



**Programa de las
Naciones Unidas
para el Medio Ambiente**

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COMITÉ EJECUTIVO DEL FONDO MULTILATERAL
PARA LA APLICACIÓN DEL
PROTOCOLO DE MONTREAL
Cuadragésima Quinta Reunión
Montreal, 4 al 8 de abril de 2005

PROPUESTA DE PROYECTO: VENEZUELA

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

Eliminación

- Plan nacional de eliminación gradual de CFC: 2da. parte

ONUDI

**HOJA DE EVALUACIÓN DE PROYECTO
(PROYECTOS PLURIANUALES)
VENEZUELA**

TÍTULO DEL PROYECTO	ORGANISMO BILATERAL/ORGANISMO DE EJECUCIÓN
Plan nacional de eliminación gradual de CFC: 2da. parte	ONUUDI

ORGANISMO DE COORDINACIÓN NACIONAL:	FONDOIN
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DATOS DE CONSUMO MÁS RECIENTE PARA SAO OBJETO DEL PROYECTO**A: DATOS DEL ARTÍCULO 7 (TONELADAS PAO, 2003, A MAYO DE 2004)**

Anexo A Grupo I, CFC	1 673,67		
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B: DATOS SECTORIALES DEL PROGRAMA DE PAÍS (TONELADAS PAO, 2003, A MAYO DE 2004)

SAO	Aerosoles	Espumas	Fabricac. ref.	Servicio ref.	Solventes	TOTAL
CFC-11	4,48	27,8	1,70	37,82	0	71,80
CFC-12	0	0	2,45	1 590,57	0	1 593,02
CFC-113	0	0	0	0	8,62	8,62
CFC-115	0	0	0	0,23	0	0,23
Total de CFC	4,48	27,8	4,15	1 628,61	8,62	1 673,67

Consumo de CFC remanente admisible para la financiación (toneladas PAO)	n/c
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PLAN ADMINISTRATIVO DEL AÑO EN CURSO: Financiación total (1 754 000 millones \$EUA);
eliminación total: 492,4 ton. PAO.

DATOS DEL PROYECTO		2004	2005	2006	2007	2008	2009	2010	Total
CFC (toneladas PAO)	Límites del Protocolo de Montreal	3 322,0	1 661,0	1 661,0	498,0	498,0	498,0	0,0	n.c.
	Límite de consumo anual	3 262,0	1 661,0	1 661,0	400,0	400,0	0,0	0,0	n.c.
	Demanda total (referencia)	1 650,3	1 400,5	1 200,5	765,4	515,4	415,4	110,0	6 057,5
	Eliminación anual con proyectos en curso	100	200,0	0	0,0	0,0	0,0	0,0	300
	Eliminación anual nueva abordada	0,0	50,2	200,0	435,0	250,0	100,0	305,4	1 340,6
	Eliminación anual no financiada	-	-	-	-	-	-	-	-
CONSUMO TOTAL DE SAO A ELIMINAR		-	250,2	200,0	435,0	250,0	100,0	305,4	1 540,6
Consumo total de SAO a agregar (HCFC)		-	-	1,8	-	-	-	-	1,8
Costos finales del proyecto (\$EUA):									
Financiación para la ONUUDI		1 895 062	1 631 831	2 071 831	641 831	0	0	0	6.240.555
Financiación total del proyecto		1 895 062	1 631 831	2 071 831	641 831	0	0	0	6 240 555
Costos de apoyo finales (\$EUA):									
Costo de apoyo para la ONUUDI		142 130	122 387	155 387	48 137	0	0	0	468.041
Total de costos de apoyo		142 130	122 387	155 387	48 137	0	0	0	468 041
COSTO TOTAL AL FONDO MULTILATERAL (\$EUA)		2 037 191	1 754 218	2 227 218	689 968	0	0	0	6 708 595
Relación de costo a eficacia final del proyecto (\$EUA/kg)									5,96

* Los datos 2004 de consumo son provisionales

SOLICITUD DE FINANCIACIÓN: Aprobación de una financiación de la segunda parte (2005) como se indica en los párrafos precedentes.

RECOMENDACIÓN DE LA SECRETARÍA	Para consideración individual
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DESCRIPCIÓN DEL PROYECTO

1. En nombre del gobierno de Venezuela, la ONUDI presentó a la 45a. Reunión del Comité Ejecutivo una solicitud para la segunda parte del plan nacional de eliminación gradual de CFC de Venezuela. La solicitud fue acompañada por un documento bipartito: "Capítulo 1: logros de la primera parte" y "Capítulo 2: Programa Anual de Ejecución: segunda parte".
2. El Acuerdo para el plan nacional de eliminación gradual de CFC para Venezuela se aprobó originalmente en la 42ª Reunión del Comité Ejecutivo en 2004, con un nivel de financiamiento de 6 240 555 \$EUA. Mediante este plan, el gobierno de Venezuela se propuso eliminar su consumo de CFC, yendo de 1 673,67 toneladas PAO a 1 661 toneladas PAO, en 2005 y 2006, a 400 toneladas PAO, en 2007 y 2008, y cero tonelada PAO para fines de 2008.
3. El Acuerdo entre el Comité Ejecutivo y Venezuela prevé que el Comité Ejecutivo no proporcionará el financiamiento siguiendo el calendario de aprobación de financiamiento, a menos que el país satisfaga las condiciones siguientes:
 - a) Que el país ha logrado el objetivo correspondiente al año aplicable;
 - b) Que el cumplimiento del objetivo ha sido verificado de manera independiente;
 - c) Que el país ha terminado básicamente todas las medidas establecidas en el último Programa Anual de Ejecución; y
 - d) Que el país ha presentado al Comité Ejecutivo y recibido la autorización del mismo para un programa anual de ejecución para el año para el cual se está solicitando el financiamiento.
4. La ONUDI informó los datos preliminares de consumo en 2004, que estaban muy por debajo del consumo máximo admisible para ese año. La ONUDI informó a la Secretaría que dado que la fecha límite de la presentación era a principios de febrero de 2005, no fue posible someter también una auditoría de verificación.
5. La ONUDI informó sobre el progreso del programa anual de ejecución de 2004. La comparación entre las actividades previstas en el último programa anual de ejecución, aprobado en 2004, y las actividades realizadas contenían discrepancias significativas. Los programas de capacitación para los técnicos en refrigeración y el proyecto nacional suplementario de recuperación y reciclado de refrigerantes, planeado para 2004, todavía no se han empezado a ejecutar; actualmente, se están haciendo sondeos como parte de otra actividad. Las actividades previstas para 2004 tiene gastos asociados de 1 895 062 \$EUA, de los cuales 652 644 \$EUA (34.4%) ya fueron asignados o incurridos en 2004.
6. La ONUDI incluyó un programa anual de ejecución para 2005 con la presentación del pedido de financiamiento para la segunda parte del plan nacional de eliminación gradual de CFC para Venezuela. El programa anual de ejecución presentado por la ONUDI en nombre de Venezuela sigue, en principio, el formato proporcionado en el Acuerdo entre Venezuela y el Comité Ejecutivo. De los 1 631 831 \$EUA previstos para el programa de 2005,

1 460 000 \$EUA (89.5%) se prevén para un proyecto nacional suplementario de recuperación y reciclado de refrigerantes, las actividades de 2005 son una continuación del programa de 2004. En 2004, el financiamiento previsto para esta actividad fue 867.100 \$EUA, de los cuales no hubo desembolsos. El financiamiento total proyectó para esta actividad particular en 2004 y 2005 corresponde a 37,3% de los fondos totales aprobados en principio para el plan nacional. Mientras que el plan anual especifica actividades y financiamiento asociado, el Capítulo 1 "Logros de la primera parte" especifica que las necesidades sólo actualmente están siendo determinadas.

COMENTARIOS Y RECOMENDACIÓN DE LA SECRETARÍA

COMENTARIOS

7. En el momento de redactar este documento, tres de las cuatro condiciones previas para la aprobación de las partidas anuales, según lo citado en el párrafo 3 anterior, no se consideran satisfechas, a saber, la condición de la verificación, la ejecución del programa anual del año anterior y la presentación de un programa anual aprobable de ejecución para el año actual. En los párrafos siguientes se examinan las cuestiones relacionadas con esas condiciones no satisfechas:

- a) *Verificación de consumo:* la verificación de los objetivos de consumo requiere, en el caso de Venezuela como país productor de CFC, la verificación de la producción, importaciones y exportaciones. La ONUDI, siendo también responsable del proyecto del sector de producción en Venezuela, no pudo hasta ahora presentar una verificación de las cifras de producción de 2004.
- b) *Ejecución del programa anual del año anterior:* los desembolsos bajos del programa anual de ejecución de 2004, así como el contenido de la información, indican que el país no ha terminado substancialmente todas las medidas, como se estipuló. En el estudio teórico ampliado sobre la evaluación de los planes nacionales de eliminación gradual, el oficial principal de evaluación señala que el "desembolso se relaciona y debe relacionarse con las actividades importantes indicadas en programas anuales, y la concentración en el período inicial de la mayoría de los acuerdos no debe dar lugar a un torrente de gastos para las actividades intensivas con equipos insuficientemente preparados". La Secretaría quisiera señalar que la decisión de Venezuela y la ONUDI de considerar meticulosamente y efectuar lentamente el gasto de los fondos para la eliminación de CFC, en la situación de Venezuela, probablemente sean la manera más apropiada de ir adelante.
- c) *Programa anual de ejecución listo para aprobación para el año actual:* el programa anual de ejecución para 2005 no considera el financiamiento traspasado de la primera parte y consiste en las actividades basadas en información obsoleta, puesto que el sondeo real está en curso.

8. En vista del financiamiento de 1 242 418 \$EUA que queda en las cuentas de la ONUDI relacionado con la parte del año pasado, equivalente al 65,6% del financiamiento original, la Secretaría cree que la ONUDI no debería desembolsar ningún financiamiento antes de que se haya presentado un programa anual de ejecución que sea adecuado.

RECOMENDACIÓN

9. En vista de las explicaciones anteriores, el Comité Ejecutivo puede querer postergar la consideración del pedido de la parte de 2005 del plan nacional de eliminación gradual de CFC para Venezuela, hasta que se hayan cumplido las condiciones especificadas en el Acuerdo entre Venezuela y el Comité Ejecutivo.

10. Por otra parte, el Comité Ejecutivo puede querer:

- a) Tomar nota con beneplácito de que Venezuela informó que el consumo real en el país era substancialmente más bajo que las 3 262 toneladas PAO definidas como consumo máximo admisible para 2004 en el Acuerdo;
- b) Convenir un nivel de financiamiento de 1 631 831 \$EUA, más \$122 387 \$EUA en gastos de apoyo para la ONUDI, para la segunda parte del plan nacional de eliminación gradual de CFC para Venezuela;
- c) tomar nota de que el desembolso del financiamiento aprobado para la ONUDI, bajo el subpárrafo b) anterior no debería comenzar hasta que se haya logrado un acuerdo entre la Secretaría y la ONUDI que las condiciones siguientes se cumplen:
 - i) La verificación del consumo de 2004 y la eliminación anual relacionada se han terminado con un informe apropiado de verificación; y
 - ii) La presentación de un programa anual de ejecución satisfactorio para 2005, que tome en consideración el financiamiento transportado de la primera parte, inclusive una descripción detallada de las responsabilidades de las diversas partes interesadas en la ejecución, así como una lista detallada de las actividades.
- d) Solicitar a la Secretaría que informe al Comité Ejecutivo sobre el avance logrado en su 46ª Reunión, como parte del informe sobre la ejecución de proyectos aprobados con requisitos de información específicos.

PROJECT COVER SHEET – MULTI-YEAR PROJECTS

COUNTRY: Venezuela

PROJECT TITLE

National CFC phase-out plan for Venezuela, 2nd Tranche

IMPLEMENTING AGENCY

UNIDO

NATIONAL COORDINATING AGENCY:

FONDOIN

LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

A: ARTICLE-7 DATA (ODP tonnes, 2003, AS OF MAY 2004)

Annex A Group I, CFCs	1,673.67
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B: COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes, 2003, AS OF MAY 2004)

ODS	Aerosol	Foam	Ref. mfg.	Ref. Service	Solvent	TOTAL
CFC-11	4.48	27.8	1.70	37.82	0	71.80
CFC-12	0	0	2.45	1,590.57	0	1,593.02
CFC-113	0	0	0	0	8.62	8.62
CFC-115	0	0	0	0.23	0	0.23
CFC Total	4.48	27.8	4.15	1,628.61	8.62	1,673.67

CFC Consumption remaining eligible for funding (ODP tonnes)	n.a.
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CURRENT YEAR BUSINESS PLAN: Total funding \$1,754,000: Total phase-out, 492.4 ODP tonnes

PROJECT DATA		2004	2005	2006	2007	2008	2009	2010
CFCs (ODP tonnes)	Montreal Protocol limits	3,322.0	1,661.0	1,661.0	498.0	498.0	498.0	0.0
	Annual consumption limit	3,262.0	1,661.0	1,661.0	400.0	400.0	0.0	0.0
	Total demand (reference)	1,650.3	1,400.5	1,200.5	765.4	515.4	415.4	110.0
	Annual phase-out from ongoing projects	100	200.0	0	0.0	0.0	0.0	0.0
	Annual phase-out newly addressed	0.0	50.2	200.0	435.0	250.0	100.0	305.4
	Annual unfounded phase-out	-	-	-	-	-	-	-
TOTAL ODS CONSUMPTION TO BE PHASED OUT		-	250.2	200.0	435.0	250.0	100.0	305.4
Total ODS consumption to be phased in (HCFCs)		-	-	1.8	-	-	-	-
Project costs (US\$):								
Funding for UNIDO		1,895,062	1,631,831	2,071,831	641,831			
Total project funding		1,895,062	1,631,831	2,071,831	641,831			
Support cost								
Support cost for UNIDO		142,130	122,387	155,387	48,137			
Total support costs		142,130	122,387	155,387	48,137			
TOTAL COST TO MULTILATERAL FUND (US\$)		2,037,191	1,754,218	2,227,218	689,968			

* 2004 Consumption data are provisional

Project cost effectiveness (US\$/kg ODP)	5.96
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FUNDING REQUEST: Approval of funding for 2nd tranche (2005) as indicated above.

Prepared by: FONDOIN / UNIDO

Date: 7 February 2005

Reviewed by: n.a.

Date: n.a.

CHAPTER 1. ACHIEVEMENT; FIRST TRANCHE

1. Preface

National CFC phase-out plan (NPP) for Venezuela was approved in April 2004 at the 42nd Meeting of Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol. The implementation of the project has started in May 2004 through intimate discussion between the NOU in FONDOIN and UNIDO to determine the implementation modality of this complicated project involving a number of different types of activities and stakeholders. Major achievement for project implementation during May 2004 – January 2005 is described in this Chapter.

2. Targets

Target achieved, 2004:	2,859 ODP tonnes*	Target set in Agreement, 2004:	3,262 ODP tonnes
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* Provisional data as of 22 February 2005

Indicators		Preceding Year, 2003	Year of Plan, 2004		Reduction (Increase)
		Actual ¹⁾	Actual ¹⁾ (provisional)	Reference Annual program ²⁾	Actual
Supply of ODS by	Import	79	40.2	40	39
	Production	1,309 ³⁾	2,818.8 ⁴⁾	3,222	(1,510)
	Total (1)	1,389	2,859.0	3,262	(1,470)
Demand of ODS	Manufacturing	45	10.4	203	-
	Servicing	1,629	Under compilation	1,449	-
	Stockpiling	-285	Under compilation	1,612	-
	Total (2)	1,389	2,859.0	3,262	(1,470)

- 1) Actual data reported to the Ozone Secretariat for 2003 and the provisional data for 2004 as of 22 February 2005.
- 2) Data used in the annual implementation programme, first tranche, as a reference.
- 3) Production (2,024.27 ODP tonnes) – Export (714.83 tonnes) as per reported to the Ozone Secretariat.
- 4) Provisional data: Production (3,564.7 ODP tonnes) – Export (746.0 ODP tonnes).

In accordance with the Article 7 in the Montreal Protocol, FONDOIN is in the process to compile the statistical data on the production, imports and exports of CFCs for 2004. The official statistical data will be reported to the Ozone Secretariat as per the normal process and time schedule for reporting. Therefore, the CFC consumption data available at the moment is only provisional. Nevertheless, the data in the above table demonstrate that Venezuela fulfilled the year 2004 requirement of the Agreement for the maximum allowable CFC consumption level defined in Article 1 of the Montreal Protocol, i.e., consumption = production + import - export. ¹

The CFC supply amount by domestic production was lower than that predicted in the annual implementation program by about 400 ODP tonnes², while the imported amount was same as

¹ Provisional CFC data for 2004 (as of 22 February 2005) are in the table below, -

	CFC-11	CFC-12	CFCs
Production	288.6	3,276.1	3,564.7
Exports	132.1	613.9	746.0
Imports	-	40.18	40.18
Consultation	156.5	2,702.4	2,859.0

predicted. Thus, the total supply and the consumption of new CFCs to/in the domestic market amounted to only 2,859 ODP tonnes, less than the annual consumption limit, 3,262 ODP tonnes under the Agreement for 2004 by about 400 ODP tonnes.

3. Industry Action

Sector	Reference Consumption in 2003		Consumption Year of Plan ³⁾ (2004)	Reduction within Year of Plan (2003)-(2004)	Number of Projects Completed	Number of Servicing Related Activities	ODS Phase-Out (in ODP tonnes)
	AP ¹⁾	Secr. ²⁾					
MANUFACTURING							
Aerosol	16	4.48	0	0	0		0
Foam	286	27.8	0	27.8	3		27.8
Refrigeration	50	4.15	10.4	(6.3)	0		(6.3)
Solvents	-	8.62	-	-	-		-
Other	-	-	-	-	-		-
Total	352	45.06	10.4	21.5	3		21.5
SERVICING							
Refrigeration	1,680	1,628.6	Under compilation	To be determined	0	3	To be determined
Total	1,680	1,628.6	Under compilation	To be determined	0	3	To be determined
GRAND TOTAL	2,032	1,673.7	Under compilation	To be determined	3	3	To be determined

- 1) Data used in the annual implementation programme 2004.
- 2) Data reported to the Ozone Secretariat and the Fund Secretariat.
- 3) Provisional data as of 22 February 2005.

² NB: The absolute provisional CFC production amount was lower than the newly agreed production limit, 4,400 ODP tonnes for the year 2004.

Total consumption

The Article 7 CFC consumption amount reported to the Ozone Secretariat is 1,673.7 ODP tonnes for 2003 (the estimated CFC consumption in 2003 was 2,032 ODP tonnes at the time of submission of the national phase-out plan). Provisional data for the actual total consumption in 2004 including the stockpile are 2,859 ODP tonnes.

Sector trend

The sector breakdown of the CFC consumption is being compiled at this moment. However, following salient industrial trend was observed for each consumption sector in terms of CFC demand in 2004.

Aerosol sector – It has been ensured that the CFC demand in the aerosol sector is being phased-out without substantial investment assistance under the NPP. As a matter of fact, the actual consumption in 2003 was 4.8 ODP tonnes; 8.6 ODP tonnes of CFC were used for the solvent for aerosol formulations. The actual demand in 2004 would be lower than 16 ODP tonnes which was predicted in the annual implementation programme for 2004.

Foam sector – The 2003 actual CFC consumption in the foam sector was far lower than predicted, presumably due to the market situation as well as progress of on-going projects. Likewise the aerosol sector, the 2004 actual consumption would be much lower than that predicted in the annual implementation programme.

Refrigeration manufacturing sector – There is the same trend in this sector as in the foam sector. The actual 2004 consumption would be quite limited, and the remaining consumption would be further reduced with the measures taken for the manufacturing sectors in the 1st tranche of the NPP.

Refrigeration service sector – According to the above analysis, the major consumption of CFCs is for servicing refrigeration equipment. The 2004 service consumption would be not much reduced from 2003. This sector remains to be the major objective for a series of counter measures under the NPP.

4. Technical Assistance Activities

4.1. Achievement of activities listed in the annual implementation programme

- | | |
|-----------------------|---|
| a) Proposed Activity: | Workshop(s) and investment assistance for CFC user industry in aerosol sector |
| Objective: | Achieve final phase out of CFC use in the aerosol manufacturing sector |
| Target Group: | Enterprises in the above sectors |
| Impact: | Phase-out of 16 ODP tonnes of CFC in 2006 |

- Achievement: Through intimate communication between the NOU and industry, it has been ensured that the consumption in the aerosol sector is being phased-out without substantial investment assistance by the NPP.
- b)** Proposed Activity: Workshop(s) and investment assistance for CFC user industry in refrigeration manufacturing sector
- Objective: Achieve final phase-out of CFC use in the refrigeration manufacturing sector
- Target Group: Enterprises in the above sectors
- Impact: Phase-out of 25 ODP tonnes of CFC in 2006
- Achievement: The relevant industry and enterprises were re-surveyed by the regional consulting firm to ensure effectiveness of assistance for the CFC phase-out in the refrigeration manufacturing sector. The scope and specification of required equipment was determined by FONDOIN and UNIDO. UNIDO ordered the equipment through the international bidding.
- c)** Proposed Activity: Awareness campaign
- Objective: Assist the phase-out of CFC use on national level
- Target Group: Enterprises and general public in the country
- Impact: Increased public awareness on importance of ozone layer protection and its practical implications
- Achievement: FONDOIN actively executed the awareness activity throughout 2004 by preparing promotion CDs, publicizing the Ozone matter in public media and organizing other related activities.
- d)** Proposed Activity: Training of national experts and key stakeholders of the implementation of the NPP
- Objective: Strengthening of national capacity on project implementation and phase-out programme
- Target Group: National experts, FONDOIN staff, and government officials
- Impact: Effective implementation of NPP
- Achievement: With UNIDO assistance, the selected FONDOIN staff and national experts completed the fundamental training related to the refrigerant management plan (RMP) in terms of legislation in industrialized countries, latest information of alternatives, and essential matters for good service practice as

well as the service and recovery equipment and technology. After the fundamental training, the national core personnel made a tour to Romania and Croatia to learn their experiences with RMP. Right after this core personnel training event, FONDOIN prepared the detailed plan of implementation of NPP.

- e) Proposed Activity: Training programmes for the refrigeration service technicians
- Objective: Improvement of technical skills, dissemination of information on good practices in refrigeration servicing, awareness on available alternative refrigerants
- Target Group: Refrigeration service technicians, training institutions
- Impact: Increased CFC containment, strengthening of recovery, recycling and reclamation system, reduction of CFC refrigerant consumption in the service sector
- Achievement: National expert was assigned by FONDOIN, who started investigation of capable training institutes in Venezuela. Fifteen institutes were selected as potential national training centres under the NPP. Specification of training equipment was determined and the international bidding is being started to procure the training equipment to be provided to the selected training institutes.

4.2 Establishment of national project implementation structure

Through the execution of activities described in the previous section, the national project implementation structure was established. As stated in the Agreement, the NOU in FONDOIN is the central coordination institute for the whole project. FONDOIN assigned several experienced staff as dedicated officers for the NPP implementation. Further, FONDOIN assigned several regional and national institutes for implementation of activities including, -

- Survey of manufacturing sectors,
- Survey of refrigeration service sector,
- Survey of the national training institutes to select training centres under the NPP,
- Preparation of national training manual for the service technicians,
- Assistance to determine the scope and specification of necessary equipment for both manufacturing and service sectors,

UNIDO contracted with FONDOIN for the execution of the project.

5. Manufacturing Sector Programme

All on-going projects have been completed except two enterprises under the umbrella project, and the CFC consumption in the sector was significantly reduced (even already in 2003, see the table below).

SECTOR	PROJECT TITLE	IMPACT ODP tonnes	STATUS	IA
Foam St/PE	Phasing out CFC-12 at Fandec C.A. (EPSR Foam)	45	Completed	UNIDO
Foam Rigid	Phasing out CFC-11 with HCFC-141b at Friobox in the production of rigid P.U. panels	16.5	Completed In 2003	UNIDO
Foam Rigid	Phasing out CFC-11 with HCFC-141b at Nevecor in the production of rigid P.U. panels	36.4	Completed	UNIDO
Foam Rigid	Phasing out CFC-11 by conversion to HCFC-141b as a blowing agent in the manufacture of rigid polyurethane foams (Umbrella No. 1) (Frimac, Frizer, El Control, Incumaca, Frive, Lunger, Profibra, Recovenca, Refriven, Requiven, Tefiven and Vanger)	53.6 (original 62.8)	Completed	UNIDO
Foam Integral skin	Phasing out CFC-11 by conversion to water system as a blowing agent in the manufacture of flexible polyurethane foams at Manufacturas Enveta, C.A. Cumana	32	Completed	UNIDO
Foam Rigid	Phasing out CFC-11 by conversion to HCFC-141b as a blowing agent in the manufacture of rigid polyurethane foams (umbrella project No. 2)	135.5	Completed	UNIDO
Refrigeration	Phasing out CFC-12 with HFC-134a and CFC-11 with HCFC-141b at 7 commercial refrigeration companies (Vikingo, Eterna, Indarelca, J.R. Refrigeración, Inelmem, Couttenye and Refrinaza)	32.3	Commissioned except J.R. Refrigeration and Couttenye	UNIDO

The specification of necessary equipment to phase-out CFC in the remaining foam and refrigeration enterprise was determined through the extensive investigation of the relevant industry. UNIDO ordered the equipment through the international bidding.

6. Service Sector Programme

6.1. Review of the original recovery and reclamation project

As an important project activity to ensure the effective linkage between “the recovery and reclamation of refrigerants project” (the original R&R project, VEN/REF/22/TAS/58) and the present NPP, FONDOIN investigated comprehensively the status of the equipment provided under the original R&R project. The following is the result of the investigation of the equipment, which provides the basis for the determination of the specification of additionally required equipment (or parts to fix the broken machines) for the establishment of the efficient national scheme of the refrigerant recovery and recycling.

- Number of recovery machines provided to the country under the original R&R project: 471 units
- Number of distributed recovery machines during 1999 - 2003: 200 units
- Number of distributed recovery machines in 2004: 189 units
- The total number of recovery machines distributed: 389 units (82.5 %)
- Number of recovery machines with drawback: 40 units

Some of recipients claimed that the capacity of the delivered recovery machine was not adequate for the recovery operation for big installations. This problem may be sorted out through the

training program for service technicians, since there are ways to increase the rate of recovery such as liquid transfer or even push-pull operation.

6.2. Re-survey of regional centres and service shops

FONDOIN has been conducting the re-survey with the assistance of the regional expert of the current situation of the refrigeration service industry and the eight regional centres established under the original R&R programme in order to ensure effectiveness of possible provision of service equipment and parts to fix the previously distributed equipment under the original R&R project. The final specification of additional equipment is expected to be ready by February 2005, so that international bidding will be started by March 2005 for the procurement of the equipment and parts.

7. Government Action

Highlights

The major significant achievement of the Government action is the approval and the publication of the Decree 3228 to control and reduce the production, consumption, imports and exports of ODSs. At present, Ministry of Environment, Custom Service and FONDOIN are preparing the brochure for the national campaign to promote and enforce the Decree 3228.

It is to be emphasized that after the satisfactory implementation of the customs training in 2004, there was no indication of illegal trade of CFC-11 and CFC-12 in the country.

Assessment of the achievements of activities listed in Annual Implementation Programme 2004

Policy/Activity Planned	Schedule of Implementation	Assessment of Achievement
1) Coordinated program with Customs staff, National Guard and Environment Ministry to monitor illegal imports of CFCs. Coordination with the ozone net in Latin America to collect and disseminate information on illegal imports into neighboring countries.	From May 2004 onward after finishing the customs training program	Achieved satisfactorily
2) Analysis of import licenses and CFC sales of distributors to monitor consumption	From May 2004 onward	Achieved satisfactorily
3) Preparation of a videotape with the University of Los Andes and "La Salle" Foundation, addressed to the secondary students. Implementation of a training program with the Ministry of Education to improve awareness of students of the technological	May 2004 onward	Achieved satisfactorily

institutions dealing with refrigeration issues. To approach the national TV Channels requesting to broadcast programmes in connection with the protection of the Ozone layer.		
4) To organize a workshop in cooperation with the Cuban authorities to present the Cuban program on the use of hydrocarbons as refrigerants in domestic refrigeration and in new equipment, with the aim of implementing a similar program in Venezuela if it is successful.	May – December 2004	-

8. Financial Status (as of January 2005)

The table below compares the actual expenditure as of January 2005 and the planned expenditure in the annual implementation programme.

Activity	Planned Expenditures (US \$)	Actual Expenditures As of Jan. 2005 (US \$)
a. Project management and technical assistance	141,831	384,644*
b. Technical support component (aerosol and refrigeration manufacturing, training and awareness)	366,731	
c. Foam sector program	201,500	268,000
d. National project for training of service technicians	317,900	**
e. Supplementary national refrigerant recovery and recycling project	867,100	**
TOTAL	1,895,062	652,644

* Contract with FONDOIN, UNIDO mission, Core personnel training, and miscellaneous expenditures.

** the cost for the survey of training institutes and the service industry as well as the status of the equipment delivered is included in the contract with FONDOIN.

After completing the re-survey of the service sector, the scope and specification of the necessary equipment and parts is determined, so that the international bidding will be started by March 2005 to procure necessary service equipment and parts to fix the damaged equipment delivered under the original recovery and recycling programme.

The allocation of the fund for technicians training and the supplementary recovery and recycling programme is being adjusted as per Clause 8 in the Agreement.

9. Conclusion

All the milestones set for the first tranche in the national CFC phase-out plan for Venezuela were achieved. The current legislation is effectively functioning and supporting the CFC phase-out programme for Venezuela. The approval of the new Decree 3288 definitely result in the more effective control of the ODS in the country.

With the established implementation structure for the NPP implementation, the National Ozone Unit in FONDOIN is closely monitoring the phase-out programme and undertaking the necessary corrective measures if and when required. The ongoing awareness programmes contribute to the further reduction of ODS consumption in the Country.

CHAPTER 2. ANNUAL IMPLEMENTATION PROGRAMME; SECOND TRANCHE

1. Data

Country	:	Venezuela
Year of plan	:	2005
# of years completed	:	1
# of years remaining under the plan	:	3
Target ODS consumption of the preceding year	:	3,262 ODP tonnes
Target ODS consumption of the year of plan	:	1,661 ODP tonnes
Level of funding requested (without the support cost)	:	US\$ 1,631,831
Lead implementing agency	:	UNIDO

2. Target

Target:		1,661 ODP tonnes		
Indicators				
		Preceding Year¹⁾ 2004	Year of Plan, 2005	Reduction (Increase)
Supply of ODS by	Import	40.2	0	40.2
	Production	2,818.8	1,661	1,158
	Total (1)	2,859	1,661	1,198
Demand of ODS	Manufacturing	Under compilation	35	-
	Servicing	Under compilation	1,365 ²⁾	-
	Stockpiling	Under compilation	260.5	-
	Total (2)	2,859	1,661	1,198

1) Provisional data as of 22 February 2005.

2) A small amount of the usage for manufacturing is included.

3. Industry Action

Actual sector consumption data are being compiled and the data here are those used in the annual programme 2004 except the provisional actual total consumption.

Sector	Consumption Preceding Year (2004)	Consumption Year of Plan (2005)	Reduction within Year of Plan (2004)-(2005)	Number of Projects Completed	Number of Servicing Related Activities	ODS Phase-Out (in ODP tonnes)
Manufacturing						
Aerosol	16	16	0	0		0
Foam	187	19	168	0		168
Refrigeration	-	-	0	0		0
Solvents	-	-	-	-		-
Other	-	-	-	-		-
Total	203	35	168	0		168
Servicing						
Refrigeration	1,448	1,365	83	0	2	83
Total	1,448	1,365	83	0	2	83
GRAND TOTAL						
	1,650	1,401	251	0	2	83

3. Technical Assistance Activity

- a) Proposed Activity: Awareness campaign (continued from the first tranche)
- Objective: Assist the phase-out of CFC use on national level
- Target Group: Enterprises and general public in the country
- Impact: Increased public awareness on importance of ozone layer protection and its practical implications
- b) Proposed Activity: Training programmes for the refrigeration service technicians (continued from the first tranche) with following activities, -
- procurement of training equipment
finalizing and printing training materials and text books
second-phase technicians training followed by certification
- Objective: Improvement of technical skills, dissemination of information on good practices in refrigeration servicing, awareness on available alternative refrigerants
- Target Group: Refrigeration service technicians, training institutions

Impact: Increased CFC containment, strengthening of recovery, recycling and reclamation system, reduction of CFC refrigerant consumption in the service sector

4. Supplementary recovery and recycling project

- 4.1 Re-establishment of recycling centers: Recycling centers will be re-established to cover all the country. The distribution of centers will be determined through the investigation of industrial activities in all regions.
- 4.2 Training of centre staff: Training of center staff will be conducted on the business administration as well as recovery and recycling skill and related country regulation.
- 4.3 Delivery of service equipment to selected service shops: The first phase provision of service equipment will be executed. Selection of recipients will be done on the selection criteria of recipients to be developed by the national experts and the NOU as well as related Government authority and industry representatives.
- 4.4 Repairing damaged equipment.

5. Government Action

The Control Measures listed in the table below will be implemented.

Government action in the second tranche.

Policy/Activity Planned	Schedule of Implementation
Enforcement of Decree 3228	Entire year 2005
Monitoring the on-going investment projects	Entire year 2005
Monitoring PRODUVEN production phase-out project	Entire year 2005

6. Annual budget

The table below summarizes planned expenditures for the second tranche of the NPP, Venezuela.

Project costs of the NPP, second tranche

Activity	Planned Expenditures (US \$)
Project management and technical assistance	141,831
Technical support component (aerosol and refrigeration manufacturing, training and awareness)	30,000
Supplementary national refrigerant recovery and recycling project	1,460,000
TOTAL	1,631,831

7. Administrative fee

US\$ 122,387

Appendix. Detailed budget for the supplementary national refrigerant recovery and recycling project (as per the project proposal submitted to the 42nd Meeting of the Executive Committee)

Items	Description	unit cost	Q'ty	Sub total	2004 tranche	2005 tranche	2006 tranche
Supplementary national refrigerant recovery and recycling project							
Establishment of recycling centre	Total 15 recycling centres						
Training of recovery centre staff		1,000	15	15,000	15,000		
Centre equipment	recycling machine with air purge function	8,000	15	120,000	120,000		
	recovery cylinders	50	200	10,000	10,000		
	storage cylinders	300	15	4,500	4,500		
	service tools (piercing valve, gauge manifold etc.)	300	60	18,000	18,000		
	refrigerant identifier	1,000	30	30,000	30,000		
	Sub total			197,500	197,500	0	0
Equipment for service shops	for 750 MAC shops,						
	MAC R&R units	2,500	750	1,875,000	0	937,500	937,500
	Commercial R&R unit	2,000	100	200,000		100,000	100,000
	Filter units for already supplied units	300	471	141,300	141,300	0	0
	recovery bag	30	1,000	30,000	30,000	0	0
	Vacuum pump	200	2,300	460,000	100,000	100,000	260,000
	Recovery cylinder	30	4,000	120,000	80,000	40,000	
	flushing unit with non-CFC	500	500	250,000		0	250,000
	service tools (piercing valve, gauge manifold etc.)	300	2,000	600,000	300,000	250,000	50,000
	Sub total			3,676,300	651,300	1,427,500	1,597,500
Contingency				363,300	18,300	32,500	312,500
Element Total				4,237,100	867,100	1,460,000	1,910,000