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Executive Committee of
the Multilateral Fund for the
Implementation of the Montreal Protocol

Twenty-second Meeting
Nairobi, 28-30 May 1997

PROGRESS REPORTS ON BILATERAL COOPERATION

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

1. Progress reports were received from the following countries that are engaged in bilateral activities: Australia, Canada, Denmark, France, Switzerland, and the United States of America.
2. Bilateral agencies phased out 204 ODP tonnes from recycling projects and disbursed US \$810,997 during the reporting period. To-date, bilateral agencies have completed 63 projects of the 98 approved projects, phased out 242 ODP tonnes, and disbursed 64 per cent of approved funds.
3. Projects completed during the reporting period include: the Canadian bilateral project in Chile, "Bromosorb Technology in Commodity Fumigation"; three French bilateral projects, "Project Preparation in Lebanon's Foam Sector", "Training and Awareness of Customs Officials in Mauritania", and "Project Preparation for Projects in the Hotel and Fishing Industries in Senegal"; and three American bilateral projects, "MAC Servicing Demonstration Project in Argentina", "Halon Leak Reduction Demonstration Project in China", and "MAC Emissions Reduction Demonstration Project in Colombia".

COMMENTS

4. The Governments of Canada and France have canceled projects during the reporting period. Canada is canceling the project "Feasibility Study to Establish a Refrigerant Conservation Programme in Sichuan Province" due to a lack of interest. The Government of Canada will be returning the US \$58,400 approved for this project to the Fund for re-programming.
5. The Government of France will cancel the project "Phasing out the Use of CFC-112 in the Electronic Industry in Malaysia" as it is submitting another project to replace this project as part of its bilateral requests to this Meeting of the Executive Committee. The US \$226,600 approved for this project will be returned to the Fund for re-programming.
6. By way of its progress report, the Government of Canada is informing the Executive Committee that it has encountered difficulties in implementing its bilateral project, "Halon Recycling and Bank Management in Brazil". The difficulties arise as a result of the Government of Brazil's desire to impose duties on the recycling equipment that is to be shipped to Brazil as part of the project. As duties are not eligible incremental costs, the Government of Canada cannot request additional funds from the Executive Committee to cover the duties that the Government of Brazil intends to apply to the equipment. Although the Government of Canada is attempting to resolve this matter, this is an issue that may require Executive Committee consideration.
7. The Government of Canada is also raising the issue of the requirements that certain developed countries have with regards to commodities entering their territory. In the case of the

recently completed project in Chile, the recycled methyl bromide cannot be used to fumigate commodities destined for the United States. Therefore, while the project has been proven effective, the equipment will not be able to be used for its intended purpose since a large amount of the commodities to be fumigated from recycled methyl bromide will not be allowed to enter the United States.

RECOMMENDATIONS

The Fund Secretariat recommends that:

1. The Executive Committee take note, with appreciation, of the progress reports of Australia, Canada, Denmark, France, Switzerland, and the United States of America;
2. The Treasurer should adjust the bilateral contributions for Canada and France as indicated above; and,
3. The Monitoring, Evaluation, and Finance Sub-Committee should address the issues raised by the Government of Canada concerning implementation difficulties.

PROGRESS REPORT OF AUSTRALIA

L Project Approvals and Disbursements

A. Annual Summary Data

As at 31 December 1996, the Executive Committee has approved 8 activities as bilateral contributions from the Government of Australia to the Multilateral Fund. Of the US \$ 741 999 approved*, US \$ 226,478 has been disbursed including completed projects. The remainder of the approved funding relates to projects approved in 1996. Bilateral contributions on an annual basis are as follows:

<u>Year</u>	<u>Amount*</u> <u>(US dollars)</u>
1992	34 974
1993	4 317
1994	66 800
1995	120 387
1996	515 521
TOTAL	741 999

* Adjusted for the return of unutilised funds.

B. Summary Data by Type (CPG, DEM, INS, INV, PRP, TAS, TRA)

Under the Secretariat's classification system, Australia's bilateral activities are distributed among the following types of projects:

Type	Number of Projects	Amount Approved * (US dollars)
Country Programmes	-	-
Demonstration Projects	3	553,908
Institutional Strengthening	-	-
Investment Projects	-	-
Project Preparation	1	40 000
Technical Assistance	1	42 000
Training	3	106 091
TOTAL		741,999

* Adjusted amount - includes any adjustments for unutilised funds.

II. Project Completions since Last Report

N/A

III. Global and Regional Project Highlights

N/A

IV. Completed and Ongoing Projects

All of the Government of Australia's bilateral activities are considered non-investment projects. Of the approved activities, the Government of Australia has completed six non-investment projects and two are classified as ongoing. Australia has not formulated any investment projects to date.

In Vietnam, no bilateral funds have been disbursed, however implementation is expected to commence by mid-1997.

In Kenya, no bilateral funds have been disbursed, however implementation is expected to commence by mid-1997.

V. Status of Project Preparation, by country

N/A

VI. Administrative Issues (Adjustments and Other Issues)

A. Adjustments

N/A

B. Other Issues

N/A

PROGRESS REPORT OF CANADA

Status Report on Canada's Bilateral Activities

I. Project Approvals and Disbursements

A. Annual Summary Data

The Executive Committee has approved eleven activities as bilateral contributions from the Government of Canada to the Multilateral Fund. Of the US \$ 2,087,350 approved*, US \$ 1,741,294 has been disbursed including completed projects. Bilateral contributions on an annual basis are as follows:

<u>Year</u>	<u>Amount*</u> <u>(US dollars)</u>
1993	\$ 700,600
1994	\$ 468,170
1995	\$ 901,580
1996	\$ 17,000
TOTAL	\$ 2,087,350

* Adjusted for the return of unutilised funds.

B. Summary Data by Type (CPG, DEM, INS, INV, PRP, TAS, TRA)

Under the Secretariat's classification system, Canada's bilateral activities are distributed among the following types of projects:

Type	Number of Projects	Amount Approved* (US dollars)
Country Programmes		
Demonstration Projects	3	1,168,580
Institutional Strengthening		
Investment Projects		
Project Preparation		
Technical Assistance	4	637,880
Training	3	280,890
TOTAL		2,087,350

- Adjusted amount--includes any adjustments for unutilised funds.

II. Project Completions since Last Report

Since the last progress report, the Government of Canada has completed the following project:

Project Number	Project Title	Remarks/Lessons Learned
CHI/FUM/15/DEM/6	Bromosorb Technology in Commodity Fumigation	Project completed in December 1996. Over budget due to considerable delays in implementation. Project could be replicated in other countries, however there is a need to address import requirements for methyl bromide fumigation in countries such as the U.S.

III. Global and Regional Project Highlights

n/a

IV. Completed and Ongoing Projects

All of the Government of Canada's bilateral activities are considered non-investment projects. Of the eleven approved activities to date, the Government of Canada has completed nine and two are classified as ongoing.

V. Status of Project Preparation, by country

n/a

VI. Administrative Issues (Adjustments and Other Issues)

A. Adjustments

The project "Feasibility study to establish a refrigerant conservation programme in Sichuan province was cancelled due to lack of interest from China. The Government of Canada will be returning the US \$58,400 to the Fund for re-programming.

B. Other Issues

In the case of the Halon Recycling and Bank Management in Brazil (BRA/HAL/19/DEM/47) a problem has arisen with regards to duty, federal and state tax. The Government of Brazil has stated that it will impose duty on the recycling equipment that is to be shipped to Brazil as part of this project. The Government of Canada cannot request additional monies from the Fund to pay duty on its bilateral projects, as duty is not an eligible cost. A decision was taken at the 10th Meeting stating that the Multilateral Fund would not finance costs such as taxes, duties or other transfer payments (UNEP/OzL.Pro/ExCom/10/39). Environment Canada is currently investigating

options to resolve this matter, however, this is an issue that may require the Executive Committee's attention.

Another issue that the Executive Committee should consider are the requirements that certain developing countries have with regards to commodities entering their territory. This is particularly important in the case of recycled methyl bromide projects, such as the Chile Bromosorb Technology in Commodity Fumigation demonstration project (CHI/FUM/15/DEM/6). Whereas the technology has been proven effective and is currently installed in a fumigation plant outside of Santiago, the problem lies with the US Department of Agriculture's acceptance of recycled methyl bromide as an adequate treatment for produce entering the country. As of yet, the USDA has not recognized recycled methyl bromide as acceptable in meeting their requirements.

Annex I Country Developments and Institutional Strengthening Unit Highlights

A. Country Developments

Brazil

The Halon Recycling and Bank Management Project in Brazil started in October with an organizational meeting in Sao Paulo. This meeting finalized the scope of work and established a working group to act as advisers for the remainder of the project.

Project implementation is delayed due to the Government of Brazil's imposition of duty, federal and state tax on the halon recycling equipment. Environment Canada is currently negotiating with the Brazilian authorities to obtain exemption for the equipment. As soon as the issue is resolved, the equipment will be sent to Brazil and the project workshops will continue as planned.

Chile

In December 1996, the Bromosorb equipment was installed in David del Curto fumigation plant in Kalinka (approx. 45 minutes from Santiago). Testing on both an empty chamber and a chamber containing a few pallets of plums was conducted by an independent expert. Generally speaking, the testing showed promising results. After 10 minutes, the average return rate of methyl bromide to the Bromosorb equipment was 84.4%, after 20 minutes, the rate increased to 86.9%. This slightly lower than expected return rate was most likely due to a gas leak that was identified early in the testing.

Venezuela

Phase II of the Halon Recycling and Bank Management is on schedule. A workshop for the fire protection industry was held June 6-9 in Caracas and was well attended. The Halon 1301 recycling equipment was shipped to Venezuela at the end of July and was successfully installed in August. Three more workshops are planned as part of this project.

B. Institutional Strengthening

n/a

PROGRESS REPORT OF DENMARK

ROYAL DANISH MINISTRY OF FOREIGN AFFAIRS

PROGRESS REPORT

I. Project Approvals and Disbursements

A. Annual Summary Data

The Executive Committee has approved, in July 1995, one activity in China amounting to a total of \$205,000 as bilateral contributions from the Government of Denmark to the Multilateral Fund against its 1995 contributions. Of the total amount, \$18,080 has been disbursed as at 31 December 1996. A contract for \$96,356 was unfortunately delayed for administrative reasons; this is expected to be disbursed during first quarter of 1997.

B. Summary Data by Type (CPG, DEM, INS, INV, PRP, TAS, TRA)

Under the Secretariat's classification system, this bilateral activity is classified as Technical Assistance/Investment project.

II. Project Completions since Last Report

N/A.

III. Global and Regional Project Highlights

N/A.

IV. Completed and Ongoing Projects

This contribution is considered a non-investment project and is ongoing. Project activities are now expected to be completed by second quarter of 1997.

V. Status of Project Preparation, by country

N/A.

VI. Administrative Issues (Adjustments and Other Issues)

A. Adjustments

N/A.

B. Other Issues

N/A.

PROGRESS REPORT OF FRANCE

I. Approbation de projets et décaissements:

A. Données annuelles:

Le Comité Exécutif a approuvé 23 activités comme contribution bilatérales du Gouvernement français au Fonds Multilatéral. Sur les 1 564 965* dollars US approuvés au 31 décembre 1996, 315 719 dollars US ont été décaissés, y compris les activités achevées. La répartition sur une base annuelle des contributions bilatérales est comme suit:

<u>Année</u>	<u>Montant*</u> <u>(US dollars)</u>
1994	241 036
1995	366 105
1996	957 824
TOTAL	1 564 965

* Montants ajustés par rapport aux fonds non décaissés.

B. Classification des contributions par type (CPG, DEM, INS, INV, PRP, TAS, TRA)

Selon le système de classification du Secrétariat, les activités bilatérales de la France sont réparties selon les types suivants de projets:

Type	Nombre de Projets	Montants approuvés (US dollars)
Programmes de pays (CPG)	2	60 806
Projets de démonstration (DEM)	-	-
Renforcement Institutionnel (INS)	1	38 874
Projets d'investissement (INV)	8	1 075 072
Préparation de projets (PRP)	7	179 257
Assistance technique (TAS)	2	160 000
Formation (TRA)	3	50 956
TOTAL	23	1 564 965

* Montants ajustés par rapport aux fonds non décaissés.

II. Projets complétés depuis le dernier rapport:

Depuis le dernier rapport de progression des projets, le Gouvernement français a achevé les projets suivants:

Référence du projet	Titre du projet	Remarques / 1
ASP/LBB/19/PRP/7	Préparation de projets et assistance technique dans le secteur de la mousse	6 projets de reconversion d'industries libanaises produisant de la mousse ont été soumis et approuvés lors de la 20ème réunion du Comité Exécutif du Fonds Multilatéral.
AFR/MAU/14/TRA/3	Formation et sensibilisation du personnel en charge des tâches de codification et d'identification des Substances Appauvrissant la couche d'Ozone et des appareils en contenant	Cette formation a eu lieu du 02 au 04 novembre 1996. Plus de 20 personnes ont suivies cette formation (principalement des officiers de haut niveau du service des Douanes). Il est maintenant possible de mettre en place la réglementation nécessaire pour suivre les importations et distributions des Substances Appauvrissant la couche d'Ozone et des appareils en contenant.
AFR/SEN/19/PRP/6	Préparation de projets dans les secteurs de l'hôtellerie et de la pêche et recyclage.	- la partie concernant la formation des techniciens frigoristes qui n'avaient pu être formés lors des sessions précédentes a été soumise et approuvée par le Comité Exécutif fin décembre 1996, - en ce qui concerne les autres projets, trois difficultés sont apparues: * problème de coordination avec l'ONUDI qui est en cours d'élaboration d'un programme national de récupération et de recyclage, * besoin d'une clarification par rapport aux données fournies pour l'élaboration d'un projet de démonstration de reconversion dans la pêche et l'hôtellerie, * refus du Sénégal de mettre en place un plan de gestion du froid.

III. Remarques sur les projets globaux et régionaux:

n/a

IV. Projets complétés et en cours:

Sur les 23 activités bilatérales approuvées: 8 sont des projets d'investissement (aucun n'est encore complété), les autres sont des activités de préparation de projets, programmes de pays, assistance technique et projet de renforcement institutionnel.

6 activités ont été achevées et 17 sont en cours.

V. Rapport d'état d'avancement des projets de préparation par pays:

Les préparations de projets au Liban (mousse) et au Sénégal ont été achevées.

Des activités de préparation de projets sont en cours dans 4 pays : Iran, Liban (2), Maroc (2) et Vietnam. Les deux projets du Liban et un au Maroc (recyclage) devraient être finalisés pour la 22ème réunion du Comité Exécutif.

VI. Aspects administratifs (ajustements et autres aspects)

Tous les ajustements ont été inclus dans la feuille de calcul (voir annexe 2)

N/A

Annexe I Remarques sur l'exécution des Programmes de pays et du projet de renforcement institutionnel:

A. Programme de pays:

Mauritanie

Reconversion des installations commerciales utilisant des CFC dans le secteur de la pêche:

L'appel d'offres a été rédigé. Les consultations des entreprises sont achevées. Une entreprise a été sélectionnée pour exécuter le projet. Cette exécution est prévue pour mai 1997 (période de repos biologique au cours de laquelle les entreprises ne sont pas en activités).

Formation des techniciens du froid:

Projet en attente de clarification des experts qui devront assurer cette formation.

Formation et sensibilisation du personnel en charge du suivi et de l'identification des SAO et des appareils qui en contiennent:

La formation a eu lieu du 02 au 04 novembre. Le nombre de participants a été de plus de 20 personnes, essentiellement des officiers de haut niveau des Douanes.

Un manuel de formation a été rédigé à cette intention.

Malaisie

Le projet est en cours de modification pour tenir compte de la situation actuelle de consommation des entreprises visées par le projet.

B. Renforcement Institutionnel:

Mauritanie

Le contrat entre le Ministère de l'Environnement et de l'Aménagement Rural et de la Caisse Française de Développement a été signé.

Les fonds nécessaires au fonctionnement du Bureau Ozone pour les six premiers mois de 1996 ont été débloqués, ainsi que les fonds pour l'assistance technique pour la mise en place du Bureau Ozone.

Le Bureau Ozone est désormais opérationnel et mène les activités normales incluses dans la description du projet.

PROGRESS REPORT OF SWITZERLAND

12 March 1997

Switzerland
Progress report and financial reporting for bilateral activities

I. Project Approvals and Disbursements**A. Annual Summary Data**

The Executive Committee has so far approved *one* activity as bilateral contributions from the Government of Switzerland to the Multilateral Fund. Of the US \$ 242'600 approved*, US \$ 103'453 has been disbursed including completed projects. Bilateral contributions on an annual basis are as follows:

<u>Year</u>	<u>Amount*</u> (US dollars)
1994	
1995	242'600.-
1996	
TOTAL	242'600.-

* Adjusted for the return of unutilised funds.

B. Summary Data by Type (CPG, DEM, INS, INV, PRP, TAS, TRA)

Under the Secretariat's classification system, the Switzerland's bilateral activities are distributed among the following types of projects:

Type	Number of Projects	Amount Approved* (US dollars)
Country Programmes		
Demonstration Projects		
Institutional Strengthening		
Investment Projects		
Project Preparation		
Technical Assistance	1	242'600
Training		
TOTAL		242'600

* Adjusted amount--includes any adjustments for unutilised funds.

II. Project Completions since Last Report

“N/A” (not applicable)

III. Global and Regional Project Highlights

The project RDCOH, “Argentina/Provision of technical assistance and training on safe designs of hydrocarbon based domestic and commercial refrigeration appliances and of PUR foam installations at factory level” (project number UNEP/OzL.Pro/ExCom/19) is nearing completion in summer 1997. Within the framework of the Indo/Swiss/German RDCOH technical assistance project ECOFRIG (so far additional bilateral) a manual for Safe Design and Manufacturing of Commercial Refrigeration Appliances using Hydrocarbon Refrigerants has been drafted. Principles of conversion outlined in this manual have been discussed with Argentinian partners (INTI) during a visit at commercial appliance manufacturers premises in UK in early January 1997. During April 97 workshop in Rosario/ARG possibilities to use an adjusted spanish version of the manual to support the phase out strategy in the ARG commercial sector will be discussed. The characterization of safe working practices helped in gaining compressor manufacturers (Embraco Europe/Danfoss) becoming prepared to supply R600a compressors to manufacturers in Argentina (confidence building measure through technology partner, request of compressor manufacturers to implement a follow on technical assistance programme in the field of servicing). A related phase 2 project proposal will be submitted to MFS prior to 22nd ExCom meeting.

IV. Completed and Ongoing Projects

All of the Government of Switzerland’s bilateral activities are considered non-investment projects.

Of the one approved activity, the Government of Switzerland the one activity with ARG is classified ongoing. One non-investment project is scheduled for completion in late summer 1997.

V. Status of Project Preparation, by country

Project preparation activities are underway in two countries: Argentina and India. In Argentina, 43 per cent of the funds allocated have been disbursed and one technical assistance / investment project proposal is expected to be submitted to the 22nd meeting of the Executive Committee in the RDOH/RCOH sector. In India, a mission is scheduled for May 1997 to assess eligibility of investment project components prefinanced and planned (GODREJ-GE and VOLTAS/ALLWYN). An investment project proposal may be submitted to the 23rd Executive Committee meeting in the RDOH sector for implementation by Switzerland and Germany.

VI. Administrative Issues (Adjustments and Other Issues)

“N/A” not applicable.

A. Adjustments

“N/A” not applicable.

B. Other Issues

Safety bonus for commercial sector refrigeration projects: Preappraisals were conducted in Argentina and planning for pilot implementation are ongoing in India (local conversion of RCOS approved investment projects into RCOH projects). These project preparation activities reveal that in the refrigeration part safety cost occur in the same order of magnitude as in the domestic sector. In the foam part for smaller scale manufacturers pentane causes higher conversion safety cost than +35% as compared to HCFC 141b. The safety bonus as granted to the domestic sector is perceived a precondition for being in a position for preparing investment projects for smaller scale commercial sector companies (10'000 to 20'000 units per year) using final technologies.

Annex I Country Development Argentina**A. Country Development Refrigeration Sector**

The implementation of the refrigeration sector projects has been delayed for administrative reasons. This delay could be utilized for the technical assistance interaction with the sector in the September 1996 Buenos Aires Workshop (foam and refrigeration part). It is expected that project implementation is speeding up from spring 1997 onwards. Next steps in preparing service sector training and commercial sector project are therefore put to the agenda. In servicing hydrocarbon know-how shall be provided through the bilateral route into a UNEP frame project for training the service sector.

B. Work progress

On September 19/20, 1996 a first workshop organized by OPROZ/INTI and supported by INFRAS on „Uso de Hidrocarburos para la producción de refrigeradores domésticos y espumantes de poliuretano rígidos“ has been held at INTI in Buenos Aires and has been attended by 40 participants from all important manufacturers from the domestic and commercial refrigeration sector and from the local agencies.

Achievement status under the 5 objectives of the co-operation is reported below. Phase 1 shall be completed by May/June 1997 through a final workshop organized by INTI involving the stakeholders attending the September 1996 workshop.

- a. *To implement a pilot conversion for one selected refrigerator model to isobutane, with an emphasis on safe design:*

Based on a cooperation agreement between INTI, INFRAS, Frimetel SA Rosario and Liebherr Industrieanlagen, Bulle Switzerland a single door 272 litre bottle cooler has been selected as pilot-scheme model. The conversion steps including performance testing at INTI have been agreed among the parties on September 23rd, 1996. By December 5, 1996 Liebherr had submitted the first report to Frimetel and INTI comprising conversion guidelines for the Argentinean partners. Suppliers of crucial components have been identified. A second technical meeting with a practical conversion workshop involving more than one manufacturer is scheduled for April 1-8, 1997. Hydrocarbon refrigerant and a calibration gauge for implementing safety tests have been procured and shipped to INTI.

- b/c. *Comparative study on application of safety standards in cyclopentane based PUR foam conversions, prepare training manual based on practical experiences:*

The results of the comparative study on relevant European and Argentinan safety standards have been documented and presented as a draft training manual in the workshop of 20 September (INTI/TÜV). TÜV has visited 4 manufacturing plants to be converted to cyclopentane (September 1996). The TÜV report to INTI on safety related codes which need special attention is due by end of December 1996. For institutional strengthening, INTI has participated in the TÜV commissioning of a cyclopentane plant in Europe and India (June 96). A next round of interaction based on pentane project implementation experience is foreseen for spring 1997.

- d. *To train manufacturers in adopting the guidelines provided by the manuals in two workshops, disseminate information and contribute to institutional strengthening:*

A first round of training in test methodology for safe conversion of appliances based on isobutane refrigerant according to the norm IEC 335-2-24 (3rd edition/draft amendment) and IEC 79-15 (explosion proof electrical components) has taken place in the first workshop of September 1996. INTI shall resume the role of a certified national lab to endorse conformity of test results with the above mentioned norms. A technical meeting with INTI facilitated by Calor Gas for reviewing the experiences gained with the British Standard BS 4434 is scheduled for January 7/8 1996 in UK.

- e. *To identify feasible government policy support options in implementing safety codes for cyclopentane installations in a cost effective manner:*

A check list for screening safety of visited pentane foam project sites for the approval of procurement order of safety related equipment by INTI has been worked out by TÜV. The dialogue among institutions concerned with plant safety in Argentina is in progress. Technical assistance is likely to play a key role beyond phase 1.

C. Outlook to phase 2

A project proposal for phase 2 will be worked out until mid April 1997. The planned fields of intervention are demonstration conversions to ozone and climate friendly refrigerants in cooperation with small scale enterprises of the commercial sub-sector (option of a pilot investment project based on hydrocarbons or possibly ammonia) and technical guidelines for servicing of hydrocarbon based domestic and commercial appliances. Projected grant amount: USD150'000-250'000.

PROGRESS REPORT OF THE UNITED STATES OF AMERICA

STATUS REPORT ON BILATERAL ACTIVITIES OF THE GOVERNMENT OF THE UNITED STATES

In accordance with Executive Committee decisions requiring progress reports on bilateral activities, this report provides the status of bilateral activities through 31 December 1996 under implementation by the Government of the United States.

During the second half of 1996, the United States was primarily involved in activities in Argentina, Chile, China, Colombia, Costa Rica, Dominican Republic, Philippines, Thailand, Uruguay, and Vietnam. The United States received approval for a new mobile air-conditioning (MAC) servicing demonstration project in Vietnam, and completed substantive work on an Argentina/Uruguay MACs demonstration project, a Colombia MAC project, and a China halon leak reduction project.

I. Project Approvals and Disbursements

A. Annual Summary Data

The Executive Committee has approved 56 activities as bilateral contributions from the Government of the United States to the Multilateral Fund. Of the US \$ 10,244,412* approved including approvals through the 21st Meeting, US \$7,827,974 has been disbursed including completed projects. Bilateral contributions on an annual basis are as follows:

<u>Year</u>	<u>Amount (US dollars)</u>
1991	480,000
1992	1,669,000
1993	1,413,110
1994	2,711,000
1995	3,671,302
1996	300,000
TOTAL	10,244,412

B. Summary Data by Type (CPG, DEM, INS, INV, PRP, TAS, TRA)

Under the Fund's classification system, the United States' bilateral activities are distributed among the following types of projects:

Type	Number of Projects	Amount Approved* (US dollars)
Country Programmes	4	138,000
Demonstration Projects	17	2,725,437
Institutional Strengthening	1	350,000
Investment Projects	2	2,378,865
Project Preparation	12	1,351,000
Technical Assistance	7	1,227,110
Training	13	2,074,000
TOTAL	56	10,244,412

* Amount includes corrections (see Aug. 1996 progress report) but not adjustments for unutilized funds.

II. Project Completions since Last Report

Since the last progress report, the Government of the United States has completed the following projects:

Project Number	Project Title	Remarks/Lessons Learned
ARG/REF/16/ DEM/22	MAC servicing demonstration	Project successfully completed. Total annual estimated emission reductions are 20.4 MT ODP-weighted. The project trained technicians from 24 service shops from Argentina and 5 service shops from Uruguay in a multilateral cooperative effort. Final report is under preparation. The revised estimated project cost effectiveness at \$15.50/kilogram is significantly better than the original application estimate of \$30/kilogram.
CPR/HAL/16/ DEM/121	Halon leak reduction demonstration	Project successfully completed in cooperation with China's Ministry of Public Security (MPS) and UNDP. Equipment changes (installation of improved quality seals and hoses) at the Foshan halon production plant and the Panyu halon extinguisher factory have resulted in annual halon 1211 emissions reductions of 73.9 MT and demonstrated significant cost savings of raw materials purchases by factories. In addition, improved technician equipment maintenance practices especially for compressors contributed to reducing halon leakage. MPS presented results of project to factory directors and technicians at annual fire protection meeting in Guangzhou, Dec. 16-19, 1996. MPS proposed implementing similar leak reduction measures, to be financed by cost savings, for factories not slated for near-term shutdown. Final report under preparation.
COL/REF/15/ DEM/9	MAC emissions reduction demonstration program	Recovery/recycle machines, leak detectors, and other emissions-reduction equipment was delivered to 22 repair shops in Bogotá and Barranquilla in June 1996, and a training workshop was held in each city attended by a total of 50 technicians. A project evaluation mission was conducted in September 1996. Project participants include shops which repair automobiles, buses, and refrigerated trucks. Project is reducing 11.5 MT of CFC-12 emissions annually. In addition, three follow-up technical support visits were conducted to each participating shop during the six months following the workshop to provide retraining, answer questions, and eliminate any obstacles to successful operation of the equipment. The Ozone Unit is collecting payments of \$350 from each participating shop, and these payments, along with remaining project funds, will be used to purchase equipment for a small number of additional shops in 1997. The original project application envisioned the participation of 10 to 15 service shops for the funds approved; with the completion of the second stage of the project, over 25 shops will have received equipment and training. The estimated project cost effectiveness is \$19.60/kilogram.

III. Global and Regional Project Highlights

N/A

IV. Completed and Ongoing Projects

Of the 56 approved activities, the Government of the United States has completed 44 and 12 are classified as ongoing. All of the United States' bilateral activities under the Multilateral Fund are, in the terminology required for this report, considered "agency implemented activities" with "disbursements during implementation". All activities are also considered "objective-sensitive" except the institutional strengthening project in Mexico which is "time-sensitive".

All of the Government of the United States' bilateral activities are, in the terminology required for this report, considered non-investment projects with the exception of "Deployment of halon 1211 recovery/recharge machines"(CPR/HAL/12/INV/59) and "Staged project to produce CFC-free refrigerators in China (stage 1b and 2)"(CPR/REF/16/INV/116) which are expected to phase-out 258 MT (ODP-weighted).

43 of the 54 non-investment projects have been completed. Of the two investment projects, the "Deployment of halon 1211 recovery/recharge machines"(CPR/HAL/12/INV/59) has been completed; the "Staged project to produce CFC-free refrigerators in China (stage 1b and 2)"(CPR/REF/16/INV/116) is ongoing.

V. Status of Project Preparation, by country

The United States has remaining project preparation funds allocated for China and a Central America/Caribbean project. Approximately 50 percent of allocated funds for China were disbursed to conduct four missions with MPS, prepare two halon projects, provide guidelines and technical assistance for sectoral strategy preparation, initiate project preparation for two additional projects, and support ongoing communications with China. Further activities have not yet been identified because of outstanding policy issues and the potential impact of the preparation of the halon sector strategy in China.

Project preparation funding was approved intersessionally prior to the 19th Executive Committee meeting for a Central America/Caribbean MAC project preparation activity. Initial actions include a mission to Barbados, Saint Lucia, and Trinidad and Tobago in November 1996, extensive research by telephone from the US, and planning for a second mission to Central America and additional Caribbean countries in March/April 1997. By identifying and researching each country in the region having significant refrigerant use in MAC servicing, the activity will develop a comprehensive strategy of coordinated projects to most cost-effectively achieve emissions reductions in the sector. As a result of the activity, specific projects are expected to be submitted to the Executive Committee during 1997, as well as a comprehensive report on the opportunities for cost-effective emissions-reduction activities in the region.

VI. Administrative Issues (Adjustments and Other Issues)

From the last progress report (Aug. 1996) a net adjustment of \$324,613 is credited to future approvals.

Annex I Country Development and Institutional Strengthening Unit Highlights

A. Country Developments

Argentina

EPA and the government of Argentina have been working over the last year to determine cost-effective means both inside and outside the Multilateral Fund to provide equipment and training to additional shops that were identified during phase 1 of the project. EPA and Argentina have had ongoing discussions about this approach with the Inter-American Development Bank (IADB), which has expressed its willingness to consider offering loan capital for such a proposal. Argentina is now considering whether to pursue this second phase MAC project funding in the form of a loan from the IADB.

Chile

This project is nearing completion. A workshop was held in Santiago in late October 1996. CONAMA, the national environmental agency, held a press conference where the Executive Director of CONAMA made remarks and demonstrated the use of the recovery/recycling machines to the press. The project received favorable press attention. The evaluation mission is scheduled for January 1997. A final report is underway. Total lapsed project time from initial mission through equipment procurement and delivery, training workshop, and evaluation mission will be nine months.

China

MACs:

EPA and UNDP are cooperating with China's Ministry of Machine Industry (MMI) in a second phase MAC project, approved intersessionally in early 1996. The project will focus on southern China, where the MAC servicing season is longer, mobile air-conditioning is more widespread, and the industry is organized differently than in Beijing, site of the first project. Shanghai, Shenzhen, and Guangzhou were selected for the first research mission due to comparatively high levels of MAC sector CFC consumption, higher concentrations of private sector MAC servicing enterprises, and the higher level of development of the automotive industry in these cities. Efforts to design and organize the project are continuing, with a workshop and equipment delivery planned for 1997.

Commercial refrigeration:

Bids have been received by UNOPS, which is collaborating with EPA in the implementation of this project. The project's goal is to reduce emissions through improved leak detection, system repair and maintenance, and refrigerant recovery/recycling. The project will focus on two predominant refrigeration servicing companies as well as in-house supermarket service teams. Equipment delivery and training are planned for May 1997. Two repair companies, 30 supermarkets, Chinese industry officials from the Ministry of Internal Trade, and the Ministry of Internal Trade Design & Research Institute are participating in the project.

Domestic refrigeration:

Conversion of the refrigerator line is complete and safety certification for the line has been issued. The line is currently producing cyclopentane-152a/22 refrigerator models pending final IEC safety certification of the intended cyclopentane/isobutane refrigerator model. The last tranche of funding for the project will be forthcoming following final review of receipts, verification that old equipment has been destroyed to avoid redeployment, safety certification for the isobutane/cyclopentane models, and initial production of these models.

Colombia

This MAC servicing demonstration project has been implemented with Colombia's Ozone Unit and UNDP/UNOPS. Recovery/recycle machines, leak detectors, and other emissions-reduction equipment was delivered to 22 repair shops in Bogotá and Barranquilla in June 1996. The project includes shops which repair automobiles, buses, and refrigerated trucks, and is reducing 11.5 MT of CFC-12 emissions annually. 50 technicians attended workshops held in the two cities, and an evaluation mission was conducted in September 1996. Colmotores, the local General Motors affiliate, hosted the Bogotá training workshop, and its technicians also participated in the training. The Ozone Unit is collecting payments of \$350 from each participating shop, and these payments, along with remaining project funds, will be used to purchase equipment through UNOPS for a small number of additional shops in 1997.

As a result of the project, a new distributor of CFC recovery/recycling equipment has been established in Colombia. The project has also succeeded in eliminating the use of small (340 gram) cans of R-12 in the participating shops. These cans often leak, and can result in inaccurate recharging and unnecessary refrigerant emissions. Because of the project, Colombia's largest refrigerated transport and bus service company has developed a closed-loop flushing system to prevent loss of several hundred kilograms annually of CFC-11 used in cleaning bus and truck refrigeration systems.

Costa Rica

Missions to perform research, recruiting and planning for the MACs servicing demonstration project were conducted in September and November 1996. Innovative approaches are being explored which draw on EPA's experience to respond to local circumstances and maximize emissions reductions. The project will be complemented by a regulation being adopted by the government which imposes a tax on CFC purchases, requires CFC recycling, and waives import duties and sales taxes on recovery/recycling equipment. The project will likely include shops that repair cars, refrigerated trucks, and refrigerated containers. It is expected that equipment will be delivered beginning in May 1997.

Dominican Republic

Mobile Air Conditioning (MAC):

The project is now moving into the second procurement, self-financed by payments collected from the 20 shops that participated in phase I. The ozone protection unit of the Dominican government will now purchase an additional 7 recovery/recycling machines for mobile air conditioning service shops. Equipment procurement, delivery, and additional training by the local technical support provider should all be completed by May 1997.

Commercial Refrigeration:

EPA and the Dominican government will hold a project interest meeting in April 1997 in Santo Domingo with all of the local project partners and with prospective participating servicing shops and reclaimers. Equipment delivery and training are scheduled for July 1997. The government has identified over 80 candidate commercial refrigeration recovery/recycling service shops for the training and 4 potential refrigerant reclaiming enterprises. The project focuses on recovering refrigerant from supermarkets and small convenience stores. As service shops in the Dominican Republic do not specialize in any one subsector of commercial refrigeration, the project is also likely to yield benefits through some level of domestic refrigeration recovery/recycling.

Philippines

A MAC demonstration project was approved by the Executive Committee in November 1995. The project will be conducted in metropolitan Manila, where vehicle air conditioning is very widespread and the number of R-12 MAC-equipped vehicles is growing rapidly. The project is being organized with the Environmental Management Bureau (EMB) and a local distributor of recovery/recycle equipment.

The project is being conducted in two stages, and seeks to make significant use of private sector participation. The first stage will include approximately 30 repair shops. The smaller second stage will be financed in part with participant cost-sharing payments to be collected during the first stage. Depending on their performance during the first stage, the local equipment distributor will assume increased responsibility for project implementation by recruiting and training the second-stage shops. This strategy will reduce project organization costs, which will free up money for additional equipment purchases, increase the number of participating shops, and improve the cost-effectiveness of the project. Missions have been conducted to research, plan, and organize the project, and equipment will be delivered to shops in May. The stage-one training workshop will be conducted in April 1997.

Thailand

At the invitation of the World Bank, EPA participated in a Bank-sponsored project mission in December 1996 to work on the Thailand MACs project. The purpose of the mission was to review the project in detail with the Bank, the Bank's local project manager, the Thai Department of Industrial Works, and the Industrial Finance Corporation of Thailand and identify possible opportunities for World Bank/EPA cooperation. The Bank and EPA are continuing to discuss ways that we could work cooperatively to implement the project as rapidly as possible.

Uruguay

Five MAC repair shops and 10 technicians from Uruguay participated in the Argentina MAC project training workshop held in January 1996. Uruguay does not have sufficient sector consumption for a stand-alone MAC project but the country was introduced to recovery/recycling technology and good MAC repair practices through its collaboration with Argentina and participation in the Argentina MAC project. Uruguay's participation also contributed to the cost effectiveness of the overall Argentina/Uruguay effort. The government of Uruguay has completed a final analysis on the participating MAC servicing shops, and these five shops have estimated annual emission reductions of 2.9 MT.

Vietnam

MACs:

Under the UNDP Global MAC Project, EPA participated in a UNDP-led mission in May 1996, and a bilateral MAC demonstration project was approved intersessionally by the Executive Committee in September 1996. This project is designed to include Vietnam's two principal cities, Hanoi and Ho Chi Minh City, because these cities' climate, servicing practices, and industry structure are very different. MAC servicing represents an unusually significant share of total CFC consumption in Vietnam because of the recent rapid growth in imports of R-12 MAC-equipped vehicles, and because food refrigeration is relatively new and typically uses low-ODS refrigerants. The project is being implemented with the Hydrometeorological Service of Vietnam (HMS), EPA, and UNDP (UNOPS). The first implementation mission will occur in March 1997. To utilize project resources most efficiently, EPA is coordinating the implementation of the MAC project with the UNDP/Australia commercial refrigeration projects, which may enable the projects to share missions, local support, and other resources.

Vietnam (continued)

Commercial Refrigeration:

With the UNDP May 1996 mission, EPA began collaborating with UNDP and the Australia Environmental Protection Agency in the preparation of their commercial refrigeration servicing projects, approved at the 20th meeting of the Executive Committee. Project design and implementation plans draw on EPA's experience in the commercial refrigeration servicing sector. UNDP's initial project implementation mission in March 1997 will be conducted in conjunction with the MAC project initial mission.

B. Institutional Strengthening

N/A