. Together with the verification of the import and export quantities of TCA that were already confirmed in the CNAO independent audit report, the 2001 national TCA consumption was therefore verified as 457.5 ODP tonnes, well below the national consumption limit of 613 ODP tonnes stipulated in the Agreement.

5. In addition, the audit report of Zhong Tian Hua Zheng also confirmed the consumption of CTC in the 34 enterprises originally identified in the Solvent Sector Plan at 20.74 MT (22.8 ODP tonnes) for 2001. Since these 34 enterprises accounted for 38.3% of the national consumption, the total national consumption can be extrapolated to be 59.6 ODP tonnes for 2001. As the remaining 61.7% were consumed by small consumers, their consumption could not be increased substantially, it can therefore be quite certain to conclude that the 2001 national consumption of CTC was well below the 110 ODP tonnes limit, as validated in the independent audit.

6. The combined results of these two independent performance audits therefore confirmed all the data presented in Table 3 above. China has therefore met the reduction targets on the three chemicals as well as the overall consumption limits for the year 2001.

7. SEPA and UNDP will commission independent performance audit on the 2002 consumption targets and limits, to be carried out August-September 2003, for reporting to the 41st Executive Committee Meeting. Data reporting for the 2002 consumption of CFC-113 and CTC as exempted feedstock and process agent use will also be reported at the same ExCom Meeting.

8. According to the phase-out schedule, China is required to reduce a total of 508 ODP tonnes in 2002, from the 2001 consumption target of 3,423 ODP tonnes to 2,915 ODP tonnes in 2002. Since the 2001 consumption level had already been reduced to 3,241.9 ODP tonnes, as reflected in Table 3, a reduction of 326.9 ODP tonnes in 2002 is required to achieve the consumption control target. It is expected that China will meet its 2002 phase-out targets and consumption limits.

Annual Management and Financial Audit

9. In addition to the commissioning of performance audits, since 2001, UNDP has included the China Solvent Sector Plan project in its regular annual management and financial audit that was also conducted independently by CNAO. The audit was conducted in conformity with the provisions of the project document, International Generally Accepted Auditing Standards, relevant Chinese auditing standards and the principles and procedures prescribed for the United Nations with respect to funds obtained from or through UNDP. The audit included examination of accounting records, tests of internal control systems and other procedures considered necessary for due performance of this audit. Opinion is expressed by the National Auditors on:

(a) Financial operations and controls
(b) Adequacy of the management structure
(c) Equipment use and control
(d) Monitoring, evaluation and reporting
(e) Project execution rate

Data Reporting on Feedstock and Process Agent Use

10. In accordance with paragraph c of the Agreement, a list of name of enterprises and the quantities purchased for the year 2001 of CFC-113 and CTC for exempted feedstock use, for process agent use and for other applications not yet approved as ODS process agent in Decision X/14 of the Parties are presented in Table 4, 5 and 6 below. The consumption reported in these tables are the identical to those reported b y the World Bank for the CFC Production Sector, except as noted.

Table 4 Name List and Quantity of CFC-113 & CTC for Feedstock Use in 2001

Name of Enterprise	CFC-113 for Exempted Feedstock Use (MT)	CTC for Exempted Feedstock Use (MT)
Changshu 3 F Chemical Industry Co. Ltd.	86 (for CFC-115)	
	526 (for CFC-113a)	
Zhejiang Chemical Industry Research Institute	207 (for CFC-114 & 115)	
Juhua Fluoro-Chemical Co. Ltd.		16,428.9
Dongyang Chemical Plant		3,010.5
Linhai Limin Chemical Plant		1,970.4
Guangdong Xiangsheng Chemical Co. Ltd.		1,507.8
Jiangsu Meilan Electro-Chemical Plant		3,773.7
Jiangsu Changsu 3 F Refrigerant Co. Ltd.		17,417
Total	819	44,108.3
Limit in Agreement	12.5 (10 ODP MT)	60,000 (66,000 ODP MT)

11. It is noted that, as reported in the World Bank 2001 Verification Report of the CFC Production Phase-out Programme, CFC-113 production by Jiangsu Changsu 3F Refrigerant Co. Ltd. of 4,194.4 MT, included 819.4 MT used in chemical conversion in the following applications:

- Production of CFC-115 by Jiangsu Changsu 3F
- Production of non-CFC products within the enterprise
- Production of CFC-114/115 by Zhejiang Chemical
- Production of Zhejiang Chemical other non-CFC products

12. All of the above-mentioned applications have been verified, therefore the report concluded that the total CFC-113 production was 3,375 MT as ODS. The 819.4 MT CFC-113 was chemically converted to CFC-114/115, CTFE or CFC-113a, and is not counted as feedstock.

Table 5 Name List and Quantity of CTC for Process Agent Use in 2001

Name of Enterprise	Quantity (MT)
Shenyang Chemical Co. Ltd.	74.62
Shanghai Chlor Alkali Chemical Co. Ltd.	147.45
Shangyu Qiming Chemical Co. Ltd.	151.7
Jiangyin Fasten Co. Ltd.	150.44
Shouchang Chemical Ltd.	56
Sichuan Longchang Chemical Co. Ltd.	126
Zhejiang Longyou Lude Pesticide Chemical Co. Ltd.	41.48
Wuxi Chemical Group Co. Ltd.	122.97
Huanghua City Jinhua Chemicals Co. Ltd.	289.7
Henan Puyang Oilfield CR Factory	140
Guangzhou Haotian Chemical Co. Ltd.	173.91
Zhejiang Xinan Chemicals Group Co. Ltd.	173.29
Luzhou Longmatanqu Hongyuan Chemicals Factory	16.09
Dalian City Jianxi Chemical Industrial Head Co.	332.3
Harbin Yibin Chemicals Industrial Co. Ltd.	37.55
Jilin Chemical Industrial Company	1,063.17
Zhejiang Huahai Pharmaceuticals	25.92
Total	3,122.59
Limit as per Agreement	5,000 (5,500 ODP MT)

Table 6 Plants using CTC in other applications not yet approved as ODS process agent in 2001

Name of Plant	Quantity (MT)
Guangdong Yangchun Gangli Chemical Co. Ltd.	435
Guangzhou Jingzhujiang Chemical Co. Ltd.	733
Suzhou Xianke Chemical Co. Ltd.	178
Jiangsu Agro-Chemical Co. Ltd.	0
Jiangyin 2nd Pesticide Co. Ltd.	0
Shanghai Dongfeng Pesticide Factory	15.3
Hainan Pesticide Factory	0
Jiangsu Anbang Electrochemicalo Co. Ltd.	270
Jiangsu Dongtai Agro-Chemical Factory	0
Jiangsu Chanzhou Pesticide Factory	509.3
Chongqing Changfeng Chemical Factory	125
Jiangsu Wuxian Pesticide Factory	100
Nanjing 1st Pesticide Factory (Red Sun Group)	76.7
Jiangsu Pesticide Research Institute, Nanjing Pesticide Factory	30
Jiangsu Yangnong Chemical Group Co. Ltd.	80
Chanzhou Xinhua Industry General Co.	0
Sharonda (Jingzhou) Chemical Co. Ltd.	0
Hunan Linxiang Amino-Chemical Factory	165
Shandong Huayang Agro-Chemical Group Co. Ltd.	115
Hunan Haili Chemical Co. Ltd.	366.4
Jingjiang Pesticide Factory	0
Jingjiang City Jinguo Agro-Chemical Co. Ltd.	1.5
Liyang City Guanghua Chemical Industry Co. Ltd.	169.2
Liyang City Xinhai Chemistry Plant	117.9
Shanghai Fengjiang White Ant Prevention and Cure Materials Co. ltd.	16
Shanghai Qiming Chemical Industry Co. Ltd.	0
Jiangsu Chemical Industry Pesticide Group Co. Ltd.	493
Changzhou Yekang Chemical Products Co. Ltd.	45
Suzhou Jiangfeng White Ant Prevention and Cure Materials Co. Ltd.	19
Jintan City Shuibei White Ant Prevention and Cure Materials Factory	13
Total	4,073.3

13. The name list of enterprises and quantities of CTC consumed as other application shown in Table 6 above reflected the results of an actual survey undertaken by SEPA in February – May

2003. It is different from the 6,547 MT reported in Table 1 of the World Bank's report entitled "China: Process Agents Sector Plan – Compliance Scenario," the 6,547 MT was only an estimated figure.

14. The total quantities of 51,304.2 MT (56,434.6 ODP tonnes) of CTC for feedstock, process agent and other applications not yet approved as ODS process agent uses in 2001 are below the 65,000 MT (71,500 ODP tonnes) limits, as specified in paragraph c of the Agreement.

Independent Technical Audit by UNDP

15. In addition to the performance and financial audits undertaken by China National Audit Office and Zhong Tian Hua Zheng Certified Public Accountants Co. Ltd., UNDP also commissioned international and national solvent sector experts to carry out independent technical audits in August 2002 and February 2003 to 14 of the 16 recipient enterprises who had their equipment installed, commissioned and eliminated the consumption of ODS solvents. The technical audits reviewed the ODS cleaning applications, the quantity of ODS consumption, the alternative solvents, the new non-ODS cleaning equipment installed and commissioned, and the fate of the baseline equipment.

16. The technical audit concluded that the projects showed a high quality of engineering effort, good competency in designing the projects, strong skills in the manufacturing and installation of the cleaning equipment and process and in general good understanding of the issues associated with the operation of the new processes. The enterprises pointed out the need for the new solvent supplier (locally produced HEP-2) to supply better information on the use and disposal of this nPB-containing product.

17. The equipment suppliers are making a strong effort to meet the specifications, and that there is sufficient engineering support to assure a relatively smooth start-up. The factories that are recipients of these sub-projects are committed to making the phase-out successful in their particular site, and they all have worked well with the equipment suppliers to adjust the basic specifications and include some very good ideas to improve performance and safety in loading and operating the equipment.

18. In general, the alternative solvent works very well and the equipment all work acceptably. Cleanliness requirements, based on visual examination, were equal or better than the system that was replaced. While the baseline equipment has not been destroyed, but in storage waiting for SEPA and UNDP officials to witness the destruction, they have now operating with non-ODS cleaning application, ODS consumption has been phased out.

PART II 2003 ANNUAL IMPLEMENTING PROGRAMME

Phase out Objectives

1. The phase-out target of the 2003 Annual Implementation Programme is to reduce national solvents consumption from the maximum level of 2,335 ODP tonnes in 2003 to 1,602 ODP tonnes in 2004. Individually, CFC-113 will be reduced by 600 ODP tonnes, from 1,700 ODP tonnes to 1,100 ODP tonnes, TCA by 78 ODP tonnes, from 580 ODP tonnes to 502 ODP tonnes, with CTC totally phased out by 1 January 2004.

2. China is requesting the release of the fourth tranche in the amount of US$5,755,000 and the corresponding support fees for the 2003 Annual Implementation Programme to undertake the following activities:

a. Through direct contact, identify and solicit enterprise participation in ODS Reduction Contract and experimental Voucher System to realize the phase out at the end of 2004;
b. Through retroactive reimbursement mechanism, identify and record phase out achieved by enterprises that initiated phase-out activities at their own costs;
c. Further strengthening and optimization of the Alternative Technology Support System (ATSS) and implementation mechanism to bring project completion back to the original target of 12-18 month;
d. Continue technical assistance and strengthen training to potential and successful enterprises proper financial and administrative management; and
e. Continue formulation of related policies to enforce and sustain phase-out.

3. $5,155,000 will be used to carry out enterprise-level phase-out activities and $600,000 will be used to conduct technical assistance activities and formulate policy measures.

Enterprise-Level Phase-out Activities

4. Enterprise level activities will continue to focus on the challenge of identifying, funding and implementing phase-out activities with large and medium size enterprises through ODS Reduction Contracts and small size projects with small solvent consuming enterprises through Voucher System, or through reimbursement mechanism to phase out sufficient quantity of consumption to achieve reduction at the end of 2004. Project identification will be carried out in several ways, with close cooperation of provincial and city level industrial associations, equipment manufacturers and solvent dealers. Principal focus will be the use of local resources including the Solvent Special Working Group (SWG), Domestic Implementing Agent (DIA), Ministry of Information Industry (MII) and ATSS agencies. As indicated in the 2002 Progress Report, it has been increasing difficult to attract enterprises to participate in the phase out activities through the bidding process, special efforts will now be focused on direct contact and negotiation with the original solvent consumers identified in the surveys during the preparation of the Sector Phase out Plan, instead of relying on the bidding process.

5. The following activities will be carried out in 2003:

(a) Complete implementation of the two enterprises under the 2000 ODS Reduction Contracts.

(b) Complete implementation of 21 ODS Reduction Contracts signed in 2001 and continue implementation of the 32 ODS Reduction Contracts signed in December 2002, to contribute to achieving the 2003 and 2004 consumption limits of CFC-113, TCA and CTC;

(c) Through direct contact and negotiation with enterprises, or reimbursement mechanism, sign up about 20 - 40 ODS Reduction Contracts and issue vouchers to about 100 SMEs so as to achieve reduction at the end of 2004, meeting the consumption limit for 2004.

(d) Identify and record phase out achieved or to be achieved by enterprises that initiated phase-out activities at their own costs, and provide retroactive reimbursement to those eligible for funding.

6. Projects to be commenced in 2003 will require that ODS Reduction Contracts be signed latest by August 2003 and vouchers be issued by October 2003. Project Management Office (PMO) of SEPA will undertake planning action to identify enterprise participation and negotiate these contracts and vouchers starting second quarter 2003.

7. While SEPA and UNDP have expressed concerns that phase-out activities in the solvent sector may start to face difficulty in attracting sufficient enterprises to participate in the phase-out activity, SEPA and UNDP will intensify efforts in the identification of enterprises through industrial associations, regional and provincial institutions, and through promotional and public awareness events to attract potential enterprises. Direct contact and negotiation will also be carried out with enterprises originally identified in the surveys during the preparation of the Sector Plan, leading to their participation in the phase-out activities, rather than relying on the bidding process. UNDP has decided to outpost the staff responsible for the management of the China Solvent Sector Plan to China, to achieve closer cooperation and collaboration with SEPA In addition, China has also promulgated regulation of issuing ODS Solvent Consuming Certificate to control ODS consumption from both ODS supply and demand sources and circular to ban CTC used as cleaning solvent effective 1 June 2003.

8. Furthermore, since the inception of the Solvent Sector Plan, and in close coordination with the CFC Production Sector Plan, China has taken step to impose quota on the production of CFC-113 to the control target level. All these steps and actions will therefore ensure that China will be able to meet its annual control targets as stipulated in the Agreement.

Policy Actions

9. Starting 2003, SEPA will limit production of CFC-113 and CTC to the maximum level just sufficient to cover the limits for solvent, feedstock and process agent uses. For TCA, the quantity of production and import will also be controlled.

10. The following activities will also be undertaken to establish relevant policies and relevant solvent standards:

- Promulgate the Ban on Usage of CTC as cleaning solvent, to take effect mid 2003.
- Promulgate relevant sub-sector policies for stopping OD solvent usage.
- Continue to establish relevant solvent standards and technical norms.

11. Together with enterprise level phase-out activities, the necessary technical assistance activities and the policy framework, the combined actions will facilitate the smooth and orderly phase-out of solvent consumption to achieve the phase-out targets stipulated in the Agreement. It is note that the consumption of CTC as cleaning solvent will be completely phased out by 2004.

Technical Assistance (TA) Activities

12. The objectives of the TA activities will be to:

- strengthen the overall institutional framework;
- improve the management, monitoring and evaluation capabilities of participating institutions;
- through training, strengthen enterprise managers and technical personnel on effective financial and administrative management;
- training of decision-makers at various level; and
- strengthen the Alternative Technology Support System
- formulation of Standards and Technical Specifications
-Promote public awareness campaigns

13. The main TA activities to be carried out in 2003 include:

- *Start integration of the Solvent Sector Management Information System (SSMIS)* for ODS phase out in the solvent sector with the ODS MIS System of FECO/SEPA to form a comprehensive and coordinated database of ODS phase out in all sectors;

- *Public Awareness Campaigns* to introduce and publicize country-wide the Solvent Sector Plan and ODS solvent phase-out schedule in newspaper and other media to attract participation in phase-out activities;

- *Training of personnel involved in the implementation of phase-out activities* for 1) environmental staff and decision makers to increase their recognition and management capacity; 2) industrial managers and technicians to enhance their understanding of

alternative technology and to master how to apply the new technology; 3) ODS and substitute solvent dealers to deliver information on updated non-ODS solvent technology to their users; 4) ODS solvent consumers on how to participate in activities of the ODS Reduction Contract and voucher system, to obtain funding to undertake timely phase-out activities, and to exercise effective financial and administrative management of phase-out activities and MLF grants, and 5) SWG and DIA on effective supervision, monitoring and timely implementation of phase-out activities. The training will therefore address the administrative issues raised in the CNAO audit report on appropriate use of MLF fund and proper management of phase-out projects;

- *Strengthen the Alternative Technology Support System (ATSS)* to better resolve the alternative technology issues and to provide sufficient support on the selection of appropriate alternative technology options and its subsequent implementation;

- To address the demand of alternative substitute after 2010. Essential and necessary usage in the solvent sector will be investigated.

- *Establish standards and technical norms*: Terms of Reference will be finalized by the end of May 2003. As this work involves many areas, in 2003, it will continue to carry on the work and scope initiated in the First Annual Implementation Programme and to expand to other areas;

- *Recruit necessary national and international consultants* to provide technical services for training and technical conversion guidance to ODS solvent users, SWG, DIA and procurement agency.

- *Support the usage of Alternative Solvents.* In order to ensure the result of the investment projects and avoid the enterprises to revert to ODS use after completion of project, to encourage enterprises to choose ODS substitute solvents and to promote the use of ODS substitute solvent; it would be really important to make available relevant ODS substitute solvent at acceptable market price and to ensure a certain and larger market share of the substitutes for the suppliers/distributors of alternative solvents. As the price of the substitutes are relatively high, it is necessary to use the $2 million savings to compensate enterprises with IOC, or through a subsidize scheme, to bring the price of alternative solvents to an acceptable level.

Table 7 Consumption Targets under the 2003 Annual Implementation Programme

Targets				
Indicators		2002 (Preceding Year) ODP Tonnes	2003 (Year of Programme) ODP Tonnes	Reduction ODP Tonnes
Consumption	CFC-113	2,200	1,700	500
	TCA	605	580	25
	CTC	110	55	55
	Total	2,915	2,335	580

Table 8 Enterprise Level Activities

ENTERPRISE-LEVEL ACTIVITIES					
	Estimated MLF US$ million requested	No. of enterprises targeted	Phased Out in 2003 (ODP Tonnes)	Key Actions Required	Key Dates
1. Complete implementation of two 2000 ODS Reduction Contracts	N/a	2	38.4 (CFC-113) 0.4 (TCA)	Project completion and destruction of baseline equipment	June – September 2003
2. Complete 2001 ODS Reduction Contracts	N/a	21	541.6 (CFC-113) 10.6 (TCA)	1. Project completion and destruction of baseline equipment	June-Sept. 2003
2. Implementation of 2002 ODS Reduction Contracts		32	n/a (phase out to be achieved in 2004)	2. Equipment procurement, installation, commissioning and destruction of baseline equipment	March 2003 – June 2004
3. Conversion of ODS Consuming Enterprises under 2003 Annual Implementation Programme	CFC-113 $3.500 TCA $1.455 CTC $0.200	L/M-size: 20 - 40 Small-size: 100		1. Sign 20 – 40 ODS Reduction Contracts, reimbursement mechanism, and self phase out activities 2. Issuing vouchers to about 100 small users	Contracts signed by the end of August 2003; Vouchers issued by end of October 2003.

Table 9 Government Action

POLICY INITIATIVES		
Activities	Actions Required	Key Dates
1. Final Notice on banning use of CTC as cleaning solvent	- Final Notice on banning use of CTC as cleaning solvent	Ban to take effect June 2003.
2. Prepare and draft Notice on self-phase out of OD solvent for enterprises not cover by MLF grant	- Consult and discuss with relevant industrial associations; - Study and determine the feasibility of promulgation and implementation of such policies; - Prepare and draft a policy.	- By beginning of 2003; - Second half of 2003.
3. Limit production quantity of CFC-113, TCA and CTC up to the total limit for solvent, feedstock and process agent use	Production quota issued to match the quantity required for solvent, feedstock and process agent use, as stipulated in Agreement	Finalized early 2003 to take effect mid 2003
4. Control quantity of TCA imported for solvent use	Import quota issued by Import/Export Office	Effective Mid 2003

Table 10 Technical Assistance Activities

TECHNICAL ASSISTANCE ACTIVITIES			
Activities	MLF Funding Requested (US$1,000)	Actions Required	Key Dates
a. Public Awareness	200	Promote public awareness of enterprises on ODS solvent sector phase-out activities 1. International Forum and Exhibition on Solvent 2. Web-site construction 3. Journal and Newsletter 4 .Newspaper 5."9' 16" activities	From beginning of 2003
b. Training	120	1. Training Material Compilation for training mission 2. Training Workshop for technical personnel 3. Training Strategy for Local Authorities (by UNEP) 4. Training on Voucher System	1. Start no later than April 2003 2. Start no later than October 2003
c. Strengthening ATSS	50	Conduct training and exchanges	June 2003
d. Establishment of standards and technical norms	100	By Qualified Institutions	Start in January 2003
e. National & International Consultants	80		January – December 2003
f. Other TA	50	Investigation for necessary usage	Start no later than June 2003
Total 2003 TA Activities	600		

Table 11. Implementation Programme – Performance Indicators
(January 1, 2003 – December 31, 2003)

Solvent Phase-out Targets				
Solvent sub-sector	Start of programme (ODP MT)	Reduction Target (ODP MT)	End of programme (ODP MT)	Indicators to be reported on in semi-annual progress reports. Verified in annual performance audits
CFC-113 Imports/exports	0	0	0	Ban on exports and imports in 2003
Phase-out achieved: CFC-113 TCA CTC 	 2,200 605 110	 38.4 541.6 580 0.4 10.6 14.0 25 55 55	 1,620 580 55	 From two 2000 ODS Reduction Contracts From completion of 2001 ODS Reduction Contracts From two 2000 ODS Reduction Contracts From completion of 2001 ODS Reduction Contracts From retroactive reimbursement and policy measures From retroactive reimbursement and policy measures
Phase-out targets: CFC-113 TCA CTC	 2,200 605 110	 500 25 55	 1,700 580 55	Consumption levels will be dictated by domestic production. Reduction by end 2003 to be achieved by ODS Reduction Contracts, vouchers and reimbursement mechanism in 2003
2003 ODS Reduction Contracts, Voucher Redeemed and Retroactive Reimbursement.		L/M 20-40 SMEs 100		Number of contract signed. Number of voucher issued.
Support on usage of alternative solvents				Compensation or subsidy on alternative solvents identified and agreements signed

Policy and TA Initiatives	
Initiatives	Indicators to be reported on in semi-annual progress reports
1. Direct Negotiation with enterprise and Experimental Voucher System	- Experts/Enterprises trained to prepare project proposals for 2003 contracts - 2003 ODS Reduction Contracts signed - Training on Voucher System completed - Vouchers issued to SMEs
2. Public Awareness	- Introduce Solvent Sector Plan and phase-out schedule in newspapers. - Introduce 2003 programme and voucher system through relevant media.
3. Training	Provide personal training courses to ODS users, EPBs and local line ministries
4. Final Notice on banning use of CTC as cleaning solvent	- Ban effective 1 June 2003 - Promotional campaigns on the ban; - ATSS, Local Electronic Bureaus and EPBs engaged in promotion and support to CTC solvent users
5. Strengthen ATSS	Contracts issued, technical capacity improved, progress reports prepared
6. Establishment of standards and technical norms	Contracts issued, progress reports prepared, draft standards finalized

Table 12 Implementation Programme (2000 - 2001)
Performance Indicators

Solvent Phase out Targets					
Solvent Sub-sector	Start of programme (MT)	Reduction Target (MT)	End of programme (MT)	Indicators to be reported on in Semi-Annual Progress Reports. Verified in Annual Performance Audits	Achievement
CFC-113 Imports / Exports	149	0	0	Ban on exports and imports effective January 1, 2001	Promulgated 18 January 2001, effective 1 February 2001
Domestic Consumption and Phase out Target	4,441	466 (plus 600 from on-going MLF projects)	3,375 (in 2001) 2750 (in 2002)	Consumption levels (production plus imports minus exports)	- Overall 2000 and 2001 Consumption and Phase out Targets on CFC-113, TCA and CTC met - ODS Reduction Contracts signed 2000 and 2001 to meet 2002 and 2003 Phase Out Targets
TCA Supplement	-	>100	-	Included in ODS reduction contracts	
Number of ODS Reduction Contracts (inclusive of TCA supplement) Voucher Redeem		L/M 20-40 S 100 (2001)		Number of contract signed (sum of ODS reduction in the contracts) Progress under contracts Number of voucher redeemed	- 16 ODS Reduction Contracts signed in 2000 to phase out 473 MT of CFC-113, 101 MT of TCA and 7.6 MT of CTC; - 21 ODS Reduction Contracts signed in 2001 to phase out 677 MT of CFC-113, 105.9 Mt of TCA

Policy and TA Initiatives		
Initiatives	Indicators to be reported on in semi-annual progress reports	Achievements
1. Bidding System	Bidding system's operating procedures finalized. Winning enterprises for 2000 –2001 selected. Enterprises trained for bid preparation for 2000 and 2001bidding.	- Project Implementation Manual finalized June 2000 and bidding took place in September 2000 and April 2001. - 30 and 23 enterprises selected to participate in 2000 and 2001 phase out activities respectively. - Training took place prior to each year's bidding. - Performance and financial audits carried out in Aug. 2002
2. Public Awareness	Introduce Solvent Sector Plan and phase out schedule on two newspapers Invite ODS solvent users to take part in the reduction bidding and promote the enterprises to participate the phase out actions	- Mass media promotions carried out in August 2000. Periodic articles published in electronic sector's regular publications and countrywide newspapers and magazines. - 30 and 23 enterprises were invited to participate in the 2000 and 2001 bidding.
3. Training	Provide personal training courses to ODS users, EPBs and local line ministries	Trainings and seminars on ODS phase out conducted during 2000 and 2001.
4. Notice on banning newly-built enterprise which produces or uses ODS solvent	Promotional campaigns on the ban; Local Electronic Bureaus and EPBs engaged in overseeing ban enforcement.	Second Export Banning List of ODS promulgated on 18 January 2001 and became formally effective 1 February 2001.
5. Developing ATSS	Contracts issued, progress reports	ATSS composed of national expert group, relevant industrial associations, three technical support centers, alternative solvent or equipment dealers or manufacturers