



Programme des Nations unies pour l'environnement



Distr.
RESTREINTE

UNEP/OzL.Pro/ExCom/45/43
9 mars 2005

FRANÇAIS
ORIGINAL: ANGLAIS

COMITE EXECUTIF DU FONDS
MULTILATERAL AUX FINS D'APPLICATION
DU PROTOCOLE DE MONTREAL
Quarante-cinquième réunion
Montréal, 4-8 avril 2005

PROPOSITION DE PROJET: VENEZUELA

Ce document contient les observations et la recommandation du Secrétariat du Fonds sur la proposition de projet suivante:

Élimination

- Plan national d'élimination des CFC: deuxième tranche

Par souci d'économie, le présent document a été imprimé en nombre limité. Aussi les participants sont-ils priés de se munir de leurs propres exemplaires et de s'abstenir de demander des copies supplémentaires.

**FICHE D'EVALUATION DU PROJET
(PROJETS PLURIANNUELS)
VENEZUELA**

TITRE DU PROJET**AGENCE BILATERALE/D'EXECUTION**

| | |
|---|-------|
| Plan national d'élimination des CFC: deuxième tranche | ONUDI |
|---|-------|

| | |
|--|---------|
| ORGANISME NATIONAL DE COORDINATION: | FONDOIN |
|--|---------|

DERNIERES DONNEES DE CONSOMMATION DE SAO SIGNALISEES POUR LE PROJET**A: DONNEES VISEES A L'ARTICLE-7 (TONNES PAO, 2003, à mai 2004)**

| | | | |
|-------------------------------|----------|--|--|
| CFC du Groupe I de l'Annexe A | 1 673,67 | | |
| | | | |

B: DONNEES SECTORIELLES DU PROGRAMME DE PAYS (TONNES PAO, 2003, à mai 2004)

| SAO | Aérosols | Mousses | Fab. Réfrig. | Entret. Réfrig. | Solvants | 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 CFC | 4,48 | 27,8 | 4,15 | 1 628,61 | 8,62 | 1 673,67 |

| | |
|--|------|
| Reste de la consommation de CFC admissible aux fins de financement (tonnes PAO) | S.O. |
|--|------|

PLAN D'ACTIVITES DE L'ANNEE EN COURS: Financement total de 1 754 000 \$US: élimination finale de 492,4 tonnes PAO

| DONNEES DU PROJET | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| tonnes CFC (PAO) | Plafonds du Protocole de Montréal | 3 322,0 | 1 661,0 | 1 661,0 | 498,0 | 498,0 | 498,0 | 0,0 | s.o. |
| | Plafond de consommation annuelle | 3 262,0 | 1 661,0 | 1 661,0 | 400,0 | 400,0 | 0,0 | 0,0 | s.o. |
| | Demande totale (référence) | 1 650,3 | 1 400,5 | 1 200,5 | 765,4 | 515,4 | 415,4 | 110,0 | 6 057,5 |
| | Elimination finale sur projets en cours | 100 | 200,0 | 0 | 0,0 | 0,0 | 0,0 | 0,0 | 300 |
| | Élimination annuelle nouvellement traitée | 0,0 | 50,2 | 200,0 | 435,0 | 250,0 | 100,0 | 305,4 | 1 340,6 |
| | Élimination annuelle non fondée | - | - | - | - | - | - | - | - |
| CONSOMMATION TOTALE DE SAO A ELIMINER | | - | 250,2 | 200,0 | 435,0 | 250,0 | 100,0 | 305,4 | 1 540,6 |
| Consommation totale de SAO à introduire (HCFC) | | - | - | 1,8 | - | - | - | - | 1,8 |
| Coût total du projet (\$US): | | | | | | | | | |
| Financement pour l'ONUDI | | 1 895 062 | 1 631 831 | 2 071 831 | 641 831 | 0 | 0 | 0 | 6 240 555 |
| Financement total du projet | | 1 895 062 | 1 631 831 | 2 071 831 | 641 831 | 0 | 0 | 0 | 6 240 555 |
| Montant final des frais d'appui | | | | | | | | | |
| Frais d'appui pour l'ONUDI | | 142 130 | 122 387 | 155 387 | 48 137 | 0 | 0 | 0 | 468 041 |
| Montant total des frais d'appui | | 142 130 | 122 387 | 155 387 | 48 137 | 0 | 0 | 0 | 468 041 |
| COUT TOTAL POUR LE FONDS MULTILATERAL (\$US) | | 2 037 191 | 1 754 218 | 2 227 218 | 689 968 | 0 | 0 | 0 | 6 708 595 |
| Rapport coût-efficacité (\$US/kg) | | | | | | | | | 5,96 |

*Les données de consommation de 2004 sont provisoires

DEMANDE DE FINANCEMENT: **Approbation du financement de la deuxième tranche (2005) tel qu'indiqué ci-dessus.**

| | |
|--------------------------------------|--------------------------|
| RECOMMANDATION DU SECRETARIAT | Examen individuel |
|--------------------------------------|--------------------------|

DESCRIPTION DU PROJET

1. Pour le compte du Gouvernement du Venezuela, l'ONUDI a présenté à la 45^{ème} Réunion du Comité exécutif une demande de financement de la seconde tranche du plan national d'élimination des CFC pour le Venezuela. La demande a été accompagnée d'un document en deux parties intitulées "Chapitre 1: Réalisation de la première tranche" et "Chapitre 2: Programme annuel d'exécution; Deuxième Tranche".

2. L'Accord pour le plan national d'élimination des CFC du Venezuela a été approuvé initialement à la 42^{ème} Réunion du Comité exécutif en 2004, avec un montant de financement de 6 240 555 \$US. A travers ce plan, le Gouvernement du Venezuela visait à faire passer le taux d'élimination de sa Consommation de CFC de 1 673,67 tonnes PAO à 1,661 tonnes PAO en 2005 et 2006, 400 tonnes PAO en 2007 et 2008 avant de parvenir à une élimination définitive à la fin de l'année 2008.

3. L'Accord passé entre le Comité exécutif et le Venezuela prévoit que le Comité exécutif n'approuvera le financement, conformément au Calendrier d'approbation des financements, que si le Pays satisfait les conditions suivantes:

- (a) Que le pays a atteint l'objectif d'élimination arrêté pour l'année correspondante;
- (b) Que la réalisation de cet objectif d'élimination a été vérifiée et confirmée par des experts indépendants;
- (c) Que le pays a mis en œuvre, de manière substantielle, toutes les actions prévues dans le dernier programme annuel de mise en œuvre; et
- (d) Que le pays a présenté un programme annuel d'exécution pour l'année au titre de laquelle le financement est demandé, et que celui-ci a obtenu l'aval du Comité exécutif.

4. L'ONUDI a communiqué les données provisoires de consommation pour l'année 2004. Celle-ci s'est avérée bien inférieure à la consommation annuelle autorisée pour l'année en question. L'ONUDI a informé le Secrétariat que l'audit de vérification n'a pu être présenté car le délai de remise était fixé au début de février 2005.

5. L'ONUDI a rendu compte des progrès accomplis dans l'exécution du programme annuel d'exécution pour 2004. La comparaison entre les activités prévues dans le dernier programme annuel d'exécution, approuvé en 2004, et les activités effectivement réalisées montre des divergences importantes. Les programmes de formation destinés aux techniciens-frigoristes et le projet national additionnel de récupération et de recyclage des frigorigènes – prévus pour 2004 – n'ont pas encore été entamés. Des études sont réalisées actuellement dans le cadre d'une autre activité. Les activités prévues pour 2004 requièrent des dépenses de l'ordre de 1 895 062 \$US, dont 652 644 \$US (34.4%) ont été soit dépensés ou engagés en 2004.

6. L'ONUDI a inclus un programme annuel d'exécution pour 2005 avec le dépôt de la demande de financement de la deuxième tranche du plan national d'élimination des CFC pour le

compte du Venezuela. Le programme annuel d'exécution que l'ONUDI a soumis pour le compte du Venezuela, suit – en principe – le format prévu dans l'accord liant le Venezuela et le Comité exécutif. Sur les 1 631 831 \$US affectés au programme 2005, 1 460 000 \$US (89,5%) sont prévus pour le projet national additionnel de récupération et de recyclage des frigorigènes, étant donné que les activités 2005 sont un prolongement du programme de 2004. En 2004, le financement prévu pour cette activité était de 867 100 \$US; cependant aucun décaissement n'a été fait. La somme totale prévue pour cette activité spécifique, en 2004 et 2005, représente 37,3% du financement total approuvé en principe pour le plan national. Le plan annuel fournit une description détaillée des activités et des financements qui leur sont alloués. En revanche, le chapitre 1 "Réalisation de la première tranche" indique que les besoins sont en cours d'évaluation.

OBSERVATIONS ET RECOMMANDATION DU SECRETARIAT

OBSERVATIONS

7. A la date de rédaction du présent document, trois des quatre conditions préalables pour l'approbation des tranches annuelles, et qui sont reprises au paragraphe 3 ci-dessus, ne semblent pas avoir été satisfaites. Il s'agit de la condition de vérification, de l'application du programme annuel de l'année précédente et de la présentation d'un programme annuel d'exécution pour l'année en cours qui remplisse les conditions d'approbation. Les questions qui relèvent des conditions non encore satisfaites sont examinées ci-après:

- (a) *Vérification de la consommation:* La vérification des objectifs de consommation requiert, dans le cas du Venezuela en tant que pays producteur de CFC, la vérification de la production, des importations et des exportations. L'ONUDI, étant elle aussi responsable du projet du secteur de production au Venezuela, n'a pas présenté de rapport de vérification des chiffres de production de l'année 2004.
- (b) *Exécution du programme annuel de l'année précédente:* Les faibles montants décaissés au titre du programme annuel d'exécution pour 2004 et le contenu du rapport montrent que le Venezuela n'a pas réalisé – de manière significative – toutes les actions prévues. Dans l'étude documentaire sur l'évaluation des plans nationaux d'élimination, le haut responsable chargé de l'évaluation indique que "le décaissement est et doit être soumis à la pertinence des activités prévues dans les programmes annuels et l'imposition de conditions préalables par les accords ne devrait pas précipiter l'engagement de dépenses sur des activités mal préparées et qui demandent beaucoup d'équipement." Le Secrétariat voudrait souligner que la décision du Venezuela et de l'ONUDI d'étudier attentivement et de dépenser avec prudence les fonds alloués à l'élimination des CFC, dans le cas du Venezuela, est probablement l'approche la mieux indiquée.

(c) *Programme annuel d'exécution de l'année en cours:* Le programme annuel d'exécution pour 2005 ne prend pas en compte les fonds reportés et provenant de la première tranche et propose des activités fondées sur des données désuètes, sachant que l'étude est en cours de réalisation.

8. Au regard du montant de 1 242 418 \$US qui se trouve encore dans les comptes de l'ONUDI, au titre du reliquat de l'année dernière, soit 65,6% du montant initial, le Secrétariat estime que l'ONUDI ne devrait pas effectuer de décaissement avant la soumission d'un programme annuel d'exécution suffisant.

RECOMMANDATION

9. A la lumière des clarifications ci-dessus, le Comité exécutif pourrait décider de reporter l'examen de la demande de la tranche 2005 du plan national d'élimination des CFC pour le Venezuela, jusqu'à satisfaction des conditions énoncées dans l'Accord passé entre le Venezuela et le Comité exécutif.

10. Autre alternative, le Comité exécutif pourrait envisager de:

- (a) prendre note avec appréciation que le Venezuela a indiqué que sa consommation réelle a été bien inférieure à la consommation maximale autorisée, de 3 262 tonnes PAO, pour 2004 tel qu'elle a été arrêtée dans l'Accord;
- (b) approuver un niveau de financement de 1 631 831 \$US plus 122 387 \$US en frais d'appui pour l'ONUDI pour la seconde tranche du plan national d'élimination des CFC du Venezuela;
- (c) noter que le décaissement des fonds approuvés pour l'ONUDI, aux termes de l'alinéa b) ci-dessus, ne devrait être effectué qu'une fois qu'un accord aura été passé entre le Secrétariat et l'ONUDI précisant que les conditions suivantes ont été satisfaites:
 - (i) La consommation de 2004 et le volume d'élimination annuel ont bien été réalisés et vérifiés par un rapport adéquat; et
 - (ii) La présentation d'un programme annuel d'exécution 2005 pertinent, en tenant compte des fonds provenant de la première tranche, ainsi qu'une description détaillée des responsabilités des différentes parties prenantes intervenant dans la mise en œuvre ainsi qu'une liste détaillée des activités.
- (d) prier le Secrétariat d'informer le Comité exécutif, à l'occasion de sa 46^e Réunion, des progrès accomplis et ce dans le cadre du rapport sur la mise en œuvre des projets approuvés dans le respect des conditions de reddition de comptes prévues.

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 |
|-----------------------|----------|

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.

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 |
|--|------|

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 |
|-----------------------------------|-------------------|---|------------------|

* 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 |

| | | |
|---|---------------------|---|
| <p>institutions dealing with refrigeration issues.</p> <p>To approach the national TV Channels requesting to broadcast programmes in connection with the protection of the Ozone layer.</p> | | |
| <p>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.</p> | 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 | |
| b. Technical support component (aerosol and refrigeration manufacturing, training and awareness) | 366,731 | 384,644* |
| 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 Year ¹⁾ 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 |