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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-second Meeting
Ouagadougou, 6-8 December 2000

BILATERAL COOPERATION

The Fund Secretariat received the following requests for bilateral cooperation:

PROJECT TITLE	BILATERAL AGENCY
National halon management and banking program (India)	Australia
Customs training programme (Benin)	Canada
Formation des enqueteurs et inspecteurs de l'environnement (Benin)	Canada
Code de bonne pratique des frigoristes (Benin)	Canada
Training in good practices in refrigeration servicing (Benin)	Canada
National halonmanagement and banking program (India)	Canada
Translation, in French and Spanish, of the Executive Committee approved training manual entitled Customs Officer Training on Substances that Deplete the Ozone Layer	Canada
Technical assistance for cold storage – training and demonstration project (Morocco)	France
Refrigeration and global environment – evaluation of equipment modernization study (Africa region)	France
Conversion of S.O.F.T.P.M. (Algeria)	Germany
Conversion of Matelas souf to LCD technology (Algeria)	Germany
Phase-out of the use of methyl bromide in grain storage (Egypt)	Germany
Retrofit of commercial units (Gambia)	Germany
Preparation of a national strategy to reduce and eliminate the use of CFC refrigerants in the servicing sector (India)	Germany
Project preparation/technical assistance in soil fumigants (methyl bromide) (Syria)	Germany

PROJECT TITLE	BILATERAL AGENCY
Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Martchem Industries Limited by conversion to methylene chloride (Nigeria)	Japan
Phasing out of CFC-11 in the manufacture of flexible slabstock foam at MAC-VICO (Nig.) Limited by conversion to methylene chloride (Nigeria)	Japan
Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Eastern Wrought Iron Limited by conversion to methylene chloride (Nigeria)	Japan
Preparation of a national strategy to reduce and eliminate the use of CFC refrigerants in the servicing sector (India)	Switzerland

1. A total of 19 requests totalling US $7,059,758 for bilateral cooperation are submitted to the 32nd Meeting of the Executive Committee by Australian, Canadian, France, German, Japanese and Swiss bilateral agencies. This document contains, by bilateral agency, those projects that are before the Executive Committee for its consideration.

2. Table 1 presents a summary of the value and number of requests by bilateral agency.

Table 1

VALUE AND NUMBER OF PROJECTS FOR BILATERAL COOPERATION, BY BILATERAL AGENCY

Bilateral Agency	Amount Requested	Number of Projects
Australia	US $307,875	1
Canadian	US $714,675	6
France	US $ 135,054	2
Germany	US $5,301,553	6
Japan	US $520,601	3
Switzerland	US $80,000	1
TOTAL	US $7,059,758	19

REQUEST FROM THE GOVERNMENT OF AUSTRALIA

Introduction

3. The Government of Australia submitted, jointly with Canada, a request for bilateral cooperation for a project in India. The amount requested, plus the amount approved for Australia at the 30th Meeting, does not exceed 20 per cent of Australia's total contribution for the year 2000.

4. Table 2 presents a summary of Australia's request by project title, country, amount requested, and amount recommended. The total amount recommended, once approved by the Executive Committee, should be offset against Australia's contributions for year 2000.

Table 2

SUBMISSIONS FROM THE GOVERNMENT OF AUSTRALIA AND RECOMMENDATIONS

Project Title	Country	Amount Requested (US$)	Amount Recommended (US$)
National halon management and banking program	India	307,875	245,700
TOTAL		307,875	245,700

5. The following project evaluation sheet presents the comments and recommendations for the joint Australian/Canadian bilateral project in India.

PROJECT EVALUATION SHEET
INDIA

SECTOR: Halon ODS use in sector (1998): 220 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

Project Titles:

(a) National halon management and banking program
(b) National halon management and banking program

Project Data	**Banking**	**Banking**
Enterprise consumption (ODP tonnes)		
Project impact (ODP tonnes)	213.65	213.65
Project duration (months)	36	36
Initial amount requested (US $)	307,875	307,875
Final project cost (US $):		
Incremental capital cost (a)		465,000
Contingency cost (b)		37,200
Incremental operating cost (c)		
Total project cost (a+b+c)		502,200
Local ownership (%)	100%	100%
Export component (%)	0%	0%
Amount requested (US $)	251,100	251,100
Cost effectiveness (US $/kg.)	n/a	n/a
Counterpart funding confirmed?		
National coordinating agency		
Implementing agency	Australia	Canada

Secretariat's Recommendations		
Amount recommended (US $)	245,700	245,700
Project impact (ODP tonnes)	213.65	213.65
Cost effectiveness (US $/kg)	n/a	n/a
Implementing agency support cost (US $)	n/a	24,570
Total cost to Multilateral Fund (US $)	245,700	270,270

PROJECT DESCRIPTION

(a) National halon management and banking program in India: Australia Component
(b) National halon management and banking program in India: Canadian Component

6. This project will incorporate the following activities:

- Establishment of a Halon Critical Users Database.
- Establishment of a Halon Management Group/Advisory Forum.
- Establishment of a National Halon Banking Operation.
- Technical training for halon bank operators and major halon users etc.
- Development of Public and Technical Personnel Education and Awareness Activities.
- Development of possible Regional Halon Management and Banking Participation.

7. The halon user database is one of the key components of the project. The creation of a database will assist with the identification of systems in various segments and would significantly contribute to follow-up planning for amounts required to be retained for critical/essential uses within a potential halon banking structure. Detailed inventories of the halon installed including quantities, site and installation specification, together with the magnitude and estimated quality of halon stocks, could also simplify the overall logistical controls.

8. It is assumed that the Ministry of Environment and Forests (MOEF) will continue to be the focal point for implementing the India Halon Management Program. MOEF will establish a Halon Management Group or Advisory Forum to advise and assist MOEF in monitoring the various activities involved with the Halon Management Programme and also the halon banking project. It is envisaged that the Halon Management Group would undertake the following activities:

- Serve as a consultation forum for the proposed halon management and banking operation.
- Undertake the review of future critical use requirements.
- Be involved in keeping track of halon stock and consumption in India.
- Act as a technical assessment body to assist in the management and control of future quantities of imported halons.
- Provide independent details on National halon phaseout requirements.
- Assess and recommend balanced prices for reclaimed halon to critical users.

9. The recommended local implementing organization is the Defence Institute of Fire Research (DIFR) in New Delhi, which will also operate the halon bank. This organisation has played a key role in India's halon phaseout programme to date, including responsibility for coordinating the preparation of India's Halon Sector Strategy. It is envisaged that DIFR will carry out various activities including the following:

- Administer the halon recycling / reclamation facility.
- Receive, recycle, reclaim and store recovered halons.
- Function as match making between those having halon and others who need it.
- Coordinate training workshops and seminars.

10. It is expected that the day-to-day operation of the halon bank will eventually be able to be financed through income generated from halon recycling and the sale of reclaimed halons.

11. In terms of quantities of halons 1211 and 1301 required to be recovered and recycled in India overall, they are forecast to be in the region of approximately 2500 Metric Tonnes of Halon 1211 and in the order of 800 Metric Tonnes of Halon 1301. Additionally, there is a substantial quantity of Halon 2402 installed in many areas including mostly critical use applications such as Naval vessels, armoured tanks etc.

12. From a technical perspective, it is not possible to simply purchase one machine that is capable of recycling and reclaiming all types of halons (1211, 1301 & 2402) as the differing chemical compositions of each halon require separate filtering processes to be provided during construction of the machinery. For example, Halon 2402 has a much higher boiling point and molecular weight than either Halon 1211 or Halon 1301. While one reclamation machine will be required to cater for Halon 2402 only, it is possible to acquire a second machine which can be configured to be able to handle either Halon 1301 and/or Halon 1211.

13. An important part of the functioning of any halon management and banking operation is to ensure that sufficient detailed training has been provided in several areas. These include not only the training of the personnel who will be running the actual recycling/reclamation equipment but also those involved in field decommissioning activities. Inspection and maintenance training courses will be provided for personnel who install, certify and maintain fixed flooding halon systems and portable fire extinguishers. Fire engineering courses would also form part of the halon management program where the emphasis will be directed to the development and implementation of halon management phaseout plans for both larger halon users and/or critical halon users.

14. Public and technical personnel education and awareness activities are proposed, incorporating the preparation and distribution of brochures to be followed by workshops covering India's halon phaseout programme with particular concentration on the halon conversion projects, halon management and banking concepts, revised ozone legislation impact etc.

15. Regional cooperation will be explored during the project implementation phase, with the responsibility allocated to the planned Halon Management Group/Advisory Forum.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

16. The Executive Committee has approved 14 Indian fire extinguisher conversion projects. India's Halon Phase out Strategy was presented to the 28th Meeting of the Executive Committee. It indicated that additionally, seven industries would voluntarily implement halon phase-out during 1998-2000 with costs for conversion shared between industry and government because the cost-effectiveness of these conversion projects is above the threshold.

17. The costs and components of the halon banking project for India are consistent with previous approvals and the guidelines for halon banking (Decision 18/11).

18. The guidelines for halon banking require that "regulations facilitating production and import bans should be established within six months after the reclamation centre is set up". The proposal does not include this commitment on behalf of the Government of India.

19. It should be noted, however, that within six months of completion of all the Multilateral Fund supported halon equipment manufacturing conversion projects (scheduled for March 2001), local production of any halon based equipment, such as halon 1211 extinguishers, will be banned in India. Servicing and maintenance of existing halon-based equipment will be allowed to continue for nominated critical uses. Non-essential uses will also be allowed to continue but only for the natural service life of the equipment. Furthermore, as of 1 January 2001, import of either new or virgin halon and/or recycled product will be confined to critical uses only.

RECOMMENDATIONS

20. The Sub-Committee on Project Review may wish to recommend the approval of the Halon Banking project for India in the amounts indicated in the following table under the condition that import bans would be established within six months of the installation of the reclamation equipment provided through this project.

	Project Title	Project Funding (US$)	Support Cost (US$)	Implementing Agency
(a)	National halon management and banking program	245,700		Australia
(b)	National halon management and banking program	245,700	24,570	Canada

REQUESTS FROM THE GOVERNMENT OF CANADA

Introduction

21. The Government of Canada submitted requests for bilateral cooperation for projects in Benin, India and a global project. The amount requested, plus the amount approved for Canada at the 30th Meeting, does not exceed 20 per cent of Canada's total contribution for the year 2000.

22. Table 3 presents a summary of Canada's requests by project title, country, amount requested, and amount recommended. The total amount recommended, once approved by the Executive Committee, should be offset against Canada's contributions for year 2000.

Table 3

SUBMISSIONS FROM THE GOVERNMENT OF CANADA AND RECOMMENDATIONS

Project Title	Country	Amount Requested including Support Costs (US$)	Amount Recommended (US$)	Support Costs (US$)
Customs training programme	Benin	79,100	59,900	7,787
Formation des enqueteurs et inspecteurs de l'environnement	Benin	65,540	57,000	7,410
Code de bonne pratique des frigoristes	Benin	11,300	10,000	1,300
Training in good practices in refrigeration servicing	Benin	183,060	144,000	18,720
National halon management and banking program	India	307,875	245,700	24,570
Translation, in French and Spanish, of the ExCom approved training manual entitiled Customs Officer Training on Substances that Deplete the Ozone Layer	Global	67,800	36,000	1,440
TOTAL		714,675	552,600	61,227

PROJECT EVALUATION SHEET
BENIN

SECTOR: Refrigeration RMP — ODS use in sector (1998): 26.7 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

Project Titles:

(a) Implementation of the RMP: training of custom officials
(b) Implementation of the RMP: training of environmental inspectors and investigators
(c) Implementation of the RMP: development of code of good practice for technicians
(d) Implementation of the RMP: training of technicians in good refrigeration practices

Project Data	**RMP**			
	(a)	**(b)**	**(c)**	**(d)**
Enterprise consumption (ODP tonnes)				
Project impact (ODP tonnes)				
Project duration (months)	12	12	6	18
Initial amount requested (US $)	70,000	58,000	10,000	162,000
Final project cost (US $):				
Incremental capital cost (a)				
Contingency cost (b)				
Incremental operating cost (c)				
Total project cost (a+b+c)				
Local ownership (%)	100%	100%	100%	100%
Export component (%)	0%	0%	0%	0%
Amount requested (US $)	59,900	57,000	10,000	144,000
Cost effectiveness (US $/kg.)				
Counterpart funding confirmed?				
National coordinating agency	Ozone Unit			
Implementing agency	Canada	Canada	Canada	Canada

Secretariat's Recommendations				
Amount recommended (US $)	59,900	57,000	10,000	144,000
Project impact (ODP tonnes)				
Cost effectiveness (US $/kg)				
Implementing agency support cost (US $)	7,787	7,410	1,300	18,720
Total cost to Multilateral Fund (US $)	67,687	64,410	11,300	162,720

BENIN: REFRIGERANT MANAGEMENT PLAN

Implementation of the RMP:

(a) Training of custom officials
(b) Ttraining of environmental inspectors and investigators
(c) Development of code of good practice for technicians
(d) Training of technicians in good refrigeration practices

Background

23. In 1998, total CFC consumption in the refrigeration sector in the country was estimated at 26.7 ODP tonnes for servicing domestic and commercial refrigeration equipment (20 tonnes) and MAC units (6.7 tonnes).

24. A survey conducted in 1998 identified 360 workshops in the refrigeration servicing sector and approximately 700 technicians, mainly concentrated in the capital city and in Cotonou.

25. There are three vocational schools (Lycée Coulibaly de Cotonou, Lycée de Pobé, and Lycée Bohicon) and a polytechnic school (Université d' Abomey-Calavi) providing courses in refrigeration and servicing practices in the country.

Policy and regulations

26. The Government of Benin is proposing to enforce regulations on import of ODSs and ODS-based equipment; a ban on the use of CFC-based refrigeration equipment in new agro-industries and commercial sites with a surface over 300 m^2; ban the installation of CFC-12 based MAC units in any vehicle. The Government of Benin has also considered the establishment of an incentive policy for replacing ODS-based installations to non-ODS technologies.

Projects already approved in the refrigeration servicing sector

27. The Executive Committee approved at its 22nd Meeting a refrigerant recovery and recycling project for Benin and allocated US $114,000 to UNIDO for its implementation. The project included a nation-wide network comprising 50 recovery units and 6 recycling centres, provision of 50 refrigeration servicing kits including vacuum pump, leak detector and set of tools, and forty 6-day training courses for refrigeration technicians from each of the 400 service workshops in existence.

Sub-projects contained in the RMP

28. The RMP includes a request for a training programme for customs officers to make them aware of the new regulations on ODSs and different trends and options available to monitor and control consumption of ODSs and ODS-based equipment. ODS identification kits for customs officers are also requested.

29. The RMP also includes a "train the trainers" programme for refrigeration technicians in good management practices, aimed at improving service practices to prevent release of CFCs into the atmosphere including recovery of CFCs during service of equipment. It is expected that through these training programmes reductions in the consumption of CFC-11 (for flushing) and CFC-12 (leaks and bad servicing practices) will be achieved. The project also includes the preparation of a Code of Good Practices which will include technical information on good practices; description of the ODS consumption in Benin and CFC phase out commitments of reduction; the institutional framework and explanation of local regulations related to ODS, including licensing systems, and the institutions in charge of the compliance of these regulations; and also institutions providing training on refrigeration and certifying technicians.

30. The RMP also includes a training programme for monitoring and control of refrigerant consumption. Trained officials will inspect facilities with refrigeration equipment to determine their compliance with national regulations and complement the work of customs officers. This programme will enhance the monitoring and assessment capabilities of the officers, which is key to reducing both illegal imports of CFCs and to minimizing emissions of CFCs from equipment.

Monitoring

31. Benin's Ozone Unit will be responsible for the monitoring, co-ordination and implementation of proposed phase-out activities in the RMP.

COMMENTS

32. The RMP is to be implemented by the Government of Canada with the assistance from UNEP DTIE (for all training programmes).

33. Upon a request by the Fund Secretariat, the Government of Benin has submitted an official letter stating its commitment, responsibilities and financial implications associated with decision 31/48 (i.e., 50 per cent reduction of CFC baseline by 2005 and 85 per cent reduction by 2007; that all refrigeration sub-sectors have been carefully assessed; and has established a system for monitoring and reporting on progress for delivering the phase out targets). Furthermore, the Government of Canada informed the Secretariat that the proposed project concerning training for the custom officers, together with the planned import/export regulations, will assist the Ozone Unit in gathering the necessary information on consumption to monitor progress towards achieving the phase-out targets.

34. The training programme for refrigeration service technicians includes a request for 25 recovery and recycling machines and ancillary equipment. The Secretariat pointed out that the request for the machines was not justifiable taking into consideration that about 90 per cent of the total CFC consumed in the country was for servicing domestic refrigerators and that Benin has received recovery machines which were already distributed during implementation of the recovery and recycling project. The Government of Canada informed the Secretariat that the number of recovery and recycling machines provided in the recovery/recycling project was lower than originally planned due to budget constraints. However, it agreed to reduce the request for

additional equipment to 10 complete refrigeration kits including recovery machines and 15 kits without recovery machines (project cost was adjusted by US $14,000).

35. Upon a request for a clarification raised by the Secretariat on certification of technicians programme and preparation of a short manual on good refrigeration servicing practices, the Government of Canada reported that the certification of technicians programme will assist the training institute in providing incentives and/or remuneration to the trainers in charge of the programme and will cover the administrative costs of establishing the system of certificates to the technicians being trained. Furthermore, this programme will help to ensure that the training provided under the RMP will be incorporated into the regular curriculum of the main training institute for technicians.

36. The documents on code on good practices will be developed taking into account the local circumstances and will include: a description of the RMP for Benin including ODS consumption and Government's CFC phase out commitments; a description of the institutional framework and an explanation of local regulations related to ODS (i.e., licensing systems) and the institutions in charge of the compliance of these regulations; basic technical information on good services practices; and information on the institutions that are providing training to refrigeration technicians.

37. The Secretariat also sought clarification on the request for project assistance, monitoring and evaluation in each training programme (at a total cost of US $31,000). The Government of Canada stated that the project is to be managed and implemented for Canada by UNEP; the request for assistance and coordination of policy and technical issues represents UNEP's substantive management work (which is not covered under the agency's support cost), which includes: detailed definition of responsibilities of each stake-holder; definition of characteristics of the products and deliverables; guidance to local governments and experts on the work carried out at national level; review and comments on products and deliverables; preparation and delivery of targeted presentations at the workshops; follow-up and assistance on activities to be implemented after the workshop. The implementing agency will provide guidance to the Ozone Unit to ensure the sustainability of the sub-projects and assistance in regularly monitoring the progress undertaken, beyond the actual project implementation phase (it is envisaged that this assistance will continue up to 2005-2006).

38. Throughout the implementation of the RMP, regular consultation will take place between the Ozone Unit and the implementing agency to consider the potential for innovative implementation methods that could contribute towards the sustainability of the RMP, such as the creation of a revolving fund.

RECOMMENDATIONS

39. The Fund Secretariat recommends blanket approval of the projects at the funding level indicated below:

	Project Title	Project Funding (US$)	Support Cost (US$)	Implementing Agency
(a)	Implementation of the RMP: training of custom officials	59,900	7,787	Canada
(b)	Implementation of the RMP: training of environmental inspectors and investigators	57,000	7,410	Canada
(c)	Implementation of the RMP: development of code of good practice for technicians	10,000	1,300	Canada
(d)	Implementation of the RMP: training of technicians in good refrigeration practices	144,000	18,720	Canada

40. The Treasurer is authorized to offset the approved amount against the balance of the Government of Canada bilateral contribution to the Multilateral Fund for 2000.

Global – Translation into French and Spanish of the Executive Committee approved training manual entitled Customs Officer Training in Substances that Deplete the ozone Layer (GLO/SEV/27/TRA/180 AND 184) (US $36,000 for the project and US $1,440 for support costs for Canada)

Project description

41. The English version of the Customs Officer Training on Substances Depleting the Ozone Layer manual was, approved for development with bilateral funding from the governments of Canada and Finland at the 27th Meeting of the Executive Committee. It is expected to be printed by the end of this year. The development of the manual was managed by UNEP/DTIE on behalf of the governments of Canada and Finland. Draft versions have been used for English-speaking customs training. In order to proceed with customs training in French and Spanish-speaking countries, the manual would need to be translated. In addition to the costs of translation, the budget includes funds to cover the costs of technical review and quality control, layout, printing and dissemination.

42. Total project costs are US $36,000 and US $1,440 for the support costs for the Government of Canada. The project is expected to be completed in eight months.

COMMENTS

43. The initial submission of the project did not include a line item for translation. The Secretariat asked if the manual would be translated. The Government of Canada indicated that the manual would be translated into French and Spanish with 200 copies printed in each language. The Secretariat informed the Executive Committee at its 27th Meeting that the manual would be translated as part of the original project budget.

44. Following the approval of the project, Canada and Finland sub-contracted the project to UNEP DTIE. UNEP further sub-contracted the project and awarded it to the most cost-effective bid that did not include translation and copies of the translated manual.

45. It should be noted that UNEP received US $120,000 for a project entitled "Complement for translation and printing of four guidelines and training modules into Arabic, Chinese, French and Spanish" at the 29th Meeting of the Executive Committee. As of the end of 1999, no funds were disbursed for this project.

RECOMMENDATIONS

46. The Fund Secretariat recommends this project for blanket approval.

REQUESTS FROM THE GOVERNMENT OF FRANCE

Introduction

47. The Government of France submitted requests for bilateral cooperation for projects in Morocco and the Africa Region. The amount requested, plus the amount approved for France at the 30th Meeting, does not exceed 20 per cent of France's total contribution for the year 2000.

48. Table 4 presents a summary of France's requests by project title, country, amount requested, and amount recommended. The total amount recommended, once approved by the Executive Committee, should be offset against France's contributions for year 2000.

Table 4

SUBMISSIONS FROM THE GOVERNMENT OF FRANCE AND RECOMMENDATIONS

Project Title	Country	Amount Requested including Support Costs (US$)	Amount Recommended (US$)
Technical assistance for cold storage – training and demonstration project	Morocco	120,054	Pending
Refrigeration and global environment – evaluation of equipment modernization study	Africa Region	15,000	Pending
TOTAL		135,054	Pending

Morocco—Technical Assistance for cold storage—Training and demonstration project (US $114,337 for the project and US $5,717 for support costs for France)

Project description

49. The aim of this project is to assist Morocco in dealing with the cold storage sector. A study has been done to evaluate the impact of the Montreal Protocol on this sector. The main finding of this study was that 10 per cent of the cold storage equipment (in terms of capacity) are using CFC based refrigerant and this equipment is very important to the economy of Morocco. The project would improve the technical knowledge of technicians in charge of repairing and maintaining cold storage equipment and to encourage in some cases, drop in substitutes for the equipment. This project, developed within the context of the study, aims to sensitise the key actors in this sector through a seminar (US $30,000), to provide the technicians with two kinds of training (1) on better intervention practices and (2) on the retrofitting process (US $ 43,000). The retrofitting/drop in substitute training would be illustrated by the conversion of two cold storage facilities: one using CFC 12 and the other using R 502 (US $ 41,337). US $114,337 and support costs totalling US $5,717 were requested. The project has a duration of 24 months from approval.

COMMENTS

50. UNEP received funds to prepare an RMP for Morocco at the 27th Meeting. The preparation of the project is ongoing.

51. The ODS recovery and recycling network project approved at the 23rd Meeting for French implementation in the amount of US $355,867. It provided recovery machines and storage bottles to the workshops servicing large commercial and industrial refrigeration systems and chillers. Also at the 23rd Meeting, US $53,361 was approved for a project in Morocco for French implementation to train service technicians to improve the quality of refrigerant servicing and provide information to reduce emissions during several workshops. The later project is still under implementation based on the last progress report.

52. The Government of France indicated that the distinction between the approved project and the proposed project is that the approved project trains only in good servicing practices while the proposed project concentrates on reparation, maintenance and retrofitting/drop in substitutes and the training for cold storage requires a different skills than for refrigerators.

RECOMMENDATIONS

53. The Executive Committee may wish to consider the eligibility of the proposed project in the light of the approved recovery and recycling project and the RMP being prepared for Morocco.

Africa Region - Refrigeration and Global Environment – Evaluation of Equipment Modernisation study (US $15,000 for the project without a request for support costs)

Project description

54. At its 10th meeting, the Meeting of the Parties urged the Committee to evaluate the crossed implications between the Montreal Protocol and the Kyoto Protocol implementation. Since 1994, France has been working both in implementing the Montreal Protocol activities and projects dealing with climate change, mainly in African Countries. Based on its experience, France indicated that refrigeration sector, which is the main ODS consuming sector, is also the main sectors responsible for electricity consumption.

55. In this respect and considering that existing sub-regional organizations could be the right channel for an integrated approach, France is proposing to carry out a study in countries of a sub-regional economically integrated organization of the West Africa (UEMO) with the following goals:

- The evaluation of the contribution of the refrigeration sector on Ozone depletion and Greenhouse effect,

- The identification of the necessary actions in order to integrate these environmental aspects in the development of this very important sector,
- To propose an equipment modernization investment programme, with new equipment using less energy and ODS-free refrigerant.

56. In the case of Senegal, the synergetic implications between energy consumption and ODS consumption are concentrated in the commercial and industrial refrigeration sub-sectors, on which the study will focus. When available, the refrigerant management plan would be used in the study.

57. The expected results of this study are the following:

- The formulation of a strategic plan for the ODS phase out and reduction of greenhouse gases emissions in the commercial and industrial refrigeration in UEMOA countries through 2010,
- The identification of the necessary incentives (funding, taxes, regulations, etc.) for early modernization of the existing equipment,
- The establishment of an investment programme aimed at reducing the consumption of ODS and emission of greenhouse gases,
- Setting up an innovative funding process including GEF, Multilateral Fund and other funding sources to ensure the sustainability of the refrigeration sub-sectors with respect to the global environment.

58. The project is expected to cost US $50,000, of which the Multilateral Fund is being requested to provide US $15,000. No agency support costs were requested. The ODS use in the sector is 714 ODP tonnes in 1998/1999 according to the proposal. The project has a duration of 18 months from approval.

COMMENTS

59. Six of the eight countries concerned in this study (Burkina Faso, Cote d'Ivoire, Mali, Niger, and Senegal) have already received RMPs. Benin's RMP has been submitted to this meeting. Guinea Bissau is not a Party to the Montreal Protocol. Togo has not received an RMP as its consumption in its country programme was 1 tonne, and despite having an institutional strengthening project, has not reported data to the Ozone Secretariat. The Government of France indicated that Guinea Bissau is expected to ratify the Protocol soon.

RECOMMENDATIONS

60. The Executive Committee may wish to consider the funding eligibility of this proposal.

REQUESTS FROM THE GOVERNMENT OF GERMANY

Introduction

61. The Government of Germany submitted requests for bilateral cooperation for projects in Algeria, Egypt, Gambia India and Syria. The request for Egypt was withdrawn. The remaining amount requested, plus the amount approved for Germany at the 30th Meeting, does not exceed 20 per cent of Germany's total contribution for the year 2000.

62. Table 5 presents a summary of Germany's requests by project title, country, amount requested, and amount recommended. The total amount recommended, once approved by the Executive Committee, should be offset against Germany's contributions for year 2000.

Table 5

SUBMISSIONS FROM THE GOVERNMENT OF GERMANY AND RECOMMENDATIONS

Project Title	Country	Amount Requested including Support Costs (US$)	Amount Recommended (US$)	Support Costs (US$)
Conversion of S.O.F.T.P.M.	Algeria	663,237	498,400	64,792
Conversion of matelas Souf to LCD technology	Algeria	663,130	561,379	71,752
Phase-out of the use of bromide in grain storage	Egypt	3,490,000	Withdrawn	Withdrawn
Retrofit of commercial units in Gambia	Gambia	73,450	Pending	Pending
Preparation of a national strategy to rerduct and eliminate the use of CFC refrigerant in the servicing sector	India	369,700	Pending	Pending
Project preparation/technical assistance in soil fumigant (methyl bromide)	Syria	42,036	37,200	4,836
TOTAL		5,301,553	Pending	Pending

PROJECT EVALUATION SHEET
ALGERIA

SECTOR: Foam ODS use in sector (1999): 1,737.5 ODP tonnes

Sub-sector cost-effectiveness thresholds: Flexible US 6.23$/kg

Project Titles:

(a) Conversion of Matelas Souf to LCD technology
(b) Conversion of S.O.F.T.P.M.

Project Data	**Flexible slabstock**	**Flexible slabstock**
	Matelas Souf	**SOFTPM**
Enterprise consumption (ODP tonnes)		
Project impact (ODP tonnes)	95.00	80.00
Project duration (months)	12	12
Initial amount requested (US $)	561,379	588,502
Final project cost (US $):		
Incremental capital cost (a)	623,000	545,000
Contingency cost (b)	57,300	49,500
Incremental operating cost (c)	-118,921	-5,998
Total project cost (a+b+c)	561,379	588,502
Local ownership (%)	100%	100%
Export component (%)	0%	0%
Amount requested (US $)	561,379	498,400
Cost effectiveness (US $/kg.)	5.88	6.23
Counterpart funding confirmed?		
National coordinating agency		
Implementing agency	Germany	Germany

Secretariat's Recommendations		
Amount recommended (US $)	561,379	498,400
Project impact (ODP tonnes)	95.00	80.00
Cost effectiveness (US $/kg)	5.88	6.23
Implementing agency support cost (US $)	71,752	64,792
Total cost to Multilateral Fund (US $)	633,131	563,192

PROJECT DESCRIPTION

Sector Background

- Latest available total ODS consumption (1999)	1,737.5 ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	3,805.30 ODP tonnes
- Consumption of Annex A Group I substances for the year 1999	1,697.2 ODP tonnes
- Baseline consumption of CFCs in foam sector	2,344.70 ODP tonnes
- Consumption of CFCs in foam sector in 1999	377.00 ODP tonnes
- Funds approved for investment projects in foam sector as of end of 1999	US $2,994,170
- Quantity of CFC to be phased out in investment projects in foam sector as of end of 1999	1,621.65 ODP tonnes
- Quantity of CFC phased out in investment projects in foam sector as of end of 1999	1,095.39 ODP tonnes
- Funds approved for investment projects in the foam sector in 2000	US $603,728
- Quantity of CFC to be phased out in investment projects in foam sector approved in 2000	152 ODP tonnes

63. Based on analysis of data reported by Algeria to the Ozone Secretariat and other relevant data, the country is in compliance with both the CFC freeze and the 50% CFC reduction by 2005. These accomplishments demonstrate that the country is in good position to achieve the complete phase out of CFC by 2010.

(a) Conversion of Matelas Souf to LCD technology
(b) Conversion of S.O.F.T.P.M.

Matelas Souf and S.O.F.T.P.M.

64. Matelas Souf and S.O.F.T.P.M. use 95 ODP tonnes and 80 ODP tonnes of CFC-11 per year respectively (1999) in the production of flexible polyurethane slabstock foam for mattresses and furniture. The foam production at the two companies is to be converted to liquid carbon dioxide technology. Matelas Souf and S.O.F.T.P.M. both operate OMS continuous foaming machine installed in 1977 and 1985 respectively. The projects include the retrofitting of the existing continuous machines and the installation of supplementary equipment at a total cost of US $630,000 and US $544,500 respectively. This includes the cost of LCD system and ancillary equipment which is US $531,300 for Matelas Souf and US $462,000 for S.O.F.T.P.M. and technology transfer, training, commissioning and trials costing US $99,000 and US $75,000 respectively. The incremental capital costs of each project also includes license fee of

US $50,000. There are incremental operational savings of US $118,921 for Matelas Souf and US $5,998 for S.O.F.T.P.M. calculated over four years.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

65. The Fund Secretariat and GTZ agreed on the projects and their costs.

RECOMMENDATIONS

66. The Fund Secretariat recommends blanket approval of the Matelas Souf and S.O.F.T.P.M. projects with the funding levels and associated support costs indicated below.

67. The total grant for the two projects US $1,196,323 (including support cost of US $136,544) is to be offset against the contribution of the Government of Germany to the Multilateral Fund for the year 2000.

	Project Title	Project Funding (US$)	Support Cost (US$)	Implementing Agency
(a)	Conversion of Matelas Souf to LCD technology	561,379	71,752	Germany
(b)	Conversion of S.O.F.T.P.M.	498,400	64,792	Germany

Gambia - Retrofit of commercial units

Introduction

68. The Government of Germany has submitted a request for bilateral cooperation for a project to retrofit commercial refrigeration equipment in Gambia.

69. In 1999, ODS consumption in Gambia was 6.8 ODP tonnes of CFC-12 and 0.09 ODP tonnes of CFC-11. Apart from the minor use of CFC-11 in flexible foam operations, the major consumption is in the servicing of refrigeration equipment.

70. The current ODP consumption in Gambia is significantly lower than the CFC baseline consumption, which was determined to be 23.8 ODP tonnes.

71. A Refrigerant Management Plan has been prepared by UNEP. The following activities have been approved as part of implementation of the RMP approved at the 29th Meeting:

- Policy development and related information dissemination (UNEP)
- Training programme for technicians in good refrigeration practices (UNEP) (ongoing)
- Refrigerant recovery and recycling scheme (UNIDO) (ongoing)

72. Gambia adopted several legislative measures which have already facilitated the reduction of CFC consumption in the country and will be essential for further reduction of ODS consumption in the future.

73. The objective of the project is to reduce ODP consumption by 5.3 ODP tonnes through retrofitting 23 large commercial refrigeration installation in six companies to HFC-134a refrigerant. The total cost of the project is US $73,450 including US $8,450 support cost.

74. The project includes the cost of new refrigerant, lubricant, filter-dryers, expansion valves and other minor equipment and labour. In addition to providing equipment for retrofit, a training course on retrofit practices will be organised by the Ozone Office and beneficiary industries.

COMMENTS

75. The Secretariat reviewed the uses, timing, sustainability and eligibility of the proposal. The proposal indicates that under approved RMP, the local refrigeration technicians are currently receiving training in good refrigeration practices. These activities are expected to reduce consumption by about 40%.

76. The preconditions required in Decision 28/44, on guideline for end-user conversion in the commercial refrigeration sector do not currently exist in Gambia:

- Prices of substitute refrigerants are still much higher than CFC refrigerant. Therefore, the sustainability of the project cannot be guaranteed.
- The profile of all remaining consumption in the refrigeration sector in the country has not been determined.

77. It appears that Gambia will be able to meet its obligation to reduce the baseline consumption by 50% in 2005 and probably by 85% in 2007 through the activities already approved but not yet implemented. Therefore, there may not be a priority for any additional funds at the present time.

78. Additionally, for LVC countries with an approved RMP, any additional projects will have to be formulated in the context of a proposal for use of 50% additional funding under Decision 31/48. The proposal for Gambia does not include a reference to this provision.

79. The Secretariat has requested additional information from Germany to understand the level of consumption proposed to be phased out by retrofitting the 23 refrigeration units. The discussion is continuing and the Sub-Committee will be informed of the outcome.

India – Preparation of a national strategy to reduce and eliminate the use of CFC refrigerants in the servicing sector (US $499,700)

Project description

80. Over 70 per cent of India's 1997 CFC-12 consumption was consumed in the service and maintenance of the equipment used in the refrigeration sector. The refrigeration and air conditioning service sector in India is a collection of formal workshops as well as a large number of very dispersed informal establishments, which provide a significant amount of maintenance services. The strategy will provide a framework of measures to be undertaken to ensure India's compliance with its obligations under the Protocol.

81. The strategy would be developed through a process chaired by the Director of the Ozone Cell in the Ministry of Environment and Forests (MoEF). The process would, itself, facilitate both awareness raising as well as a high degree of ownership of the stakeholders participating, who will be representatives of federal ministries, local governments, industry and the servicing sector, teaching institutions and technical experts as well as international agencies.

82. A wide variety of expertise will be used in the information gathering process. UNDP will contribute on the basis of its experience in India, in particular through the implementation of Multilateral Fund projects. The World Bank would participate as part of its preparation of projects in the industrial refrigeration and chiller sub-sectors. Germany and Switzerland would contribute their national phase out experiences, their international experience in RMP implementation and support as well as experience gathered during the implementation of refrigeration service sector projects in India. They will also support India with assessing the information, proposing strategy elements and preparing the final strategy document. In the development of the servicing sector strategy, UNEP will support the Government of India through capacity building and technical assistance and will assist in planning training and awareness programmes using their expertise in non-investment projects.

83. The project cost is estimated at US $499,700. This cost includes the setting up of working groups, committees etc.; capacity building, meeting organization and general administration, information collection, information assessment, strategy formulation, strategy review, contingency and administrative costs.

COMMENT

84. The Fund Secretariat and the Government of Germany, as the lead agency for this project, are discussing this project.

RECOMMENDATION

85. Pending.

GERMANY: PROJECT PREPARATION ON SOIL FUMIGATION IN SYRIA

Description

86. The Government of Germany received an official request from the Government of Syria for the preparation of an investment project for phasing out methyl bromide (MB) in soil fumigation. The project, when completed, will provide the necessary information for determining the requirements of the country with respect to the phase out of MB in soil fumigation, adaptation of suitable alternative technologies, training programmes and regulatory and policy measures.

Comments

87. The Secretariat pointed out that the Executive Committee approved at its 24th Meeting, a demonstration project on alternatives to the use of MB in horticulture and commodities fumigation. The demonstration project under current implementation by UNIDO has not yet been completed, and therefore, the most suitable technology to replace MB has not yet been selected. The Secretariat also indicated that the project proposal does not make any reference to the demonstration project under UNIDO's implementation, or co-ordination modalities between the Government of Germany and UNIDO.

88. The Government of Germany informed the Secretariat that the full results of UNIDO's demonstration project, which will be completed shortly, will be available before preparation of the investment project begins. The most promising alternative technologies to MB that were tested at the demonstration project are steam, biofumigation and application of other pesticides within the IPM systems. The Syrian Ozone Unit will provide all information necessary to proceed with the preparation of the phaseout project. The Government of Germany through GTZ will continue to liaise with UNIDO and other relevant parties, directly and through the auspices of the Ozone Unit.

Recommendation

89. The Fund Secretariat recommends blanket approval of the projects at the funding level of US $37,200 with agency support costs of US $4,836.

90. The Treasurer is authorized to offset the approved amount against the balance of the Government of Germany bilateral contribution to the Multilateral Fund for 2000.

REQUESTS FROM THE GOVERNMENT OF JAPAN

Introduction

91. The Government of Japan submitted requests for bilateral cooperation for projects in Nigeria. The amount requested, plus the amount approved for Japan at the 30th Meeting, does not exceed 20 per cent of Japan's total contribution for the year 2000.

92. Table 6 presents a summary of Japan's requests by project title, country, amount requested, and amount recommended. The total amount recommended, once approved by the Executive Committee, should be offset against Japan's contributions for year 2000.

Table 6

SUBMISSIONS FROM THE GOVERNMENT OF JAPAN AND RECOMMENDATIONS

Project Title	Country	Amount Requested (US$)	Amount Recommended (US$)	Support Costs (US$)
Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Martchern Industries Limited by conversion to methylene chloride	Nigeria	235,176	175,121	22.766
Phasing out of CFC-11 in the manufacture of flexible slabstock foam at MAC-VICO (Nig.) Limited by conversion to methylene chloride	Nigeria	143,746	105,209	13,667
Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Eastern Wrought from Limited by conversion to methylene chloride	Nigeria	141,678	109,345	14,215
TOTAL		520,600	389,675	27,905

PROJECT EVALUATION SHEET
NIGERIA

SECTOR: Foam ODS use in sector (1998): 3,770 ODP tonnes

Sub-sector cost-effectiveness thresholds: Flexible slabstock US $6.23/kg

Project Titles:

(a) Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Eastern Wrought Iron Limited by conversion to methylene chloride
(b) Phasing out of CFC-11 in the manufacture of flexible slabstock foam at MAC-VICO (Nig.) Limited by conversion to methylene chloride
(c) Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Martchem Industries Limited by conversion to methylene chloride

Project Data	**Flexible slabstock**	**Flexible slabstock**	**Flexible slabstock**
	Eastern Wrought	**Mac-Vico**	**Martchem**
Enterprise consumption (ODP tonnes)	27.10	28.40	38.40
Project impact (ODP tonnes)	27.10	28.40	38.40
Project duration (months)	36	36	36
Initial amount requested (US $)	125,379	127,209	208,121
Final project cost (US $):			
Incremental capital cost (a)	122,000	127,000	208,000
Contingency cost (b)	12,200	12,700	20,800
Incremental operating cost (c)	-24,855	-34,491	-53,679
Total project cost (a+b+c)	109,345	105,209	175,121
Local ownership (%)	100%	100%	100%
Export component (%)	0%	0%	0%
Amount requested (US $)	109,345	105,209	175,121
Cost effectiveness (US $/kg.)	4.03	3.70	4.56
Counterpart funding confirmed?			
National coordinating agency	Federal Ministry of Environment	Federal Ministry of Environment	Federal Ministry of Environment
Implementing agency	Japan	Japan	Japan

Secretariat's Recommendations			
Amount recommended (US $)	109,345	105,209	175,121
Project impact (ODP tonnes)	27.10	28.40	38.40
Cost effectiveness (US $/kg)	4.03	3.70	4.56
Implementing agency support cost (US $)	14,215	13,677	22,766
Total cost to Multilateral Fund (US $)	123,560	118,886	197,887

PROJECT DESCRIPTION

Sector Background

- Latest available total ODS consumption (1998)	5,476.10 ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	3,650.00 ODP tonnes
- Consumption of Annex A Group I substances for the year 1998	4,761.50 ODP tonnes
- Baseline consumption of CFCs in foam sector	Not Available ODP tonnes
- Consumption of CFCs in foam sector in 1998	3,770.00 ODP tonnes
- Funds approved for investment projects in foam sector as of end of 1999	US $5,062,130.00
- Quantity of CFC to be phased out in investment projects in foam sector as of end of 1999	1,107.70 ODP tonnes
- Quantity of CFC phased out in investment projects in foam sector as of end of 1999	315.00 ODP tonnes
- Funds approved for investment projects in the foam sector in 2000	US $963,324
- Quantity of CFC to be phased out in investment projects in foam sector approved in 2000	164.80 ODP tonnes

93. Based on data reported by Nigeria to the Ozone Secretariat, the country appears to be in non-compliance with the CFC freeze. An additional 1,111.5 ODP tonnes of CFC must be phased out in order for the country to meet the freeze requirements. In order to meet the 50% CFC reduction by 2005, an additional 1,842.5 ODP tonnes of CFC must be phased out.

(a) Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Eastern Wrought Iron Limited by conversion to methylene chloride

(b) Phasing out of CFC-11 in the manufacture of flexible slabstock foam at MAC-VICO (Nig.) Limited by conversion to methylene chloride

(c) Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Martchem Industries Limited by conversion to methylene chloride

Flexible Slabstock Foam

94. Three companies (Eastern Wrought Iron, Mac-Vico and Martchem) used 27.1 ODP tonnes, 28.4 ODP tonnes and 38.4 ODP tonnes of CFC-11 respectively in the production of flexible polyurethane foam slabstock (average 1997-1999) for the furniture industry. Eastern Wrought Iron operates a maxfoam unit, while Mac-Vico and Martchem operate boxfoam units. Mac-Vico has two boxfoam units while Martchem has three located in two different plants – two at its Kano and one at its Kaduna plant. The companies will phase out the CFC-11 by converting their production to methylene chloride technology. Mac-Vico intends to replace its boxfoam units with a Maxfoam continuous process after conversion using methylene chloride.

95. The projects include the retrofitting of existing equipment. The incremental capital cost of conversion includes the cost of a methylene chloride storage tank and metering system at US $25,000-US $29,000, machine enclosure and ventilation for work and cure areas at US $30,000 and US $37,500 for each boxfoam unit at Martchem and Mac-Vico respectively and US $70,000 for the Maxfoam unit at Eastern Wrought Iron. Other costs include methylene chloride detectors at US $8,000, trials, technology transfer and training US $19,000 each at Eastern and Mac-Vico and US $34,000 at Martchem. The three projects (Eastern, Mac-Vico and Martchem) will accrue incremental operational savings (2 years NPV) of US $24,855, US $34,491 and US $53,679 respectively.

Impact of the projects

96. A total of 93.9 ODP tonnes will be phased out from the three foam projects. This will eliminate 2.6% of Nigeria's baseline consumption of Annex A Group I substances.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

97. The Fund Secretariat and UNDP discussed the projects and agreed on the eligible grants to the companies as follows:

	US $
Eastern Wrought Iron	109,345
Mac-Vico	105,209
Martchem Industries	175,121

RECOMMENDATIONS

98. The Fund Secretariat recommends blanket approval of the Eastern Wrought Iron, Mac-Vico and Martchem Industries projects with the level of funding and associated support costs as indicated in the table below.

	Project Title	Project Funding (US$)	Support Cost (US$)	Implementing Agency
(a)	Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Eastern Wrought Iron Limited by conversion to methylene chloride	109,345	14,215	Japan
(b)	Phasing out of CFC-11 in the manufacture of flexible slabstock foam at MAC-VICO (Nig.) Limited by conversion to methylene chloride	105,209	13,677	Japan
(c)	Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Martchem Industries Limited by conversion to methylene chloride	175,121	22,766	Japan

REQUEST FROM THE GOVERNMENT OF SWITZERLAND

Introduction

99. The Government of Switzerland submitted requests for bilateral cooperation for project in India. The amount requested, plus the amount approved for Switzerland at the 30th Meeting, does not exceed 20 per cent of Switzerland's total contribution for the year 2000.

100. Table 7 presents a summary of Switzerland's requests by project title, country, amount requested, and amount recommended. The total amount recommended, once approved by the Executive Committee, should be offset against Switzerland's contributions for year 2000.

Table 7

SUBMISSIONS FROM THE GOVERNMENT OF SWITZERLAND AND RECOMMENDATIONS

Project Title	Country	Amount Requested (US$)	Amount Recommended (US$)
Preparation of a national strategy to reduce and eliminate the use of CFC refrigerants in the servicing sector	India	80,000	Pending
TOTAL		80,000	

COMMENTS

101. See comments under German bilateral activities.

RECOMMENDATION

102. Pending.