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

Eleventh Meeting
Bangkok, 10-12 November 1993

COUNTRY PROGRAMME: SENEGAL

This document consists of:

- a) Country Programme Evaluation Sheet (prepared by the Fund Secretariat);
- b) Country Programme Cover Sheet (prepared by the Fund Secretariat);
- c) Transmittal Letter from the Government of Senegal;
- d) Country Programme.

SENEGAL COUNTRY PROGRAMME EVALUATION SHEET

1. The Senegal Country Programme was revised in accordance with the "Procedures for Presentation of Country Programmes and Project Proposals to the Executive Committee"¹. It consists of:

- Letter of transmittal from the Government of Senegal;
- Summary;
- Introduction;
- Current and forecasted ODS consumption levels, industry structure (users and importers), institutional and policy frameworks, and government and industry responses to the Protocol;
- Strategy statement by the Government, action plan and planned Government measures, cost to the national economy;
- Summary of project proposals, timetable and expected impact on consumption;
- Description of specific project proposals (as annexes).

2. Senegal ratified the Montreal Protocol and the London Amendment to the Protocol on 6 May 1993. The preparation of the Senegal country programme started before Senegal became Party to the Montreal Protocol. Financial support was provided from the Government of Finland (FINNIDA) and UNEP IE/PAC.

3. Senegal does not produce controlled substances. In 1991, the country's consumption of ODS was estimated at 113.3 tonnes (102.1 ODP weighted tonnes). About 98 per cent (111.2 tonnes) of the total ODS consumed in the country was used for servicing refrigeration equipment through 200 service technicians, as follows:

- Domestic refrigerators: 62.4 tonnes of CFC-12 and 0.5 tonnes of CFC-114;
- MAC units: 31.3 tonnes of CFC-12;
- Cold storage chambers in hotels, ships and food industries: 17 tonnes of R-502 (a blend of HCFC-22 and CFC-115).

4. The remaining 2 per cent (2.1 tonnes) was CFC-11 used as a foam blowing agent for the manufacturing of mattresses.

5. For the implementation of the country programme, the Government is planning to establish an Ozone Focal Point, headed by the Ministry of Tourism and the Environment. It will be responsible for the planning, co-ordination, financial-aid management and supervision of ODS phase-out measures in accordance with the proposed action plan.

6. The Government is proposing to reduce the consumption of ODS in the country by 85 per cent between 1993 and 1997; the remaining 15 per cent will be phased-out by the year 2000

¹ UNEP/OzL.Pro/ExCom/5/5/Rev.2.

providing that replacement chemicals are made commercially available and the measures describe in the action plan are implemented. In order to achieve these goals, the Government will implement several actions, including: import control of products using CFCs by increasing customs duties; training service technicians in the refrigeration sector and encourage recycling of CFC-12 used in this sector; encourage manufacturers of ODS-containing products to introduce alternative technology; and inform and sensitize the informal sector of the economy.

7. The Government action plan has been developed on the basis of strengthening a national institution to co-ordinate activities proposed in the action plan and training programmes in the refrigeration sector. The following project proposals are being requested for funding for the implementation of the first phase of the country programme (1994-1996):

- I. Institutional strengthening (\$393,000):
 - Establishment of the Ozone Focal Point (\$175,000);
 - Public awareness programme (\$192,000);
 - Expansion and upgrading of statistics networks for customs (\$26,000).
- II. Industrial sector activities (\$94,000):
 - Training and upgrading for repair technicians (\$58,000);
 - Recovery and recycling equipment (\$36,000).

8. The total phase-out costs for Senegal during the period 1994-1997 are estimated at \$487,000. Total incremental costs estimates to the economy of Senegal due to the implementation of the Montreal Protocol are approximately \$184 million, due to an early discard of domestic refrigerators and MAC units.

Recommendations

9. The following recommendations are made for the consideration of the Executive Committee:

1. Approval of the country programme. Such approval does not denote approval of all of the projects listed therein or their funding levels;
2. Approval of \$259,000 as funding for the following project proposals:
 - Establishment of Ozone Focal Point: \$175,000;
 - Training and upgrading for repair technicians: \$58,000;
 - Expansion and upgrading of statistics networks for customs: \$26,000.

These activities are to be included as amendments to UNEP's work programme, allocating an additional \$33,670 as support costs;

3. Request UNEP to further develop the proposal on recovery and recycling equipment for submission at a future meeting of the Executive Committee.

COUNTRY PROGRAMME COVER SHEET

Country: **SENEGAL**

Lead National Agency: Ozone Focal Point

Participating Implementing Agencies: UNEP

Phase-out schedule

Substance	Current consumption (1991) (1) (ton x ODP)	Planned cumulative consumption untill phase-out (ton x ODP)	
		Article 5 schedule (2)	Accelerated schedule (3)
CFC-11	2.1 x 1.0 = 2.1	36.6	6.4
CFC-12	93.7 x 1.0 = 93.7	1,632.6	283.6
CFC-114	0.5 x 1.0 = 0.5	8.7	1.5
TOTAL	96.3	1,677.9	291.5

- (1) In addition, 17 tonnes R-502, a blend of HCFC-22 and CFC-115 (5.8 ODP tonnes) were consumed.
- (2) Projected at an annual growth rate of 3.0 per cent through the year 2010.
- (3) The following ODS phase-out phases are being proposed:
 - Phase I (1992-1996): 85 per cent reduction in the consumption of ODS; and
 - Phase II (1997-2000): complete ODS phase-out, except for essential uses.

Government Action Plan

Year	Description of Action	Intended Effect	Sector	Estimated cost (US \$)			
				1994	1995	1996	Total
I. INSTITUTIONAL STRENGTHENING							
1994-1996	Establishment of the Ozone Focal Point	Co-ordination, control, technical support, monitor	All	70,000	54,000	51,000	175,000
1994-1995	Public awareness programme	Create awareness in different sectors of the society on the impacts due to depletion of the ozone layer	All	96,000	96,000		192,000
1994	Expansion and upgrading of statistics network for customs	Training	All	26,000			26,000
	Sub-total cost			192,000	150,000	51,000	393,000
II. INDUSTRIAL SECTOR ACTIVITIES							
1994	Training and upgrading for repair technicians	Training	Refrigeration	58,000			58,000
1994	Recovery and recycling equipment	Training in using CFC recovery equipment	Refrigeration	36,000			36,000
	Sub-total cost			94,000			94,000
	TOTAL COST			286,000	150,000	51,000	487,000

Project Summary

Year	Type of Project	Project Description	Agency	Project cost (US\$)
1994–1996	Institutional strengthening	Establishment of appropriate institutional framework, public awareness programme and customs training	UNEP Ozone Focal Point	393,000
1994	Industrial sector activities	Training for: (i) refrigeration repair technicians, (ii) in using CFC recovery equipment	UNEP	94,000
TOTAL COST				487,000

The Government of Senegal proposes to eliminate 85% of its ODS consumption between 1993 and 1997. The remaining 15% of ODS consumed in the country will be phased-out by the year 2000 providing that replacement chemicals are made commercially available and the measures described in the Action Plan are implemented.

MINISTERE
DE L'ENVIRONNEMENT
ET DE
LA PROTECTION DE LA NATURE

Dakar, le

Le Ministre

Objet: Programme de Pays du Sénégal

Docteur Al Arini,

J'ai l'honneur de vous transmettre pour approbation et financement le programme de Pays du Sénégal.

Le Sénégal a ratifié le Protocole de Montréal le 06 Mai 1993.

Sa consommation étant inférieure à 0.3Kg/hab, il est donc visé par les dispositions du paragraphe 1 article 5 du Protocole .

Le Programme de Pays, réalisé sous la Direction du Ministère de l'Environnement et de la Protection de la Nature, et avec l'assistance du PNUE/IE/CAP, a permis l'élaboration d'une stratégie qui prévoit un plan d'action et par suite des projets.

Ces projets vont permettre l'élimination totale des substances appauvrissant la couche d'ozone en l'an 2000, soit dix ans d'avance sur le calendrier prévu par le Protocole de Montréal.

Le Gouvernement a approuvé l'ensemble des actions contenues dans le présent Programme de Pays, et s'assurera que leur mise en oeuvre se fera en accord avec les dispositions du Protocole de Montréal. Ainsi il pourra être modifié et soumis une nouvelle fois à l'approbation du Comité Exécutif du Fonds Multilatéral si d'autres actions s'avéraient nécessaires au bon respect du Protocole.

/-/)u Docteur El Arini chef du Secrétariat
du Fonds Multilatéral aux fins d'application
du Protocole de Montréal
1800 McGill College Avenue
27 th Floor
Montréal, Canada H3A 3J6.

.../...

Nous espérons que lors de sa 11ème réunion, le Comité Exécutif du Fonds Multilatéral approuvera le présent Programme de Pays et financera les projets qui y sont annexés pour un montant total de 526,000 US dollars.

Les projets, énumérés ci-dessous et préparés suivant la procédure requise par le Comité Exécutif du Fonds Multilatéral, sont soumis avec une présentation sommaire.

1. Projet de renforcement des Institutions : point contact ozone,
2. Formation et mise à niveau pour les réparateurs,
3. Elargissement et perfectionnement des réseaux statistiques de la Douane,
4. Campagne d'information et de sensibilisation,
5. Equipement de récupération et de recyclage.

Veuillez agréer, Docteur El Arini, ma haute considération

Pour le Ministre de l'Environnement
et de la Protection de la Nature
et par délégation
Le Directeur de Cabinet

MBaye NDOYE

MINISTERE DE L'ENVIRONNEMENT ET DE
LA PROTECTION DE LA NATURE

Dakar

The Minister

Dr. El Arini
Head Officer
Multilateral Fund Secretariat for the
Implementation of the Montreal Protocol
1800 McGill College Avenue
27th Floor
Montreal
H3A 3J6
Canada

Subject: Senegal's Country Programme

Dr. Al Arini,

I am honoured to send you the Senegal Country Programme for your approval and funding.

Senegal ratified the Montreal Protocol on May 6, 1993.

With a consumption of less than 0.3 kg/person, our country is covered by the provisions of the Montreal Protocol's Article 5, paragraph 1.

The Country Programme, carried out under the direction of the Ministère de l'Environnement et de la Protection de la Nature, with assistance from the UNEP IE/PAC, has made it possible to develop a strategy including an action plan, followed by projects.

These projects will allow for the total phase-out of ozone-depleting substances by the year 2000, ten years ahead of the deadline provided for in the Montreal Protocol.

The government has approved all measures contained in the present Country Programme and will ensure that their implementation is carried out in accordance with the provisions of the

Montreal Protocol. Therefore, the Programme may be modified and again submitted for the approval of the Multilateral Fund Executive Committee if additional measures prove necessary for rightful compliance with the Protocol.

We hope that the Eleventh Meeting of the Executive Committee of the Multilateral Fund will approve both the present Country Programme and the projects annexed to it for a total of US\$526,000.

The projects listed below were prepared according to the procedures required by the Multilateral Fund Executive Committee and have been submitted with a brief presentation:

1. Institutional strengthening: Ozone Contact Point
2. Training and upgrading for repair technicians
3. Expansion and upgrading of statistics networks for customs
4. Information and awareness campaign
5. Recovery and recycling equipment

Sincerely,

MBaye NDOYE
[Stamps and signature]

REPUBLIC OF SENEGAL

**MINISTRY OF TOURISM AND THE ENVIRONMENT
ENVIRONMENT DEPARTMENT**

**NATIONAL WORKING GROUP FOR
THE COUNTRY PROGRAMME**

**REPUBLIC OF SENEGAL COUNTRY PROGRAMME
FOR THE IMPLEMENTATION OF
THE MONTREAL PROTOCOL**

**UNITED NATIONS ENVIRONMENT PROGRAMME
UNEP IE/PAC**

SEPTEMBER 1993

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LIST OF ABBREVIATIONS

COTOA:	Compagnie Textile de l'Ouest Africaine (West Africa Textile Company)
CFCs:	Chlorofluorocarbons
DPS:	Direction de Prévisions et de la Statistique (Department of Forecasts and Statistics)
ENSEME:	Entreprise Sénégalaise de Mousse et d'Élastomère (Senegalese Foam and Elastomere Company)
MAC:	Mobile Air Conditioning
NGO:	Non Government Organization
ODP:	Ozone-depleting potential
ODS:	Ozone Depleting Substance
PNAE:	Plan National d'Action pour l'Environnement (National Environment Action Plan)
SAEC:	Société d'Études et d'Applications Chimiques (Chemical Studies and Applications Corporation)
SEGOA:	Société Sénégalaise d'Oxygène et d'Acétylène (Senegalese Oxygen and Acetylene Corporation)
SIEMEX:	Société Industrielle d'Emballage et de Matériaux Expansés (Industrial Packing and Expanded Materials Corporation)
UNEP:	United Nations Environment Programme

SUMMARY

S.1 The Republic of Senegal is submitting this document to the Executive Committee of the Multilateral Fund of the Montreal Protocol on Substances that Deplete the Ozone Layer as per its guidelines. The document defines the basis of a strategy for the almost-total phase out of ODS consumption by the year 1997.

INTRODUCTION

S.2 Since 1972, the Senegalese government has been working to implement a determined environmental protection policy. By ratifying the Montreal Protocol and the London Amendment on May 6, 1993, Senegal demonstrated its steadfast will to fight the production of equipment using controlled Ozone Depleting Substances (ODS) and consumption of these in accordance with international agreements.

S.3 The relevant departments of the Senegalese State and professionals interested in the use of ODS contributed at different levels to the production of the present document.

S.4 The Paris office of the United Nations Environment Programme, Industry and Environment Programme Activity Centre (UNEP IE/PAC) provided greatly appreciated technical and financial support.

CURRENT SITUATION

S.5 Senegal's consumption of ODS is 0.012 kg per capita. Therefore, Senegal belongs to the group of countries described in paragraph 1 of Article 5 of the Montreal Protocol.

S.6 Senegal has no industrial production of ODS. All the country's needs are furnished by imports through:

- Refrigeration appliance retailers, for domestic consumption;
- Agencies importing and distributing CFCs, for supplies going to industrial production and service sectors (cold-storage chambers, controlled environment, central air conditioning, etc.).

S.7 Senegal consumes the following substances:

- | | |
|----------|-----------|
| • CFC-11 | • CFC-12 |
| • R-502 | • CFC-114 |

S.8 In 1991, the total consumption for controlled substances amounted to approximately 102 ODP tonnes.

S.9 On the institutional level, a Technical Committee has already been established to ensure co-ordination of the present programme and follow-up.

S.10 In consideration of the high priority attributed to the protection of the ozone layer, the Government has made commitments to the international community by ratifying on May 6, 1993:

- The *Vienna Convention for the Protection of the Ozone Layer*; and
- The *Montreal Protocol on Substances that Deplete the Ozone Layer*.

IMPLEMENTATION OF PHASE OUT

S.11 As a Party to the Montreal Protocol, Senegal will embark on a phase out strategy starting 1993. The phase out will be 85% completed by 1997 and totally accomplished by the year 2000. This would be ten years earlier than the date called for in the Montreal Protocol. Several initiatives underlie Senegal's strategy.

- Government regulatory and legislative measures, such as a ban on CFC imports. Noting that Halons are not being used in Senegal;
- Training and public awareness for the main actors and beneficiaries of the programme as well as for the common people;
- Introduction of substitutes for ODS including taxation incentives for their import;
- Assistance in acquiring ODS alternative technology.

S.12 The government plans to take measures designed to reduce or even eliminate imports in accordance with the following programme:

- 1991-1997: 85% of ODS to be eliminated
- 1997-2000: 100% of ODS to be eliminated

GENERAL CONSIDERATIONS

ECONOMIC COST

S.13 The number of existing domestic refrigerators was estimated at 426 500 for 1991. Estimates in 2010 are 1 010 000 units. The incremental cost to the economy of the Republic of Senegal due to the implementation of the Montreal Protocol is estimated at US\$ 184 Million.

This cost has been calculated on the basis of existing data and on the premise that CFC-12 will not be available after 1997. In case of the availability of CFC refrigerant after 1997, the cost to the economy would be substantially reduced.

ACCOMPANYING PROJECTS

S.14 Considering time periods and constraints for the phase out of ODS, Senegal is requesting financial and technical assistance to implement the projects. The financial assistance amounts to approximately US\$ 487 000 for the first three years. It is intended for technical training and upgrading for service, maintenance and repair personnel; improving control and customs surveillance; a national public-awareness campaign; and equipping recovery and recycling centres. All the above will be coordinated by an institutional focal point. It would also be most useful to organize a regional seminar in Dakar in order to sensitize decision makers and large-scale importers.

PROJECT SUMMARY TABLE

PROJECT NUMBER	PROJECT TITLE	COST IN US\$
1	Creation of an Ozone Focal Point	175 000
2	Training and Upgrading for Service, maintenance and repair personnel	58 000
3	Expansion and Upgrading of Statistics Customs Network	26 000
4	National Information and Awareness Campaign	192 000
5	Recovery and Recycling Equipment	36 000
TOTAL		487 000

I. INTRODUCTION

PURPOSE

1.1 The Government of Senegal has established a national environmental protection policy that pursues solutions to problems seriously affecting the equilibrium between man and his environment.

1.2 In the context of the National Environmental Protection Policy, problems related to the global environment have been granted an important and special place, particularly in the framework of efforts to protect the ozone layer. Thus, Senegal reiterates its commitment to contribute to the global effort of protecting the Ozone Layer.

1.3 Law 92-45 of July 10, 1992 authorizes the President of the Republic of Senegal to ratify the *Vienna Convention for the Protection of the Ozone Layer*. A January 27, 1993 law also authorizes him to ratify the *Montreal Protocol on Substances that Deplete the Ozone Layer*. By virtue of these laws, Senegal ratified The Montreal Protocol and the London Amendment on May 6, 1993.

BASIC FACTS

1.4 Senegal's demographic profile can be summarized as follows:

- Rapid population growth -- approximately 3.1% per year;
- The population residing in the country was about 7 Million persons in 1988, as compared to 3 Million in 1960 and 5 Million in 1976. The average Senegalese household includes 10 persons. The number of households being estimated at 750,000 in 1992;
- An uneven geographical distribution, with a heavy concentration in the western part of the country (2730 persons/km² in Dakar);
- Rapid urban growth, from 23% in 1960 to 39% in 1988;
- A young population, with 47% under the age of 15 and 58% under the age of 20;
- An infant mortality rate that remains high, with figures of 91 and 130 per thousand live births for 1986 and 1970 respectively;
- Heavy migration on both the domestic and international levels;
- About 40% of the population living in urban areas in 1992.

1.5 The Senegalese economy is presently characterized by:

- A low level of growth in production due to a combination of unfavorable factors, including climatic irregularities and a drop in export revenues as a consequence of unstable world markets;
- A quickly expanding domestic demand for imported goods;
- A chronic deficit in its balance of payments;
- Disequilibrium in its public funds;
- An increasingly heavy debt service: US\$ 36.2 Billion in 1992;
- A 15% inflation rate.

1.6 The economic growth potential is weak because of:

- A crisis in the country's education systems;
- A growing contradiction between high consumption and low production;
- High demographic growth;
- Increasing dependency on other countries;
- Continual environmental deterioration.

THE PRESENT COUNTRY PROGRAMME

1.7 The present document examines the following:

- The current consumption of ODS;
- Forecast consumption of these substances;
- An Action Plan for the 1993 - 1997 period. This is the first phase of a process designed to control consumption of Ozone Depleting Substances (ODS) and eliminate them by 2000; and
- Senegal's institutional framework and Action Plan.

1.8 The Government of Senegal officially requests funding from the Multilateral Fund for projects stemming from the Action Plan and contained in this Country Programme.

1.9 The Country Programme was prepared by a working group formed of personnel from the Department of Industry and the Department of Commerce, both under the Ministry of Industry, Commerce and Crafts; and the Environment Department under the Ministry of Tourism and the Environment. The latter being responsible for coordination of ozone related activities.

1.10 Surveys were entrusted to a Senegalese consulting firm called "Développement-Perspective 2000."

ASSISTANCE RECEIVED

1.11 The working group that prepared the present document under the Ministry of Tourism and the Environment, Department of the Environment received assistance from the United Nations Environment Programme, Industry and Environment Programme Activity Centre (UNEP IE/PAC) in Paris, from Finland via FINNIDA, from other ministries, from manufacturers, importers and distributors who use or handle ODS and from technical bodies.

1.12 UNEP IE/CAP also provided all necessary technical assistance, information and guidance to prepare the present document.

1.13 Senegal also participated in the UNEP IE/PAC regional workshop and regional training course on refrigeration that was held in Nairobi in December 1992.

1.14 Other members of the government also assisted in the preparation of this document; the Ministry of Industry, Commerce and Crafts (Departments of Industry and Commerce); the Ministry of Economy, Finance and Planning (Customs and Statistics Departments); and the Ministry of Foreign Affairs (Department of Legal and Consular Affairs).

II. CURRENT SITUATION

METHODOLOGY OF SURVEY

2.1 Industries who use or handle ODS, the Customs Department, the Statistics Department, refrigeration and air-conditioning service, maintenance and repair personnel were contacted to provided information related to the ODS consumption in Senegal. Thus the survey focused on SEGOA, COTOA and SAEC (Hoechst), the three primary ODS importers.

2.2 Regarding demographic, political and economic data, the team used existing documentation in those fields, particularly the *Eighth Orientation Plan for the Economic and Social Development of Senegal (1989-1995)* and the *National Environment Action Plan (PNAE)*, prepared for the UNCED in Rio de Janeiro (June 1992).

2.3 Some industries, such as those related to fisheries and the service sector, certain hotels as well as the Customs Department provided the information on ODS consumption with no breakdown with respect to controlled substances. This made the task of identifying the individual controlled quantities practically impossible.

2.4 The Customs Department has data on the total weight of imported domestic refrigerators but has no available data on the number of units imported. Thus the number of domestic refrigerators imported into Senegal was estimated based on the available information and on the estimated weight of an average domestic refrigerator of 50 kg.

2.5 Senegal does not export ODS nor does it have recovery and recycling facilities.

2.6 According to repair and service companies, 1 000 grams of CFC-12 are used during recharge of a domestic refrigerator. During the additional top-up for a room air-conditioning unit 500 grams is used and for an automobile is 1000 grams is used. Data collected from the Department of Finance and Statistics indicate that 35 % of cars have air conditioning units.

PRESENT AND FORECAST LEVELS FOR CONSUMPTION OF ODS

PRESENT LEVEL

2.9 The following tables provide an overall estimate of Senegal's current use of ODS.

BREAKDOWN OF 1991 CONSUMPTION BY SUBSTANCE AND SOURCE

<u>SUBSTANCE</u>	<u>EXISTING POTENTIAL AND IMPORTS (TONNES)</u>	<u>OZONE DEPLETING POTENTIAL (ODP)</u>	<u>CONSUMPTION (ODP TONNES)</u>
Group I Annex A			
CFC-11	2.1	1.0	2.1
CFC-12	93.7	1.0	93.7
CFC-114	0.5	1.0	0.5
Mixed group			
R-502 (HCFC -22 and CFC-115)	17.0	0.34	5.8
Total	113.3		102.1

BREAKDOWN OF 1991 CONSUMPTION BY USE AND APPLICATION

<u>SECTOR/USE</u>	<u>SUBSTANCE</u>	<u>APPLICATION</u>	<u>CONSUMPTION (ODP TONNES)</u>
REFRIGERATION			
Domestic uses	CFC-12	Recharging vehicles and domestic refrigerators	For vehicles = 31.3 For domestic refrigerators = 62.4
Vehicles and domestic refrigerators			
Subtotal			93.7
Industrial uses	CFC-12	Refrigeration, hotels, ships and fisheries (recharge)	Negligible
Domestic uses	CFC-114	Recharging certain refrigeration units	0.5
Industrial uses	R-502	Initial charging for cold- storage chambers (hotels, ships, food industries)	5.8
FOAMS	CFC-11	Foam blowing for mattresses	2.1
Total			102.1

PAST AND FORECAST CONSUMPTION LEVELS

2.10 The data for the consumption of CFC is available only for 1989. ODS consumption for 1986-1991 is based on 1989 data.

SUMMARY TABLE OF CFC CONSUMPTION (1986-1991)

CONSUMPTION (ODP TONNES)

SUBSTANCE	1986	1987	1988	1989	1990	1991
Annex A Group I						
CFC-11	1.8	1.8	1.9	1.9	2.0	2.1
CFC-12	79.6	82.3	85.0	87.8	90.9	93.7
CFC-114	0.4	0.4	0.5	0.5	0.5	0.5
CFC-115 in R-502	4.9	5.1	5.3	5.4	5.6	5.8
Total	86.7	89.6	92.6	95.6	98.8	102.1

2.11 The consumption of CFC-12, CFC-114 and R-502 is on the rise in the domestic refrigerator servicing sector. This is due to the rise in the use of domestic refrigerators, freezers and air-conditioning units as a result of modernization and demographic growth. There is also growth in new food-industry units (fisheries) and in the hotel cold-storage chambers as a result of the growing tourist industry, which has become a significant sector of Senegal's economy.

2.12 The trend for CFC-11 is toward phase out. The foam industry, which had been its primary user, is replacing it with methylene chloride (CH_2Cl_2).

2.13 The following tables give the forecast consumption for CFC for the period of 1992 to 2010. The figures take into account the decreasing tendency of CFC-11 and CFC-114 use, coupled with an increasing trend in the consumption of CFC-12 and R-502.

FORECAST CONSUMPTION WITHOUT THE LIMITATIONS IMPOSED BY THE MONTREAL PROTOCOL - IN ODP TONNES

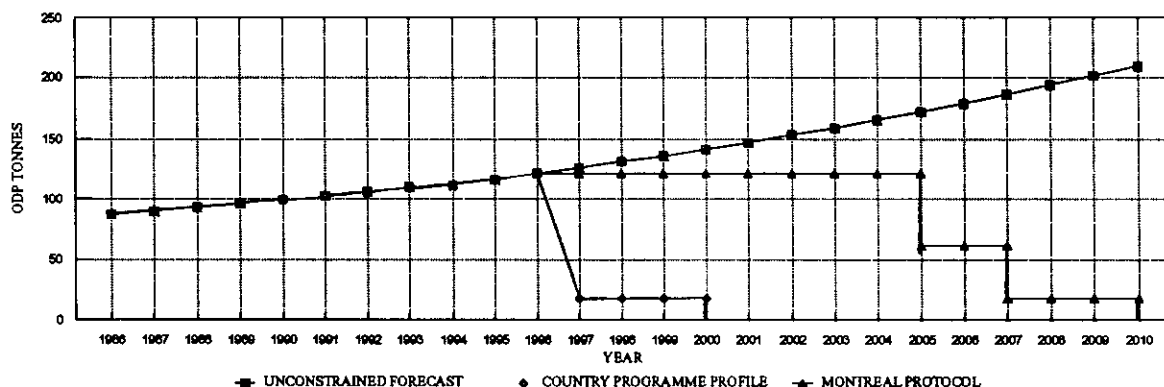
SUBSTANCE	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
CFC-11	2.1	2.1	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CFC-12	93.7	96.7	100.5	104.6	108.8	113.0	117.6	122.3	127.2	132.2
CFC-114	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7
R-502	5.8	6.0	6.2	6.5	6.7	7.0	7.3	7.6	7.9	8.2
TOTAL	102.0	105.3	109.5	111.6	116.1	120.7	125.5	130.5	135.8	141.2

SUBSTANCE	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
CFC-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CFC-12	137.6	143.1	148.8	154.8	161.0	167.4	174.1	181.1	188.3	195.9
CFC-114	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.04
R-502	8.5	8.8	9.2	9.6	9.9	10.3	10.8	11.2	11.6	12.1
TOTAL	146.8	152.7	158.8	165.2	171.2	178.6	185.8	193.2	201.0	209.0

**FORECAST CONSUMPTION WITH THE LIMITATIONS IMPOSED BY THE
MONTREAL PROTOCOL - IN ODP TONNES**

SUBSTANCE	1991	1995	1996	1997	1998	1999	2000	2001	2005	2010
CFC-11	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CFC-12	93.7	108.8	113.5	17.0	17.0	17.0	17.0	0.0	0.0	0.0
CFC-114	0.5	0.6	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.0
R-502	5.8	6.7	7.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0
TOTAL	102.0	116.1	109.5	121.1	18.1	18.1	18.1	0.0	0.0	0.0

CONSUMPTION FORECAST IN SENEGAL IN ODP TONNES



INDUSTRY STRUCTURE

USERS

2.14 Senegal's industrial ODS users and importers are very fragmented.

IMPORTERS AND DISTRIBUTORS

2.15 The following table gives the data obtained from the main importers of ODS in Senegal.

SUBSTANCES CONTROLLED BY THE MONTREAL PROTOCOL

<u>SUBSTANCE</u>	<u>COTOA (TONNES)</u>	<u>SEGOA (TONNES)</u>	<u>SAEC (TONNES)</u>	<u>OTHERS (TONNES)</u>	<u>TOTAL</u>
CFC-11	-	0.4	0.5	1.2	2.1
CFC-12	7.5	45.0	36.0	5.2	93.7
CFC-114	-	0.5	-	-	0.5
R-502	0.5	7.1	9.3	0.1	17.0
TOTAL	8.0	53.0	45.8	6.5	113.3
MARKET SHARE	7 %	47 %	40 %	6 %	100 %

2.16 COTOA is the distributor for Atochem (France), SEGOA imports from GALEX, the subsidiary in Marseilles (France) and SAEC distributes products for HOECHST (Germany).

REFRIGERATION AND AIR-CONDITIONING SECTOR

2.17 The customers of CFC importers and distributors are mainly repair shops and large-scale users of refrigeration and air conditioning equipment in hotels and in the food industries. CFC-12, HCFC-22 and R-502 are used in recharging refrigerators, air-conditioning units and cold-storage chambers.

2.18 There are about 200 refrigeration and air-conditioning service, maintenance and repair workshops in Senegal.

FOAM SECTOR

2.19 Very few industries in Senegal still use CFC-11 for foam blowing. The trend in this sector is to replace CFC-11 by methylene chloride as a blowing agent for flexible slabstock foam.

2.20 PES (Plastiques-Élastomères du Sénégal) is a foam blower who uses CFC-11. This is a private company that produces flexible and rigid foams. It consumes 1.2 tonnes/year of CFC-11.

2.21 The total consumption in 1991 of CFC-11 by the other foam blowers is less than 1.0 tonne per year.

HALONS

2.22 Fire protection in Senegal mostly uses water sprinkler systems. Portable units mostly use dry chemicals and carbon dioxide. Halon is not used in Senegal.

INSTITUTIONAL FRAMEWORK

2.23 The institution in charge of environmental policy of the Government is the Ministry of Tourism and the Environment. This ministry is responsible for executing, coordinating and monitoring the measures proposed in the Action Plan.

2.24 The Environment Department within the Ministry of Tourism and the Environment was created by Presidential Decree 75-724 on June 30, 1975. It has been entrusted with the mandate of implementing the Senegal's environmental policy.

2.25 In the process of implementing this policy, the Environment Department of the Ministry of Tourism and Environment works in close cooperation with other governmental bodies to coordinate and follow-up with other departments and organizations involved in the field of the environment.

2.26 The National Commission works under the Ministry of Tourism and the Environment and is responsible for liaison with other Government and private organizations. The technical arm of this commission is the Environment Department that is responsible for coordinating the country programme.

2.27 A Technical Committee composed of members of the Ministry of Industry, the Ministry of Commerce and the Environment Department of the Ministry of Tourism and the Environment will permanently be in charge of monitoring and piloting the activities of the Country Programme.

2.28 The private industrial sector is willing to take part in establishing substitute technology and alternative products to implement the provisions of the Montreal protocol.

GENERAL POLICY FRAMEWORK

2.29 In order to comply with the provisions of the Montreal Protocol, the Government will use all means without affecting economic and social development.

2.30 The government considers that the only available alternative involves fiscal policies, managerial methods and controls.

2.31 Nearly 98 % of ODS consumption in the country is for the service, maintenance and repair of domestic refrigerators. There are about 200 service, maintenance and repair

workshops in the country. The Government will thus give this sector a high priority in implementing CFC phase out.

2.32 Consumers of ODS are key to phasing out ozone-depleting substances. In Senegal only a small proportion of them are aware of ozone-layer destruction. Public awareness and education in the prevention of damage to refrigerators would thus substantially decrease the need for repair and substantially reduce the consumption of ODS. Therefore public participation is an important element in ODS phase out. This can be materialized through public sensitization, information and education.

2.33 The overall policy of Senegal includes the environmental-protection options put forth in the national environment policy. In general, this policy is an attempt to consolidate, meet and integrate economic and social development guidelines, while placing special emphasis on prevention and environmental protection.

2.34 Economic and financial policies will be oriented to include incentives to use substitutes and reduce use of ODS.

2.35 Control over oriented at the consumer level. In the aerosol industry, consumption of ODS will be controlled by the promotion of ODS free products. Import of products containing ODS will be discouraged via the imposition of levies and taxes.

2.36 New manufacturing facilities will only be allowed to start after obtaining a license. New production facilities would obtain a license only after thorough assurance to environmental protection.

2.37 In accordance with the regulations, considerable advantages are offered to those firms that develop local resources and technological innovations that protect the environment.

2.38 The objectives of the New Industrial Policy in Senegal are:

- Re stabilize the country's balance of payments;
- Stabilize public finances and take liberal measures that favor corporate initiative and accountability in a competitive framework.

2.39 The powers held by the government for the purpose of implementing such policy have been granted through legislators pertaining to; customs, investments, and environment.

GOVERNMENT AND INDUSTRY RESPONSES TO THE MONTREAL PROTOCOL

2.40 Senegal ratified the *Vienna Convention for the Protection of the Ozone Layer* on May 6, 1993. It has also ratified the Montreal Protocol and its London Amendment on May 6, 1993.

2.41 The development of the Country Programme is very significant in that it will help manufacturers to obtain technical information that is essential in understanding the issues related to ODS and the costs of phase out.

2.42 ODS consumers have responded positively to the Montreal Protocol. Some have already abandoned the use of ODS in favor of less-harmful products. In the aerosol industry, manufacturers have replaced ODS by stench-free butane. Some ODS consumers are aware that they will eventually have to use substitutes.

III. IMPLEMENTATION OF PHASE OUT

STRATEGY STATEMENT BY THE GOVERNMENT

3.1 As a Party to the Montreal Protocol, Senegal will start undertaking phasing out ODS in 1993 and continue until 1997, when significant progress toward phase out should be achieved. For this purpose, the following measures will be taken:

- Provide training to service, maintenance and repair personnel in the refrigeration sector;
- Encourage recycling of CFC-12 in the refrigeration/air-conditioning sector;
- Control the import of aerosol and fire extinguisher products containing ODS by increasing customs duties;
- Ensure the introduction of substitute products for the refrigeration and air-conditioning sector as soon as the technology is fully developed and commercially available, considering that the bulk of Senegal's CFC consumption is related to this sector;
- Encourage manufacturers who introduce alternative technologies; the Environmental Code allows for a tax exemption on all equipment which reduce pollution or for devices which protect the environment;
- Provide information and sensitization for the informal sector of the economy;
- Provide public awareness of the ozone issue; education and training via service, maintenance and repair personnel and the media.

3.2 The government aims at controlling ODS use as described in the Action Plan of the Country Programme, reducing consumption by 85% from 1993 to 1997 (based on 1993 consumption figures). The remaining 15% would be used after 1997 for very-specific needs in which alternatives are not immediately available. **The target objective of ZERO ODS will be reached in 2000 provided that alternative chemicals are made commercially available and the measures described in the Action Plan are implemented.** This is ten years ahead of what is stipulated in the Montreal Protocol for countries referred to as paragraph 1 of Article 5 countries.

3.3 Since ODS consumption within the country is based on imported products, a quota on the import of these products will be essential for phase-out. A ban on the import of aerosol products containing CFC as well as a ban on the import of Halons will be declared. The Government will also announce a total ban on ODS containing products after the year 2000.

3.4 Another consideration in the government's strategy is minimizing the economic burden caused by phase-out of ODS containing products.

ACTION PLAN

3.5 The Action Plan includes two main components:

1. The measures to be taken by the government to articulate the above mentioned strategies;
2. The different projects to be undertaken by industry to implement the Government Action Plan.

PLANNED GOVERNMENT MEASURES

3.6 The Government actions are essentially composed of:

- Information and awareness campaign regarding the risks involved with use of ODS use and formulation of codes for use of appliances containing alternate substances.
- In 1994, the import of all ODS-containing aerosols (cosmetics and insecticides) will be banned.
- Promotion of local cosmetics and insecticides that do not use ODS by "Ozone Friendly" labels.
- A comprehensive training programme for service, maintenance and repair personnel and procurement of inert gases (such as Nitrogen) for flushing the refrigeration systems, recovery and recycling of CFC;
- Complete phase out of CFC-11 as a foam blowing agent could also be achieved in the near future, since cost effective technology is available.

3.7 The above measures may reduce CFC consumption by some 85 % between 1993 and 1997.

3.8 Other measures that will lead to the phase out of ODS by the year 2000 are:

- Sensitizing importers and consumers (service, maintenance and repair personnel, the population, small industrial units) with regard to the urgency of limiting leakage and consumption of ODS and use of alternatives;
- Facilitating a voluntary agreement between the Government, manufacturers and importers on the use of substitutes. Such is the case of the foam industry, which started replacing CFC-11 with methylene chloride, in the fisheries industry use of NH₃ (ammonia) in cold-storage chambers, etc.;
- Public awareness campaigns through radio, television and newspapers;
- Increased taxation on imported ODS containing products and equipment and the introduction of substitutes by offering incentives;
- Establishment of a focal point (the National Committee described in Chapter 2), responsible for the implementation of the Action Plan. The focal point will work in association with the Technical Committee for:
 - Monitoring of implementation progress;
 - Organizing training seminars for service, maintenance and repair personnel;
 - Facilitating work for public awareness and education campaigns.

INCREMENTAL COST TO THE NATIONAL ECONOMY

3.9 The incremental cost to the economy of the country has been calculated based on the premise that CFC-12 will not be available after the year 1997. In case of the availability of CFC refrigerant past 1997, the cost to the economy would be substantially reduced. The incremental costs are based on the following:

- All costs are in 1992 Dollars
- Cost for servicing domestic refrigerators and MAC units,
without the Montreal Protocol = US\$ 14 Million

- Costs for servicing domestic refrigerators and MAC units with the Montreal Protocol applied = US\$ 17 Million
- Incremental costs for servicing domestic refrigerators and MAC units with the Montreal Protocol applied = US\$ 3 Million
- Incremental cost due to premature retirement and purchasing of refrigerators and MAC units = US\$ 181 Million
- The incremental cost to the economy due to the application of the Montreal Protocol = US\$ 184 Million

DATA RELATED TO DOMESTIC REFRIGERATORS

<u>PERIOD</u>	<u>ESTIMATED NUMBER</u>
1986	362,490
1991	426,500
1995	569,116
1997	614,373
2000	689,095
2005	834,366
2010	1,010,263
1997-2010	Average number imported annually = 30,000

SUMMARY TABLE OF THE BASIC DATA USED IN THE CALCULATIONS

<u>ITEM</u>	<u>VALUE</u>	<u>YEARS</u>
POPULATION	8.2 Million	1992
FORECAST POPULATION GROWTH	3.1%	1991-2010
GNP	US\$ 5.023 Billion (5 032 000 000)	1991
FORECAST GNP GROWTH	3.2%	1992-2010
GNP PER CAPITA	US\$ 632	1991
NUMBER OF REFRIGERATORS	426 500	1991
NUMBER OF REFRIGERATORS	1 010 263	2010
AVERAGE COST OF A REFRIGERATOR	US\$ 1 000	1991
INCREMENTAL COST FOR AN HFC-134a REFRIGERATOR	US\$ 100	
AVERAGE RECHARGE FOR A CFC-12 REFRIGERATOR	1.0 Kg 0.9 0.7 0.5 0.4	Prior to 1994 in 1994 in 1995 in 1996 after 1996
AVERAGE RECHARGE FOR A HFC-134a REFRIGERATOR	0.35 Kg	After 1996
FREQUENCY OF REFRIGERATOR RECHARGE	ONCE	EVERY 5 YEARS
COST OF 1 KG OF CFC-12	US\$ 12	1991
COST OF 1 KG OF HFC-134a	US\$ 60	
NUMBER OF AIR-CONDITIONED VEHICLES	31 340	1991
AVERAGE RECHARGE FOR A VEHICLE AIR CONDITIONING UNIT	1.0 KG	1991
DISCOUNT RATE	10%	1992

PROPOSED PROJECTS

3.10 The following table gives a summary of the proposed projects included in this country programme. The projects are presented in the order of priority. Detailed project documents are also given separately.

PROJECT SUMMARY TABLE

PROJECT NUMBER	PROJECT TITLE	COST IN US\$
1	Creation of an Ozone Focal Point	175 000
2	Training and Upgrading for Service, maintenance and repair personnel	58 000
3	Expansion and Upgrading of Statistics Customs Network	26 000
4	National Information and Awareness Campaign	192 000
5	Recovery and Recycling Equipment	36 000
TOTAL		487 000

RELATION BETWEEN ACTION PLAN AND PROJECTS

3.11 The measures presented in the framework of the overall Action Plan are based on three guidelines:

- Regulatory changes designed to facilitate monitoring of business transactions related to the introduction of ODS into the national market;
- Training and upgrading for the main actors and beneficiaries; this measure is likely to increase the Country Programme's chances of success;
- Assistance for professionals in the CFC sector (service, maintenance and repair personnel, manufacturers, etc.) during the transitional phase so as to minimize venting during servicing.

3.12 The proposed projects and the accompanying measures lie within the framework of the above guidelines and will have a synergetic effect on the phase out of ODS by 2000.

3.13 Periodic assessment and updates on the programme will be carried out to ensure that the intended objectives are being followed.

TABLE OF PROJECTS AND EXPECTED IMPACTS

PROJECT NUMBER	IMPACTS	INFORMATION AWARENESS	CONTROL OVER CFC IMPORTS	INTRODUCTION OF SUBSTITUTE PRODUCTS	INTRODUCTION OF ALTERNATIVE TECHNOLOGY
1	OZONE FOCAL POINT	XXX	XX	XX	XX
2	TRAINING AND UPGRADING OF SERVICE, MAINTENANCE AND REPAIR PERSONNEL	XXX	XXX	XXX	XXX
3	EXPANSION AND UPGRADING OF STATISTICS NETWORK FOR CUSTOMS	XXX	X		
4	NATIONAL INFORMATION CAMPAIGN	XXX	XX	X	X
5	RECOVERY AND RECYCLING EQUIPMENT		XXX	XXX	XX

X: Relative impact

XX: Positive impact

XXX: Direct impact

GOVERNMENT'S ROLE IN IMPLEMENTING THE STRATEGY

3.14 In the framework of carrying out the government strategy, the National Commission will be responsible for implementing the Country Programme. It will be in charge of coordinating, monitoring and assessing the measures undertaken to phase-out ODS.

3.15 This work would be done with the help of organizations that have technical expertise such as UNEP IE/PAC.

BUDGET AND FUNDING PROGRAMME

3.16 The Action Plan and budget given in the Summary Table constitute the first stage of the process of phasing out. The budget covers three years (1994-1996). It allows for the establishment of the necessary systems to set up, coordinating, monitoring and evaluating the progress of ODS phase out.

MONITORING SYSTEM

3.17 The project for upgrading the statistics network of the Department of Customs, DTAI and DPS (Department of Forecasts and Statistics) will lead to the effective monitoring system for import of ODS.

3.18 The National Commission, which is the Focal Point, will be responsible for organizing regular meetings with interested parties and monitor the progress in the proposed projects.

3.19 The National Commission will also be responsible for providing an annual report on consumption and for taking corrective measures total ODS phase-out.

REPUBLIC OF SENEGAL

**MINISTRY OF TOURISM AND THE ENVIRONMENT
ENVIRONMENT DEPARTMENT**

**NATIONAL WORKING GROUP FOR
THE COUNTRY PROGRAMME**

PROJECTS

**REPUBLIC OF SENEGAL COUNTRY PROGRAMME
FOR THE IMPLEMENTATION OF
THE MONTREAL PROTOCOL**

SEPTEMBER 1993

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PROJECT SUMMARY TABLE

PROJECT NUMBER	PROJECT TITLE	COST IN US \$
1	CREATION OF AN OZONE FOCAL POINT	175 000
2	TRAINING AND UPGRADING FOR SERVICE, MAINTENANCE AND REPAIR TECHNICIANS	58 000
3	EXPANSION AND UPGRADING OF STATISTICS CUSTOMS NETWORK	26 000
4	NATIONAL INFORMATION AND AWARENESS CAMPAIGN	192 000
5	RECOVERY AND RECYCLING EQUIPMENT	36 000
TOTAL		487 000

PROJECT PROPOSAL: NUMBER 1

COUNTRY: SENEGAL

PROJECT TITLE: CREATION OF AN OZONE FOCAL POINT

NATIONAL COORDINATING BODIES: THE OZONE FOCAL POINT
UNDER THE SUPERVISION OF THE
MINISTRY OF TOURISM AND THE ENVIRONMENT
ENVIRONMENT DEPARTMENT

EXECUTING AGENCY: UNEP

SECTORS COVERED: ALL SECTORS

ODS CONSUMPTION BY SECTORS COVERED: 102.3 ODP TONNES IN 1991

PROJECT DURATION: THREE YEARS

PROJECT IMPACT:

- MONITOR PHASE-OUT OF ODS ACTIVITIES IN ACCORDANCE WITH THE ACTION PLAN DESCRIBED IN THE COUNTRY PROGRAMME
- IMPROVED CAPACITY OF STATE STRUCTURES RESPONSIBLE FOR ODS CONTROL AND USE
- CONTRIBUTION BY THE COUNTRY TO THE PROTECTION OF THE OZONE LAYER

REQUESTED MULTILATERAL FUND CONTRIBUTION: US \$ 175 000

INTRODUCTION

THE ACTION PLAN RELATED TO THE COUNTRY PROGRAMME WILL BE IMPLEMENTED IN CLOSE COOPERATION WITH INSTITUTIONAL BODIES (MINISTRIES AND OTHER INSTITUTIONS INVOLVED IN ODS PHASE-OUT). IT WILL ALSO BE NECESSARY TO CREATE SPECIALIZED BODIES TO PROVIDE FOR EXECUTION AND FOLLOW-UP OF PROGRAMME MEASURES. THE OZONE FOCAL POINT WILL BE ONE OF SUCH BODIES.

ORGANIZATION OF THE OZONE FOCAL POINT

THE OZONE FOCAL POINT COMES UNDER THE ENVIRONMENT DEPARTMENT OF THE MINISTRY OF TOURISM AND THE ENVIRONMENT.

THE OZONE FOCAL POINT, WHICH IS COMPOSED OF REPRESENTATIVES FROM GOVERNMENT, INDUSTRY AND OTHER RELEVANT INSTITUTIONS, WILL BE THE MAIN BODY FOR COORDINATION AND FOLLOW-UP ON THE ACTION PLAN DESCRIBED IN THE COUNTRY PROGRAMME. THE MEASURES IT WILL TAKE INCLUDE ADOPTION OF THE ACTION PLAN, STRATEGY, TRAINING, SENSITIZATION AND FINANCIAL MANAGEMENT.

OZONE FOCAL POINT TEAM

TECHNICAL-ADMINISTRATIVE AND FINANCIAL SUPPORT WILL BE PROVIDED BY AN OZONE FOCAL POINT SECRETARIAT, MADE UP OF A TEAM OF TWO PROFESSIONALS AND ONE SECRETARY.

ACTIVITIES AND SCOPE OF PROJECT

IF THE OZONE FOCAL POINT IS TO ATTAIN THE ABOVE OBJECTIVES, IT WILL HAVE TO UNDERTAKE SEVERAL ACTIVITIES, COMPRISING BUT NOT LIMITED TO THE FOLLOWING:

- TAKE PART IN SETTING TAX LEVELS AND PREPARING CRITERIA FOR BANS SO AS TO APPLY THE STRATEGY TO THE ACTION PLAN DESCRIBED IN THE COUNTRY PROGRAMME;
- AS THE COUNTRY PROGRAMME IS BEING IMPLEMENTED, EACH STAGE WILL INCLUDE AWARENESS MEASURES;
- SET UP A DATA BANK, INCLUDING INFORMATION ON ODS USE IN THE COUNTRY;
- MAKE AN ANNUAL REPORT, AS REQUIRED, TO THE MONTREAL PROTOCOL AND THE OZONE SECRETARIAT ON ODS CONSUMPTION IN THE COUNTRY;

- BE RESPONSIBLE FOR THE IMPLEMENTATION OF TRAINING PROGRAMMES AND FOLLOW-UP ON THEM;
- MONITOR AND CONTROL PROJECTS THAT ACCELERATE ODS PHASE-OUT;
- BE RESPONSIBLE FOR FUNDING OBTAINED FROM THE MULTILATERAL FUND.

PUBLIC AWARENESS

AS THE COUNTRY PROGRAMME IS BEING IMPLEMENTED, EACH STAGE WILL INCLUDE AWARENESS MEASURES CONSISTING OF:

- INFORMATION ON STEPS TAKEN, WITH REMINDERS REGARDING THE REGULATORY FRAMEWORK AND TARGET OBJECTIVES; THIS COURSE OF ACTION WILL BE UNDERTAKEN CONCRETELY WITH THE RELEVANT GOVERNMENTAL AND OTHER CONCERNED BODIES VIA THE MEDIA AND OTHER MEANS OF INFORMATION;
- ESTABLISHMENT OF A FOLLOW-UP SYSTEM FOR CONVERSION WITH RESPECT TO THE IMPLEMENTATION OF ACTION PLAN;
- AN INVENTORY AND ANALYSIS OF THE DIFFICULTIES ENCOUNTERED SO AS TO FIND SOLUTIONS AND INFORM THE PARTIES CONCERNED.

MARKET CONTROL

THE GOVERNMENT WILL SET UP AN APPROPRIATE TAXATION SYSTEM FOR THE TRANSITIONAL PERIOD AND WILL RECEIVE SUPPORT FROM THE MONTREAL PROTOCOL FINANCIAL MECHANISMS IN ORDER TO MINIMIZE THE COSTS REQUIRED BY THIS TECHNOLOGICAL TRANSFER.

THE FOLLOWING MEASURES WILL BE IMPLEMENTED:

- A BAN ON CFCS AS AEROSOL PROPELLANTS AND THE IMPLEMENTATION OF COMPULSORY IDENTIFICATION OF PRODUCTS THAT DO NOT CONTAIN ODS WITH THE "OZONE FRIENDLY" LOGO;
- TAXATION ON ODS AND ON EQUIPMENT CONTAINING THEM WHEN ALTERNATE TECHNOLOGIES WILL BECOME COMMERCIALY AVAILABLE;
- A BAN ON THE IMPORT OF USED OR REFURBISHED EQUIPMENT THAT OPERATES ON ODS OR RECYCLED SUBSTANCES;

- ESTABLISHMENT OF A RECOVERY INCENTIVE SYSTEM BY GRANTING OPERATING LICENSES.

MONITORING

THE OZONE FOCAL POINT WILL BE RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING AN OPERATIONAL SYSTEM FOR EFFECTIVELY MONITORING ODS PHASE-OUT IN ACCORDANCE WITH THE ACTION PLAN. THE MONITORING SYSTEM THAT HAS BEEN CONTEMPLATED WILL BE COMPRISED OF A NUMBER OF COMPONENTS, SUCH AS:

- GATHERING INFORMATION THAT WILL BECOME AVAILABLE FROM THE CUSTOMS DEPARTMENT IN RELATION TO THE IMPORT OF ODS AND ODS-CONTAINING PRODUCTS;
- REPORTING REGULARLY ON ODS CONSUMPTION (TYPES AND AMOUNTS), BROKEN DOWN BY USER SECTORS, AND ON PROGRESS IN THE IMPLEMENTATION OF SPECIFIC TRANSFORMATION PROCESSES AND OTHER PROJECTS IDENTIFIED IN THE ACTION PLAN;
- MAKING INDEPENDENT AND REGULAR INSPECTIONS AND ASSESSMENTS IN ORDER TO CONFIRM REPORTS;
- REVIEW AND ESTABLISH FINANCIAL AND TECHNICAL SUPPORT NEEDS FOR THOSE SECTORS CONCERNED BY THE ACTION PLAN.

PROJECT BUDGET

BUDGET TO BE PROVIDED BY THE GOVERNMENT OF THE REPUBLIC OF SENEGAL

THE BUDGET TO BE PROVIDED BY THE GOVERNMENT AMOUNTS TO US \$ 200 000. THIS THREE-YEAR BUDGET WILL COVER THE FOLLOWING COSTS:

- OFFICE SPACE, FURNITURE, BASIC EQUIPMENT, ETC.;
- VEHICLES, DRIVERS, GASOLINE, MAINTENANCE, ETC.;
- OTHER TRANSPORTATION COSTS;
- BASIC SALARIES FOR SUPPORT STAFF;
- HONORARIUMS AND EXPENSES FOR SPECIALIZED SENEGALESE CONSULTANTS.

BUDGET REQUESTED FROM THE MULTILATERAL FUND

THIS BUDGET, WHICH AMOUNTS TO US \$ 175 000, IS ALSO INTENDED TO COVER THREE YEARS.

BUDGET REQUESTED FROM THE MULTILATERAL FUND

1.	CAPITAL EXPENDITURE	YEAR 1	YEAR 2	YEAR 3	TOTAL
	OFFICE EQUIPMENT				
	PERSONAL COMPUTER WITH DISK DRIVE	3 500			
	MODEM	500			
	POWER STABILIZER	500			
	PRINTER AND SOFTWARE	3 500			
	PHOTOCOPIER	2 000			
	TYPEWRITER	500			
	FAX	1 000			
	SUBTOTAL	11 500			11 500
2.	RECURRING EXPENSES				
	PERSONNEL: INCENTIVES				
	MANAGERIAL STAFF	18 000	18 000	18 000	
	SUPPORT STAFF	6 000	6 000	6 000	
	SUBTOTAL	24 000	24 000	24 000	72 000
3.	OPERATING COSTS				
	PAPER, PRINTING ETC.	15 000	12 000	10 000	
	INTERNAL TRANSPORTATION	7 500	6 000	6 000	
	TELECOMMUNICATIONS	4 000	4 000	4 000	
	PUBLIC UTILITIES (ELECTRICITY, WATER, ETC.)	8 000	8 000	7 000	
	SERVICING FOR EQUIPMENT	-----	2 500	2 500	
	SUBTOTAL	34 500	30 000	27 000	91 500
	GRAND TOTAL	70 000	54 000	51 000	175 000

PROJECT PROPOSAL: NUMBER 2

COUNTRY: SENEGAL

PROJECT TITLE: TRAINING AND UPGRADING FOR SERVICE,
MAINTENANCE AND REPAIR TECHNICIANS

NATIONAL COORDINATING BODIES: THE OZONE FOCAL POINT UNDER THE MINISTRY
OF TOURISM AND THE ENVIRONMENT

EXECUTING AGENCY: UNEP JOINTLY WITH UNIDO

SECTORS COVERED: REFRIGERATION

**ODS CONSUMPTION BY SECTORS
COVERED:** 93.6 ODP TONNES IN 1991

PROJECT DURATION: THREE YEARS

PROJECT IMPACT:

- TO PROVIDE SUITABLE FOLLOW-UP AND
REACH PLANNED OBJECTIVES ACCORDING
TO SCHEDULE;
- TO TRAIN REFRIGERATION TECHNICIANS

**REQUESTED MULTILATERAL FUND
CONTRIBUTION:** US \$ 94 800

JUSTIFICATION

IN ADDITION TO REDUCING DAMAGE TO THE OZONE LAYER, THE PROJECT WILL MAKE IT POSSIBLE, THROUGH ODS RECOVERY, TO SAVE SOME 85% OF CFCS USED IN SERVICE, MAINTENANCE AND REPAIR.

IN ORDER TO PROVIDE SUITABLE FOLLOW-UP AND REACH PLANNED OBJECTIVES ACCORDING TO SCHEDULE, PROFESSIONAL TRAINING FOR HANDS-ON SERVICE, MAINTENANCE AND REPAIR PERSONNEL IS ESSENTIAL.

ACCORDING TO ESTIMATES THERE ARE APPROXIMATELY 200 SERVICE, MAINTENANCE AND REPAIR SHOPS IN SENEGAL. 100 OF THESE ARE LOCATED IN THE DAKAR REGION. OF THESE 200, ONE-THIRD HAVE "PROFESSIONALS" WHO HAVE BEEN PREVIOUSLY TRAINED. THE REST HAVE RECEIVED A CERTAIN DEGREE OF TRAINING SO THAT THEY ARE CAPABLE OF CARRYING OUT MINOR SERVICE, MAINTENANCE AND REPAIR.

TWO PHASES OF TRAINING WILL BE SET UP. THE FIRST PHASE WILL BE FOR THE "PROFESSIONAL" TECHNICIANS AND WILL BE HELD FOR ONE WEEK IN DAKAR. MUCH OF THE TRAINING WILL COVER HANDS ON WORKSHOPS AND LECTURES WITH MUCH INFORMATION ON DESTRUCTION OF THE OZONE LAYER AND THE PROVISIONS OF THE MONTREAL PROTOCOL. ONE OF THE MAJOR OBJECTIVES IS TO TRAIN-THE-TRAINERS FOR PHASE TWO. IN THIS FIRST PHASE ONLY UNEP EXPERTS WILL PROVIDE INSTRUCTION.

FOLLOWING THE FIRST PHASE, THE REMAINING TWO-THIRDS WILL RECEIVE TRAINING FROM INSTRUCTORS RECRUITED FROM THE FIRST COURSE AND ASSISTED BY A UNEP EXPERT.

THE FOCAL POINT WILL ORGANIZE THESE SEMINARS.

BUDGET

PROFESSIONAL TRAINING IN 1993

FIRST PHASE OF TRAINING SESSIONS

THE FOLLOWING IS THE COST ESTIMATE FOR THE FIRST PHASE OF THE TRAINING SEMINARS.

THE TOTAL IS US \$ 26 000.

DESCRIPTION	US DOLLARS
SERVICES OF EXPERTS FOR TWO WEEKS	15 000
LOGISTICS	
·MEETING ROOM	5 000
·RENTAL OF EQUIPMENT FOR MEETING INCLUDING THE SERVICES OF A TECHNICIAN	1 000
·INTERNAL TRANSPORTATION	2 000
·PHOTOCOPIES AND TEACHING MATERIAL	3 000
TOTAL	26 000

SECOND PHASE OF TRAINING SESSIONS

THE FOLLOWING IS THE COST ESTIMATE FOR PHASE TWO OF THE SEMINARS. THESE SESSIONS WILL COVER THE TRAINING OF THE REMAINDER OF THE TECHNICIANS THAT WERE NOT TRAINED DURING THE FIRST PHASE. MUCH OF THE TRAINING WILL BE DONE BY TECHNICIANS TRAINED DURING THE FIRST PHASE SESSION.

THE TOTAL IS US \$ 32 000.

TRAINING OF OTHER GROUPS

DESCRIPTION	US DOLLARS
FOUR SESSIONS FOR 35 PEOPLE	32 000
TOTAL	32 000

TOTAL PROJECT COST

DESCRIPTION	US DOLLARS
PHASE ONE SESSIONS	26 000
PHASE TWO SESSIONS	32 000
TOTAL	58 000

PROJECT PROPOSAL: NUMBER 3

COUNTRY: SENEGAL

PROJECT TITLE: EXPANSION AND UPGRADING OF STATISTICS
CUSTOMS NETWORK AND DEPARTMENT OF
STATISTICS

NATIONAL COORDINATING BODIES:
THE OZONE FOCAL POINT UNDER THE MINISTRY
OF TOURISM AND THE ENVIRONMENT,
ENVIRONMENT DEPARTMENT

EXECUTING AGENCY: UNEP

SECTORS COVERED: ALL SECTORS

**ODS CONSUMPTION BY SECTORS
COVERED:** 102.3 ODP TONNES IN 1991

PROJECT DURATION: TWO YEARS

PROJECT IMPACT: TO EXPAND AND UPGRADE THE STATISTICS
CUSTOMS NETWORK AND THE DEPARTMENT OF
STATISTICS (DEPARTMENT OF FORECASTS AND
STATISTICS)

**REQUESTED MULTILATERAL FUND
CONTRIBUTION:** US \$ 30 800

PURPOSE

THIS PROJECT IS DESIGNED TO EXPAND AND UPGRADE THE STATISTICS CUSTOMS NETWORK AND THE DEPARTMENT OF STATISTICS (DEPARTMENT OF FORECASTS AND STATISTICS) IN CLOSE COOPERATION WITH THE SGS (SOCIÉTÉ GÉNÉRALE DE SURVEILLANCE). SGS IS NATIONALLY RESPONSIBLE FOR QUALITY CONTROLS ON ALL CONSUMER PRODUCTS.

JUSTIFICATION

IN RESPONSE TO THE RECOMMENDATIONS OF THE MONTREAL PROTOCOL COMMITTEE THAT STUDIED IMPROVEMENTS TO THE CUSTOMS DEPARTMENTS REGARDING THE REGISTRATION OF ODS UNDER THE BRUSSELS HARMONIZED SYSTEM SUBCATEGORIES, THE OBJECTIVES OF THIS PROJECT WILL BE:

- AVAILABILITY OF STATISTICS ON ALL ODS; PRODUCTS, APPLIANCES, MACHINES OR EQUIPMENT CONTAINING OR OPERATING WITH ODS;
- CONTROL OVER ALL IMPORTED ODS OR ODS-BASED PRODUCTS.

THIS PROJECT WILL FACILITATE MORE-EFFICIENT CONTROL OVER THE ODS CONSUMPTION AND WILL CONSTITUTE THE BASIS FOR A MONITORING NETWORK. THE PROJECT WILL REQUIRE NEW IMPORT-MANAGEMENT SOFTWARE. THEREFORE, AN EXPERT IN CUSTOMS SYSTEMS (WITH SPECIFIC KNOWLEDGE OF ODS) WILL BE NEEDED TO TRAIN ABOUT 20 PERSONS FOR FIVE DAYS. THEREAFTER, THE SERVICES OF TWO COMPUTER AND ODS-TECHNOLOGY EXPERTS MAY BE REQUIRED FOR ONE MONTH.

BUDGET
TRAINING FOR CUSTOMS OFFICERS IN 1993

THE FOLLOWING ARE THE COST ESTIMATE FOR THIS PROJECT.

DESCRIPTION	US DOLLARS
-SERVICES OF AN EXPERT FOR ONE WEEK	8 750
-SERVICES OF AN EXPERT ON THE BRUSSELS HARMONIZED SYSTEM	8 750
LOGISTICS	
·MEETING ROOM	7 600
·RENTAL OF EQUIPMENT FOR MEETING INCLUDING THE SERVICES OF A TECHNICIAN	1 500
·INTERNAL TRANSPORTATION	1 000
·PHOTOCOPIES AND TEACHING MATERIAL	3 200
TOTAL	30 800

PROJECT PROPOSAL: NUMBER 4

COUNTRY: SENEGAL

PROJECT TITLE: NATIONAL INFORMATION AND AWARENESS CAMPAIGN

NATIONAL COORDINATING BODIES: THE OZONE FOCAL POINT UNDER THE MINISTRY OF TOURISM AND THE ENVIRONMENT, ENVIRONMENT DEPARTMENT

EXECUTING AGENCY: UNEP

SECTORS COVERED: ALL SECTORS

ODS CONSUMPTION BY SECTORS COVERED: 102.3 ODP TONNES IN 1991

PROJECT DURATION: TWO YEARS

PROJECT IMPACT: ORGANIZATION OF MEDIA CAMPAIGNS AND THE PUBLICATION OF BROCHURES TO THE PUBLIC AND TO BE WIDELY DISTRIBUTED IN SCHOOLS

REQUESTED MULTILATERAL FUND CONTRIBUTION: US \$ 192 000

PURPOSE

THIS PROJECT INCLUDES THE ORGANIZATION OF MEDIA CAMPAIGNS AND THE PUBLICATION OF BROCHURES TO BE WIDELY DISTRIBUTED TO THE PUBLIC AND IN SCHOOLS.

THOUGH ONLY A SMALL PROPORTION OF CONSUMERS IS AWARE OF OZONE-LAYER DESTRUCTION, THE CONSUMERS MUST PLAY A ROLE IN PHASING OUT OZONE-DEPLETING SUBSTANCES. PUBLIC AWARENESS AND EDUCATION IN THE PREVENTION OF DAMAGE TO REFRIGERATORS WOULD SUBSTANTIALLY DECREASE THE NEED FOR REPAIR AND CONSEQUENTLY SUBSTANTIALLY REDUCE THE CONSUMPTION OF ODS. THEREFORE, PUBLIC PARTICIPATION IS AN IMPORTANT ELEMENT IN ODS PHASE OUT. THIS CAN BE MATERIALIZED THROUGH PUBLIC SENSITIZATION, INFORMATION AND EDUCATION. THE POPULATION WOULD THEN FEEL ITS OBLIGATION AND HAVE ITS OWN OVERRIDING INTEREST THUS BECOMING THE MAIN ACTOR IF ANY DEVELOPMENT OR PROTECTION PROGRAMME IS TO SUCCEED.

PROJECT BUDGET

	<u>1993</u>	<u>1994</u>	<u>TOTAL</u>
MEDIA: RADIO, TELEVISION, NEWSPAPERS	48 000	48 000	96 000
PUBLICATION OF INFORMATION BROCHURE	48 000	48 000	96 000
TOTAL IN US DOLLARS	96 000	96 000	192 000

PROJECT PROPOSAL: NUMBER 5

COUNTRY:	SENEGAL
PROJECT TITLE:	RECOVERY AND RECYCLING EQUIPMENT
NATIONAL COORDINATING BODIES:	THE OZONE FOCAL POINT UNDER THE AUTHORITY OF THE MINISTRY OF TOURISM AND THE ENVIRONMENT, ENVIRONMENT DEPARTMENT
EXECUTING AGENCY:	UNEP
SECTORS COVERED:	REFRIGERATION
ODS CONSUMPTION BY SECTORS COVERED:	93.6 ODP TONNES IN 1991
PROJECT DURATION:	ONE YEAR
PROJECT IMPACT:	THIS PROJECT WILL MAKE IT POSSIBLE TO REDUCE WASTE DUE TO SERVICE, MAINTENANCE AND REPAIR BY AT ABOUT 80%, ESPECIALLY IN COLD-STORAGE CHAMBERS.
REQUESTED MULTILATERAL FUND CONTRIBUTION:	US \$ 36 000

JUSTIFICATION

THIS PROJECT WILL MAKE IT POSSIBLE TO REDUCE VENTING DURING SERVICE, MAINTENANCE AND REPAIR BY SOME 80%, ESPECIALLY IN COLD-STORAGE CHAMBERS. VISITS TO THESE INSTALLATIONS WILL BE MADE BEFORE THE START OF THIS PROJECT TO CONFIRM THEIR NUMBER AND CONSUMPTION OF ODS. THE COST OF THE PROJECT IS US \$ 36 000.

THREE DEMONSTRATION AND REFRIGERATION-MAINTENANCE CENTERS WILL BE PROVIDED WITH MOBILE RECOVERY, RECYCLING AND SERVICING EQUIPMENT.

THESE CENTERS WILL BUY CFCS FROM OTHER MAINTENANCE WORKSHOPS FOR RECYCLING.

THE PROJECT COULD BE IMPLEMENTED AS EARLY AS 1994 AND WOULD ALLOW FOR ALMOST TOTAL CFC ELIMINATION IN SENEGAL BY THE YEAR 2000.

	<u>US DOLLARS</u>
THREE CENTERS FITTED OUT WITH RECOVERY AND RECYCLING EQUIPMENT. EACH CENTER WOULD BE EQUIPPED WITH THE FOLLOWING:	36 000
ONE MOBILE RECOVERY AND RECYCLING MACHINE	8 000 US \$
LEAK DETECTION AND CALIBRATION EQUIPMENT ETC.	<u>4 000</u>
SUBTOTAL PER WORKSHOP	12 000
TOTAL	36 000

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REPUBLIC OF SENEGAL

**MINISTRY OF TOURISM AND THE ENVIRONMENT
ENVIRONMENT DEPARTMENT**

**NATIONAL WORKING GROUP FOR
THE COUNTRY PROGRAMME**

PROJECTS

**REPUBLIC OF SENEGAL COUNTRY PROGRAMME
FOR THE IMPLEMENTATION OF
THE MONTREAL PROTOCOL**

SEPTEMBER 1993

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PROJECT SUMMARY TABLE

PROJECT NUMBER	PROJECT TITLE	COST IN US \$
1	CREATION OF AN OZONE FOCAL POINT	175 000
2	TRAINING AND UPGRADING FOR SERVICE, MAINTENANCE AND REPAIR TECHNICIANS	58 000
3	EXPANSION AND UPGRADING OF STATISTICS CUSTOMS NETWORK	26 000
4	NATIONAL INFORMATION AND AWARENESS CAMPAIGN	192 000
5	RECOVERY AND RECYCLING EQUIPMENT	36 000
TOTAL		487 000

PROJECT PROPOSAL: NUMBER 1

COUNTRY:	SENEGAL
PROJECT TITLE:	CREATION OF AN OZONE FOCAL POINT
NATIONAL COORDINATING BODIES:	THE OZONE FOCAL POINT UNDER THE SUPERVISION OF THE MINISTRY OF TOURISM AND THE ENVIRONMENT ENVIRONMENT DEPARTMENT
EXECUTING AGENCY:	UNEP
SECTORS COVERED:	ALL SECTORS
ODS CONSUMPTION BY SECTORS COVERED:	102.3 ODP TONNES IN 1991
PROJECT DURATION:	THREE YEARS
PROJECT IMPACT:	• MONITOR PHASE-OUT OF ODS ACTIVITIES IN ACCORDANCE WITH THE ACTION PLAN DESCRIBED IN THE COUNTRY PROGRAMME • IMPROVED CAPACITY OF STATE STRUCTURES RESPONSIBLE FOR ODS CONTROL AND USE • CONTRIBUTION BY THE COUNTRY TO THE PROTECTION OF THE OZONE LAYER
REQUESTED MULTILATERAL FUND CONTRIBUTION:	US \$ 175 000

INTRODUCTION

THE ACTION PLAN RELATED TO THE COUNTRY PROGRAMME WILL BE IMPLEMENTED IN CLOSE COOPERATION WITH INSTITUTIONAL BODIES (MINISTRIES AND OTHER INSTITUTIONS INVOLVED IN ODS PHASE-OUT). IT WILL ALSO BE NECESSARY TO CREATE SPECIALIZED BODIES TO PROVIDE FOR EXECUTION AND FOLLOW-UP OF PROGRAMME MEASURES. THE OZONE FOCAL POINT WILL BE ONE OF SUCH BODIES.

ORGANIZATION OF THE OZONE FOCAL POINT

THE OZONE FOCAL POINT COMES UNDER THE ENVIRONMENT DEPARTMENT OF THE MINISTRY OF TOURISM AND THE ENVIRONMENT.

THE OZONE FOCAL POINT, WHICH IS COMPOSED OF REPRESENTATIVES FROM GOVERNMENT, INDUSTRY AND OTHER RELEVANT INSTITUTIONS, WILL BE THE MAIN BODY FOR COORDINATION AND FOLLOW-UP ON THE ACTION PLAN DESCRIBED IN THE COUNTRY PROGRAMME. THE MEASURES IT WILL TAKE INCLUDE ADOPTION OF THE ACTION PLAN, STRATEGY, TRAINING, SENSITIZATION AND FINANCIAL MANAGEMENT.

OZONE FOCAL POINT TEAM

TECHNICAL-ADMINISTRATIVE AND FINANCIAL SUPPORT WILL BE PROVIDED BY AN OZONE FOCAL POINT SECRETARIAT, MADE UP OF A TEAM OF TWO PROFESSIONALS AND ONE SECRETARY.

ACTIVITIES AND SCOPE OF PROJECT

IF THE OZONE FOCAL POINT IS TO ATTAIN THE ABOVE OBJECTIVES, IT WILL HAVE TO UNDERTAKE SEVERAL ACTIVITIES, COMPRISING BUT NOT LIMITED TO THE FOLLOWING:

- TAKE PART IN SETTING TAX LEVELS AND PREPARING CRITERIA FOR BANS SO AS TO APPLY THE STRATEGY TO THE ACTION PLAN DESCRIBED IN THE COUNTRY PROGRAMME;
- AS THE COUNTRY PROGRAMME IS BEING IMPLEMENTED, EACH STAGE WILL INCLUDE AWARENESS MEASURES;
- SET UP A DATA BANK, INCLUDING INFORMATION ON ODS USE IN THE COUNTRY;
- MAKE AN ANNUAL REPORT, AS REQUIRED, TO THE MONTREAL PROTOCOL AND THE OZONE SECRETARIAT ON ODS CONSUMPTION IN THE COUNTRY;
- BE RESPONSIBLE FOR THE IMPLEMENTATION OF TRAINING PROGRAMMES AND FOLLOW-UP ON THEM;
- MONITOR AND CONTROL PROJECTS THAT ACCELERATE ODS PHASE-OUT;
- BE RESPONSIBLE FOR FUNDING OBTAINED FROM THE MULTILATERAL FUND.

PUBLIC AWARENESS

AS THE COUNTRY PROGRAMME IS BEING IMPLEMENTED, EACH STAGE WILL INCLUDE AWARENESS MEASURES CONSISTING OF:

- INFORMATION ON STEPS TAKEN, WITH REMINDERS REGARDING THE REGULATORY FRAMEWORK AND TARGET OBJECTIVES; THIS COURSE OF ACTION WILL BE UNDERTAKEN CONCRETELY WITH THE RELEVANT GOVERNMENTAL AND OTHER CONCERNED BODIES VIA THE MEDIA AND OTHER MEANS OF INFORMATION;
- ESTABLISHMENT OF A FOLLOW-UP SYSTEM FOR CONVERSION WITH RESPECT TO THE IMPLEMENTATION OF ACTION PLAN;
- AN INVENTORY AND ANALYSIS OF THE DIFFICULTIES ENCOUNTERED SO AS TO FIND SOLUTIONS AND INFORM THE PARTIES CONCERNED.

MARKET CONTROL

THE GOVERNMENT WILL SET UP AN APPROPRIATE TAXATION SYSTEM FOR THE TRANSITIONAL PERIOD AND WILL RECEIVE SUPPORT FROM THE MONTREAL PROTOCOL FINANCIAL MECHANISMS IN ORDER TO MINIMIZE THE COSTS REQUIRED BY THIS TECHNOLOGICAL TRANSFER.

THE FOLLOWING MEASURES WILL BE IMPLEMENTED:

- A BAN ON CFCS AS AEROSOL PROPELLANTS AND THE IMPLEMENTATION OF COMPULSORY IDENTIFICATION OF PRODUCTS THAT DO NOT CONTAIN ODS WITH THE "OZONE FRIENDLY" LOGO;
- TAXATION ON ODS AND ON EQUIPMENT CONTAINING THEM WHEN ALTERNATE TECHNOLOGIES WILL BECOME COMMERCIALY AVAILABLE;
- A BAN ON THE IMPORT OF USED OR REFURBISHED EQUIPMENT THAT OPERATES ON ODS OR RECYCLED SUBSTANCES;
- ESTABLISHMENT OF A RECOVERY INCENTIVE SYSTEM BY GRANTING OPERATING LICENSES.

MONITORING

THE OZONE FOCAL POINT WILL BE RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING AN OPERATIONAL SYSTEM FOR EFFECTIVELY MONITORING ODS PHASE-OUT IN ACCORDANCE WITH THE ACTION PLAN. THE MONITORING SYSTEM THAT HAS BEEN CONTEMPLATED WILL BE COMPRISED OF A NUMBER OF COMPONENTS, SUCH AS:

- GATHERING INFORMATION THAT WILL BECOME AVAILABLE FROM THE CUSTOMS DEPARTMENT IN RELATION TO THE IMPORT OF ODS AND ODS-CONTAINING PRODUCTS;
- REPORTING REGULARLY ON ODS CONSUMPTION (TYPES AND AMOUNTS), BROKEN DOWN BY USER SECTORS, AND ON PROGRESS IN THE IMPLEMENTATION OF SPECIFIC TRANSFORMATION PROCESSES AND OTHER PROJECTS IDENTIFIED IN THE ACTION PLAN;

- MAKING INDEPENDENT AND REGULAR INSPECTIONS AND ASSESSMENTS IN ORDER TO CONFIRM REPORTS;
- REVIEW AND ESTABLISH FINANCIAL AND TECHNICAL SUPPORT NEEDS FOR THOSE SECTORS CONCERNED BY THE ACTION PLAN.

PROJECT BUDGET

BUDGET TO BE PROVIDED BY THE GOVERNMENT OF THE REPUBLIC OF SENEGAL

THE BUDGET TO BE PROVIDED BY THE GOVERNMENT AMOUNTS TO US \$ 200 000. THIS THREE-YEAR BUDGET WILL COVER THE FOLLOWING COSTS:

- OFFICE SPACE, FURNITURE, BASIC EQUIPMENT, ETC.;
- VEHICLES, DRIVERS, GASOLINE, MAINTENANCE, ETC.;
- OTHER TRANSPORTATION COSTS;
- BASIC SALARIES FOR SUPPORT STAFF;
- HONORARIUMS AND EXPENSES FOR SPECIALIZED SENEGALESE CONSULTANTS.

BUDGET REQUESTED FROM THE MULTILATERAL FUND

THIS BUDGET, WHICH AMOUNTS TO US \$ 175 000, IS ALSO INTENDED TO COVER THREE YEARS.

BUDGET REQUESTED FROM THE MULTILATERAL FUND

1.	CAPITAL EXPENDITURE	YEAR 1	YEAR 2	YEAR 3	TOTAL
	OFFICE EQUIPMENT				
	PERSONAL COMPUTER WITH DISK DRIVE	3 500			
	MODEM	500			
	POWER STABILIZER	500			
	PRINTER AND SOFTWARE	3 500			
	PHOTOCOPIER	2 000			
	TYPEWRITER	500			
	FAX	1 000			
	SUBTOTAL	11 500			11 500
2.	RECURRING EXPENSES				
	PERSONNEL: INCENTIVES				
	MANAGERIAL STAFF	18 000	18 000	18 000	
	SUPPORT STAFF	6 000	6 000	6 000	
	SUBTOTAL	24 000	24 000	24 000	72 000
3.	OPERATING COSTS				
	PAPER, PRINTING ETC.	15 000	12 000	10 000	
	INTERNAL TRANSPORTATION	7 500	6 000	6 000	
	TELECOMMUNICATIONS	4 000	4 000	4 000	
	PUBLIC UTILITIES (ELECTRICITY, WATER, ETC.)	8 000	8 000	7 000	
	SERVICING FOR EQUIPMENT	—	2 500	2 500	
	SUBTOTAL	34 500	30 000	27 000	91 500
	GRAND TOTAL	70 000	54 000	51 000	175 000

PROJECT PROPOSAL: NUMBER 2

COUNTRY: SENEGAL

PROJECT TITLE: TRAINING AND UPGRADING FOR SERVICE, MAINTENANCE AND REPAIR TECHNICIANS

NATIONAL COORDINATING BODIES: THE OZONE FOCAL POINT UNDER THE MINISTRY OF TOURISM AND THE ENVIRONMENT

EXECUTING AGENCY: UNEP JOINTLY WITH UNIDO

SECTORS COVERED: REFRIGERATION

ODS CONSUMPTION BY SECTORS COVERED: 93.6 ODP TONNES IN 1991

PROJECT DURATION: THREE YEARS

PROJECT IMPACT:

- TO PROVIDE SUITABLE FOLLOW-UP AND REACH PLANNED OBJECTIVES ACCORDING TO SCHEDULE;
- TO TRAIN REFRIGERATION TECHNICIANS

REQUESTED MULTILATERAL FUND CONTRIBUTION: US \$ 58 000

JUSTIFICATION

IN ADDITION TO REDUCING DAMAGE TO THE OZONE LAYER, THE PROJECT WILL MAKE IT POSSIBLE, THROUGH ODS RECOVERY, TO SAVE SOME 85% OF CFCS USED IN SERVICE, MAINTENANCE AND REPAIR.

IN ORDER TO PROVIDE SUITABLE FOLLOW-UP AND REACH PLANNED OBJECTIVES ACCORDING TO SCHEDULE, PROFESSIONAL TRAINING FOR HANDS-ON SERVICE, MAINTENANCE AND REPAIR PERSONNEL IS ESSENTIAL.

ACCORDING TO ESTIMATES THERE ARE APPROXIMATELY 200 SERVICE, MAINTENANCE AND REPAIR SHOPS IN SENEGAL. 100 OF THESE ARE LOCATED IN THE DAKAR REGION. OF THESE 200, ONE-THIRD HAVE "PROFESSIONALS" WHO HAVE BEEN PREVIOUSLY TRAINED. THE REST HAVE RECEIVED A CERTAIN DEGREE OF TRAINING SO THAT THEY ARE CAPABLE OF CARRYING OUT MINOR SERVICE, MAINTENANCE AND REPAIR.

TWO PHASES OF TRAINING WILL BE SET UP. THE FIRST PHASE WILL BE FOR THE "PROFESSIONAL" TECHNICIANS AND WILL BE HELD FOR ONE WEEK IN DAKAR. MUCH OF THE TRAINING WILL COVER HANDS ON WORKSHOPS AND LECTURES WITH MUCH INFORMATION ON DESTRUCTION OF THE OZONE LAYER AND THE PROVISIONS OF THE MONTREAL PROTOCOL. ONE OF THE MAJOR OBJECTIVES IS TO TRAIN-THE-TRAINERS FOR PHASE TWO. IN THIS FIRST PHASE ONLY UNEP EXPERTS WILL PROVIDE INSTRUCTION.

FOLLOWING THE FIRST PHASE, THE REMAINING TWO-THIRDS WILL RECEIVE TRAINING FROM INSTRUCTORS RECRUITED FROM THE FIRST COURSE AND ASSISTED BY A UNEP EXPERT.

THE FOCAL POINT WILL ORGANIZE THESE SEMINARS.

BUDGET
PROFESSIONAL TRAINING IN 1993

FIRST PHASE OF TRAINING SESSIONS

THE FOLLOWING IS THE COST ESTIMATE FOR THE FIRST PHASE OF THE TRAINING SEMINARS.

THE TOTAL IS US \$ 26 000.

DESCRIPTION	US DOLLARS
SERVICES OF EXPERTS FOR TWO WEEKS	15 000
LOGISTICS	
MEETING ROOM	5 000
RENTAL OF EQUIPMENT FOR MEETING INCLUDING THE SERVICES OF A TECHNICIAN	1 000
INTERNAL TRANSPORTATION	2 000
PHOTOCOPIES AND TEACHING MATERIAL	3 000
TOTAL	26 000

SECOND PHASE OF TRAINING SESSIONS

THE FOLLOWING IS THE COST ESTIMATE FOR PHASE TWO OF THE SEMINARS. THESE SESSIONS WILL COVER THE TRAINING OF THE REMAINDER OF THE TECHNICIANS THAT WERE NOT TRAINED DURING THE FIRST PHASE. MUCH OF THE TRAINING WILL BE DONE BY TECHNICIANS TRAINED DURING THE FIRST PHASE SESSION.

THE TOTAL IS US \$ 32 000.

TRAINING OF OTHER GROUPS

DESCRIPTION	US DOLLARS
FOUR SESSIONS FOR 35 PEOPLE	32 000
TOTAL	32 000

TOTAL PROJECT COST

DESCRIPTION	US DOLLARS
PHASE ONE SESSIONS	26 000
PHASE TWO SESSIONS	32 000
TOTAL	58 000

PROJECT PROPOSAL: NUMBER 3

COUNTRY:	SENEGAL
PROJECT TITLE:	EXPANSION AND UPGRADING OF STATISTICS CUSTOMS NETWORK AND DEPARTMENT OF STATISTICS
NATIONAL COORDINATING BODIES:	THE OZONE FOCAL POINT UNDER THE MINISTRY OF TOURISM AND THE ENVIRONMENT, ENVIRONMENT DEPARTMENT
EXECUTING AGENCY:	UNEP
SECTORS COVERED:	ALL SECTORS
ODS CONSUMPTION BY SECTORS COVERED:	102.3 ODP TONNES IN 1991
PROJECT DURATION:	TWO YEARS
PROJECT IMPACT:	TO EXPAND AND UPGRADE THE STATISTICS CUSTOMS NETWORK AND THE DEPARTMENT OF STATISTICS (DEPARTMENT OF FORECASTS AND STATISTICS)
REQUESTED MULTILATERAL FUND CONTRIBUTION:	US \$ 26 000

PURPOSE

THIS PROJECT IS DESIGNED TO EXPAND AND UPGRADE THE STATISTICS CUSTOMS NETWORK AND THE DEPARTMENT OF STATISTICS (DEPARTMENT OF FORECASTS AND STATISTICS) IN CLOSE COOPERATION WITH THE SGS (SOCIÉTÉ GÉNÉRALE DE SURVEILLANCE). SGS IS NATIONALLY RESPONSIBLE FOR QUALITY CONTROLS ON ALL CONSUMER PRODUCTS.

JUSTIFICATION

IN RESPONSE TO THE RECOMMENDATIONS OF THE MONTREAL PROTOCOL COMMITTEE THAT STUDIED IMPROVEMENTS TO THE CUSTOMS DEPARTMENTS REGARDING THE REGISTRATION OF ODS UNDER THE BRUSSELS HARMONIZED SYSTEM SUBCATEGORIES, THE OBJECTIVES OF THIS PROJECT WILL BE:

- AVAILABILITY OF STATISTICS ON ALL ODS; PRODUCTS, APPLIANCES, MACHINES OR EQUIPMENT CONTAINING OR OPERATING WITH ODS;
- CONTROL OVER ALL IMPORTED ODS OR ODS-BASED PRODUCTS.

THIS PROJECT WILL FACILITATE MORE-EFFICIENT CONTROL OVER THE ODS CONSUMPTION AND WILL CONSTITUTE THE BASIS FOR A MONITORING NETWORK. THE PROJECT WILL REQUIRE NEW IMPORT-MANAGEMENT SOFTWARE. THEREFORE, AN EXPERT IN CUSTOMS SYSTEMS (WITH SPECIFIC KNOWLEDGE OF ODS) WILL BE NEEDED TO TRAIN ABOUT 20 PERSONS FOR FIVE DAYS. THEREAFTER, THE SERVICES OF TWO COMPUTER AND ODS-TECHNOLOGY EXPERTS MAY BE REQUIRED FOR ONE MONTH.

BUDGET
TRAINING FOR CUSTOMS OFFICERS IN 1993

THE FOLLOWING ARE THE COST ESTIMATE FOR THIS PROJECT.

DESCRIPTION	US DOLLARS
-SERVICES OF AN EXPERT ON THE BRUSSELS HARMONIZED SYSTEM	12 - 8 000
LOGISTICS -MEETING ROOM -RENTAL OF EQUIPMENT FOR MEETING INCLUDING THE SERVICES OF A TECHNICIAN -INTERNAL TRANSPORTATION -PHOTOCOPIES AND TEACHING MATERIAL	17 000
TOTAL	26 000

PROJECT PROPOSAL: NUMBER 4

COUNTRY:	SENEGAL
PROJECT TITLE:	NATIONAL INFORMATION AND AWARENESS CAMPAIGN
NATIONAL COORDINATING BODIES:	THE OZONE FOCAL POINT UNDER THE MINISTRY OF TOURISM AND THE ENVIRONMENT, ENVIRONMENT DEPARTMENT
EXECUTING AGENCY:	UNEP
SECTORS COVERED:	ALL SECTORS
ODS CONSUMPTION BY SECTORS COVERED:	102.3 ODP TONNES IN 1991
PROJECT DURATION:	TWO YEARS
PROJECT IMPACT:	ORGANIZATION OF MEDIA CAMPAIGNS AND THE PUBLICATION OF BROCHURES TO THE PUBLIC AND TO BE WIDELY DISTRIBUTED IN SCHOOLS
REQUESTED MULTILATERAL FUND CONTRIBUTION:	US \$ 192 000

PURPOSE

THIS PROJECT INCLUDES THE ORGANIZATION OF MEDIA CAMPAIGNS AND THE PUBLICATION OF BROCHURES TO BE WIDELY DISTRIBUTED TO THE PUBLIC AND IN SCHOOLS.

THOUGH ONLY A SMALL PROPORTION OF CONSUMERS IS AWARE OF OZONE-LAYER DESTRUCTION, THE CONSUMERS MUST PLAY A ROLE IN PHASING OUT OZONE-DEPLETING SUBSTANCES. PUBLIC AWARENESS AND EDUCATION IN THE PREVENTION OF DAMAGE TO REFRIGERATORS WOULD SUBSTANTIALLY DECREASE THE NEED FOR REPAIR AND CONSEQUENTLY SUBSTANTIALLY REDUCE THE CONSUMPTION OF ODS. THEREFORE, PUBLIC PARTICIPATION IS AN IMPORTANT ELEMENT IN ODS PHASE OUT. THIS CAN BE MATERIALIZED THROUGH PUBLIC SENSITIZATION, INFORMATION AND EDUCATION. THE POPULATION WOULD THEN FEEL ITS OBLIGATION AND HAVE ITS OWN OVERRIDING INTEREST THUS BECOMING THE MAIN ACTOR IF ANY DEVELOPMENT OR PROTECTION PROGRAMME IS TO SUCCEED.

PROJECT BUDGET

	<u>1993</u>	<u>1994</u>	<u>TOTAL</u>
MEDIA: RADIO, TELEVISION, NEWSPAPERS	48 000	48 000	96 000
PUBLICATION OF INFORMATION BROCHURE	48 000	48 000	96 000
TOTAL IN US DOLLARS	96 000	96 000	192 000

PROJECT PROPOSAL: NUMBER 5

COUNTRY:	SENEGAL
PROJECT TITLE:	RECOVERY AND RECYCLING EQUIPMENT
NATIONAL COORDINATING BODIES:	THE OZONE FOCAL POINT UNDER THE AUTHORITY OF THE MINISTRY OF TOURISM AND THE ENVIRONMENT, ENVIRONMENT DEPARTMENT
EXECUTING AGENCY:	UNEP
SECTORS COVERED:	REFRIGERATION
ODS CONSUMPTION BY SECTORS COVERED:	93.6 ODP TONNES IN 1991
PROJECT DURATION:	ONE YEAR
PROJECT IMPACT:	THIS PROJECT WILL MAKE IT POSSIBLE TO REDUCE WASTAGE DUE TO SERVICE, MAINTENANCE AND REPAIR BY AT ABOUT 80%, ESPECIALLY IN COLD- STORAGE CHAMBERS.
REQUESTED MULTILATERAL FUND CONTRIBUTION:	US \$ 36 000

JUSTIFICATION

THIS PROJECT WILL MAKE IT POSSIBLE TO REDUCE VENTING DURING SERVICE, MAINTENANCE AND REPAIR BY SOME 80%, ESPECIALLY IN COLD-STORAGE CHAMBERS. VISITS TO THESE INSTALLATIONS WILL BE MADE BEFORE THE START OF THIS PROJECT TO CONFIRM THEIR NUMBER AND CONSUMPTION OF ODS. THE COST OF THE PROJECT IS **US \$ 36 000**.

THREE DEMONSTRATION AND REFRIGERATION-MAINTENANCE CENTERS WILL BE PROVIDED WITH MOBILE RECOVERY, RECYCLING AND SERVICING EQUIPMENT.

THESE CENTERS WILL BUY CFCS FROM OTHER MAINTENANCE WORKSHOPS FOR RECYCLING.

THE PROJECT COULD BE IMPLEMENTED AS EARLY AS 1994 AND WOULD ALLOW FOR ALMOST TOTAL CFC ELIMINATION IN SENEGAL BY THE YEAR 2000.

		US DOLLARS
THREE CENTERS FITTED OUT WITH RECOVERY AND RECYCLING EQUIPMENT. EACH CENTER WOULD BE EQUIPPED WITH THE FOLLOWING:		36 000
ONE MOBILE RECOVERY AND RECYCLING MACHINE	8 000 US \$	
LEAK DETECTION AND CALIBRATION EQUIPMENT ETC.	4 000	
SUBTOTAL PER WORKSHOP	12 000	
TOTAL		36 000