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

Twelfth Meeting
Montreal, 28-30 March 1994

COUNTRY PROGRAMME: CÔTE D'IVOIRE

This document consists of:

- (a) Country Programme Evaluation Sheet (prepared by the Fund Secretariat)
- (b) Transmittal Letter from the Government of Côte d'Ivoire
- (c) Country Programme Cover Sheet
- (d) Country Programme

COTE D'IVOIRE COUNTRY PROGRAMME EVALUATION SHEET

National Implementing Agency: Ozone Secretariat, Ministry of Environment, Construction and Urban Development

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry Force
Vienna Convention (1985)		05/Apr/93	04/Jul/93
Montreal Protocol (1987)		05/Apr/93	04/Jul/93
London Amendment (1990)		05/Apr/93	04/Jul/93
Copenhagen Amendment (1992)			

Production of controlled substances: 0 metric tonnes (mt)

Consumption of controlled substances (1991): 239.2 metric tonnes
247.4 weighted tonnes (ODP)

Substance (ton)	CFC						Halon			Solvents			M-Br
	11	12	113	114	115	Total	1211	1301	Total	CTC	MCF	Total	
ODS	20.0	210.0		1.5	6.5	238.0		1.2	1.2				
ODP	20.0	210.0		1.5	3.9	235.4		12.0	12.0				

Source: Country Programme (1994)

Distribution of ODP by substance:

CFC: 95.1% Halon: 4.9% CTC, MCF:

Distribution of ODP by sector:

Sector:	Aerosol	Foam	Halon	Other	Refrig.	Solvent
Consumption (tonnes):	89.5	4.5	11.6		125.4	
Percent of total:	36.2%	1.8%	4.9%		50.7%	

Note: 16 tonnes of CFC are stored

Country Programme

Duration of country programme: 3 years (1993-1995)

ODS phase-out target:

Complete phase-out by 2007

Phase-out priority area:

Aerosol and refrigeration sectors

Cost of activities in country programme: \$410,869

Strategy:

The proposed action plan aims at eliminating consumption of ODS by 2000. The following measures are proposed: establishment of a legal framework to control importation and use of ODS; training, awareness, and information dissemination to importers, users of refrigerators and air-conditioned vehicles, repairers of refrigeration and air-conditioning equipment; incentive to use substitutes for ODS; assistance for acquiring alternative technologies. The incremental cost to the Ivory Coast economy as a result of the requirements of the Montreal Protocol will be \$4.5 million (1992).

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

COMMENTS

1. The Country Programme outlines industrial measures to be taken to facilitate implementation of an action plan for a gradual phase out of ODS in the country. A National Ozone Secretariat would be created within the Ministry of Environment, Construction and Urban Development. This organization could stimulate and direct actions by industry, which has responded positively to the requirements of the Montreal Protocol, for a faster phase-out. ODS-using companies depend on their parent companies, which are generally European, for their supplies and are affected by their ODS phase-out programme. This provides an opportunity which could be exploited for a faster and less costly phase-out.

2. In preparing activities and projects for phasing out ODS, the Government and the Implementing Agencies should explore and make use of the opportunities offered by the participation of the subsidiaries of foreign companies for a faster and cost-effective phase-out.

Projects in the Country Programme Submitted for Approval of the Executive Committee

3. The following projects for which approval and funding are requested are annexed to the Country Programme:

- (a) (National) Ozone Secretariat (Institutional Strengthening) (US \$160,854)
- (b) Training of technicians in the various sectors using ODSs (US \$53,571)
- (c) Training of Customs Officers (US \$35,714)
- (d) Awareness and information of those working in refrigeration (US \$160,730)

4. The project proposals submitted for funding were considered against the following background:

- (a) The dominant role in the ODS import business of subsidiaries of multinational ODS-producing or ODS-consuming companies. Two companies (SIVOA and Hoechst) accounted for over 90% of the import and subsequently distribution of CFC-11 and CFC-12 the main ODS used in Côte d'Ivoire. Thus the complexity in the tracking of ODS imports and distribution is significantly reduced.
- (b) The scope of ODS use in the country in general and in industry in particular, namely:
 - (i) One domestic refrigerator assembly plant which depends on imported compressors

- (ii) Two manufacturers of air conditioners, one of which also manufactures industrial refrigeration equipment
- (iii) One main aerosol producer, a subsidiary of a multinational company, accounting for almost the total consumption of CFC-12 in this sector.
- (iv) The significance of the refrigeration servicing industry, two-thirds of which is concentrated in the capital city.
- (v) Most of the companies using ODS depend on their parent companies, generally European companies, for their supplies and are directly affected by their phase-out programmes.
- (vi) The most critical target for the activities of the Ozone Secretariat would be refrigeration servicing technicians, particularly those not affiliated to established large companies.

Institutional Strengthening

5. On the basis of the above considerations, the potential needs of the proposed Ozone Secretariat was assessed and the amount of US \$154,830 recommended. This is made up of:

Equipment	US \$11,000
Staff	57,321
Operating costs (including public awareness)	86,508

Training of technicians in the various sectors using ODS

6. The activity is to provide training for technicians in the refrigeration sector only. The development of the training programme did not seem to have taken the highly significant participation of the large companies into account. The programme staggered over a long period of 3 years would not be cost effective given the number of technicians involved.

Training of Customs Officers

7. As an activity to strengthen the Customs Department, requests for training of customs offices have been considered on a case by case basis, and recommended in cases where it is likely to lead to avoidance of unintended emission of ODS. However, considering the pattern of import, distribution and use of ODS in the country, the project could not be recommended for funding.

Awareness and information of those working in refrigeration

8. The entire budget would be spent on the media (radio, television, press) (US \$87,150) and publication of information brochure (US \$75,580). Taking account of the background provided in paragraph 4 above, the fact that facilities and funds are provided under institutional strengthening for information dissemination and planned training programme for refrigeration mechanics, the project was considered ineligible for funding.

RECOMMENDATIONS

The Fund Secretariat recommends as follows:

1. To approve the Country Programme of Côte d'Ivoire. Approval of the Country Programme does not denote approval of the projects identified therein or their funding levels.
2. To approve the amount of US \$154,830 and US \$20,130 support costs for the establishment of the Ozone Secretariat of Côte d'Ivoire to be included in the UNEP 1994 Work Programme.
3. To request UNEP to cooperate with the Government of Côte d'Ivoire to redesign the project "Training of technicians in the various sectors using ODS" for resubmission to the Executive Committee.
4. To decline approval of funding for the projects:
 - (a) Training of Customs Officers
 - (b) Awareness and information of those working in refrigeration

URGENT

Abidjan, le 1 FEV. 1994

V/Réf: 0100

N/Réf: MET/DE/SD-RPM/NN/dc

OBJET: Programme de pays

A
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Monsieur,

J'ai l'honneur de vous transmettre pour approbation et financement le programme de pays pour la Côte d'Ivoire.

Le Gouvernement Ivoirien a ratifié le protocole de Montréal le 4 juillet 1993. Sa consommation étant inférieure à 0,3 Kg/habitant/an, il est donc visé par les dispositions du paragraphe 1 de l'article 5 du Protocole de Montréal.

Le Programme de Pays, réalisé sous la direction du Ministère de l'Environnement et du Tourisme, 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 qui appauvrissent la couche d'ozone d'ici l'an 2000 et ce en conformité avec les dispositions prévues par le protocole de Montréal.

Le gouvernement a approuvé l'ensemble des actions contenues dans le 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.

Nous espérons que lors de sa 12^{ème} réunion, le comité exécutif du fonds multilatéral approuvera le présent programme de pays ainsi que les projets préparés suivant la procédure requise par le comité exécutif du fonds multilatéral.

Ces projets, dont la présentation est sommaire avec des coûts indicatifs, sont les suivants :

- 1°/ Secrétariat de l'ozone de la Côte d'Ivoire d'un montant de 160,854 \$US.
- 2°/ Formation de Techniciens dans les différents secteurs utilisant les SAO d'un montant de 53,571 US\$
- 3°/ Formation des douaniers d'un montant de 35,714 US\$
- 4°/ Sensibilisation et information du Public de l'Etat d'un montant de 160,730 US\$.

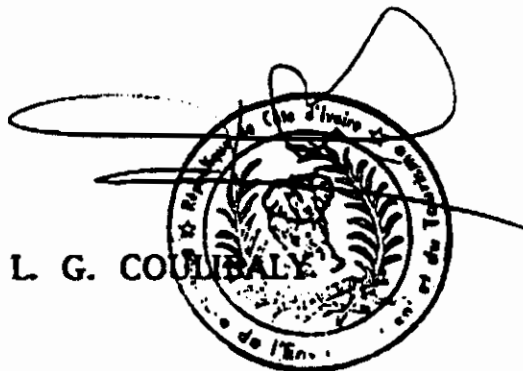
Il va sans dire que ces projets constituent une première série que la commission nationale "OZONE" a déjà identifiée. Ils nécessiteront une expertise pour chacun d'entre eux afin d'en préciser les aspects techniques et financiers.

D'autres projets sont en cours d'identification pour une présentation ultérieure au comité exécutif du fonds multilatéral.

Nous sollicitons également du comité exécutif le financement du projet de renforcement institutionnel à travers la création d'un "BUREAU OZONE" pour un montant total de 160 854 dollars U.S..

Veuillez agréer, Cher Monsieur, l'expression de mes salutations distinguées.

L. G. COUMBALE



COUNTRY PROGRAMME COVER SHEET

Country : Côte d'Ivoire

Lead National Agency : Côte d'Ivoire Ozone Secreatriat

Participating Implementing Agencies : UNEP

1. Phase-out schedule

susbstance	Current consumption (1991) (ton x ODP)	Planned cumulative consumption until phase-out (ton x ODP)		Planned year of phase-out
		Article 5 schedule	Accelerated schedule	
CFC 11	20			2000
CFC 12	210			2000
CFC 113	0.03	1377	3508	2000
CFC 114	1.5			2000
CFC 115	3.9			2000
Halon 1301	11.6	31.6	31.6	1995
Total	247	1408.6	3539.6	

2. Government actions plan :

Projects and elements	Brief description	Commencement	Use Sector
Government actions			
Regulation	Adoption of legislation to control the consumption of ODS and to encourage the introduction of substituants	1994	All
Project	Institutional strengthening	1994	All
Training	Training of technicians working in various sectors using ODSs	1994	Refrigeration and other sectors
	Training of Customs Officers	1994	All
	Awareness and information	1994	Refrigeration

3. Project Summary Table

Project no.	Title	Intended Effect	Sector	Estimated Cost (US \$)			
				1994	1995	1996	Total
1.	Institutional Strengthening/Ozone Secretariat	Co-ordination, control, technical support, monitor	All	67,213	47,356	46,285	160,854
2.	Training on Refrigeration and other sectors	Training	All	26,785	13,393	13,393	53,571
3.	Training of Customs Officers	Training	Aerosols	35,714			35,714
4.	Awareness and information	Awareness	Refrigeration	89,290	35,720	35,720	160,730
Total Cost							410,869

**MINISTRY OF ENVIRONMENT,
CONSTRUCTION AND URBAN DEVELOPMENT**

REPUBLIQUE DE CÔTE D'IVOIRE
Union - Discipline - Travail

DIRECTORATE OF ENVIRONMENT

**SUB-DIRECTORATE ENVIRONMENTAL LEGISLATION
AND PROTECTION**

**COUNTRY PROGRAMME
PHASING OUT THE OZONE
DEPLETING SUBSTANCES
IN CÔTE D'IVOIRE**

JANUARY - 1994

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ABBREVIATIONS

CDI	Compagnie de Développement Industriel
CIE	Compagnie Ivoirienne d'Électricité (Côte d'Ivoire electricity utility)
CNE	Conseil National de l'Environnement
COGIM	Compagnie Générale Ivoirienne de Maintenance
IPL	Ivoirienne de Peinture et Laques
NGO	Non-Governmental Organizations
ODP	Ozone-Depleting Potential
PDCI-RDA	Parti Démocratique de Côte d'Ivoire Section du Rassemblement Démocratique Africain
UNEP	United Nations Environment Programme
SAEC	Société Abidjanaise d'Expansion Chimique
ODS	Ozone-Depleting Substances
SIIC	Service de l'Inspection des Installations Classées
SIVOA	Société Ivoirienne d'Oxygène et d'Acétylène
SIVOCLIM	Société Ivoirienne de Climatisation

EXECUTIVE SUMMARY

BACKGROUND

Like other countries, Côte d'Ivoire is actively participating in operations aimed at preventing the environment, particularly with respect to the ozone layer.

Consequently, since July 4th, 1993 Côte d'Ivoire has been a member of the Vienna Convention on protection of the ozone layer and the Montreal Protocol concerning ODS.

Because Côte d'Ivoire is considered as article 5, paragraph 1 Country of the Montreal Protocol (its per capita consumption was 0.019 kg in 1991), the country staunchly committed itself to drawing up a national programme aimed at eliminating the use of ozone-depleting substances.

The country programme was drawn up by a national team consisting of professionals under the auspices of the Ministry of Environment, Construction, and Urban Development, acting through its Directorate for the Environment.

This team had the financial assistance of the United Nations Environment Programme and the Finnish Government (FINNIDA), and the technical support of a UNEP consultant who visited Côte d'Ivoire on three occasions.

CURRENT SITUATION

The ODS consumption of Côte d'Ivoire was 247 tonnes ODP in 1991. Since Côte d'Ivoire has a population of about 13 million, its per capita consumption was 0.019kg in 1991.

Côte d'Ivoire is not an ODS producer. The ODSs consumed in Côte d'Ivoire are all imported. A small proportion of imports are re-exported to neighbouring countries. It should also be noted that some ODSs for inland countries transit through Côte d'Ivoire. Since these ODSs do not go through the hands of Côte d'Ivoire importers, they are not accounted for here.

Based on the survey, the only substances consumed in Côte d'Ivoire are CFC-11, CFC-12, CFC-113, CFC-114, CFC-115 and Halon 1301.

Two firms, SIVOA and Hoechst, both subsidiaries of multinational companies (Air Liquide France and Hoechst Germany) are the biggest CFC importers in Côte d'Ivoire.

At the institutional level, the future Ozone Secretariat which will operate under the Ministry of Environment, Construction, and Urban Development, will co-ordinate and monitor the country programme.

Prior to implementation of the country programme, it can be stated that the biggest CFC and Halon importers have, under the impetus of their parent companies, embarked on a systematic policy for abandoning certain substances (CFC-113 and 114 and Halon 1301) and reducing others.

Côte d'Ivoire is paying close attention to the terms of the Montreal Protocol concerning the elimination of ODSs. That is why several measures have been undertaken within the country with a view to rapid elimination of ODSs.

IMPLEMENTING PHASE-OUT

Côte d'Ivoire Government's strategy should enable all ODSs to be eliminated by the year 2000.

This strategy comprises the following measures:

- \ drawing up of a legal framework to control the importation and use of ODSs.
- \ training, awareness, and information operations aimed at:
 - \ importers,
 - \ users of refrigerators and air-conditioned vehicles,
 - \ repairers of refrigeration and air-conditioning equipment.
 - \ incentive to use substitutes for ODS
 - \ assistance for acquiring alternative technologies.

The action plan will cost USD410,869.

According to the relevant data drawn up by the General Directorate of Major Works (Direction Générale des Grands Travaux), the incremental cost for Côte d'Ivoire economy for early retirement of refrigerators and vehicles using CFC12 will amount to USD40.5 million in constant 1992 currency.

The incremental cost to economy of Côte d'Ivoire as a result of the requirements of the Montreal Protocol will be USD4.5 million (1992).

The country programme that Côte d'Ivoire is submitting to the Executive Committee of the Multilateral Fund is vital for the Government's national policy for elimination of ODSs. For its action plan to succeed, the financial support of the Multilateral Fund is required. This financial assistance amounts to approximately to US \$ 410,869.

ACTION PLAN

The principal actions envisaged are as follows:

- Creation of a Côte d'Ivoire Ozone Secretariat within the institutional framework, under the supervision of the Direction of Environment in Ministry of Environment, Construction, and Urban Development. It will co-ordinate and monitor the activities called for by the Country Programme.

- Periodic appraisal of the actions undertaken to eliminate ODSs.

- Information and awareness campaigns aimed at importers, users, and repairers of refrigeration equipment.
- Training of customs officers to enable better recognition of the controlled substances.
- Other related action will be undertaken, particularly with a view to recovery and recycling.

PROJECTS

A summary of the projects contained in this programme is given hereafter. The projects are presented in the order of priority given to them by the Government of Côte d'Ivoire. Details of the projects are appended hereto.

Summary of Projects

Order of priority	Years	Project	Sector	Expected results	Cost in US \$
1	1994-1996	Côte d'Ivoire Ozone Secretariat (Institutional Strengthening)	All	Co-ordination and monitoring of all activities	160,854
2	1994-1996	Training of refrigeration technicians	Refrigeration	Training of technicians on alternative technologies	53,571
3	1994	Training of customs officers	C u s t o m s Department	Introduction of an inspection system	35,714
4	1994-1996	Public awareness	Industrial, public	Awareness and responsibility of those involved in the refrigeration cycle. Reduction of CFC discharge into the atmosphere. Power savings	160,730
Total					410,869

1.0 INTRODUCTION

PURPOSE

1.1 The preparation of this document has made it possible to draw up an inventory of ODSs currently used in Côte d'Ivoire, of trends in consumption, and the actions to be taken in the period 1994-2000. These actions represent the process for controlling and monitoring the consumption and elimination of these substances well before 2010. A study conducted by Côte d'Ivoire ODS importers provided the basis for forecasts of ODS consumption up to the year 2010.

1.2 The request for funding of projects (action plans) contained in the country programme should be made to the Multilateral Fund of the Montreal Protocol.

1.3 This document describes the institutional framework within Côte d'Ivoire, and outlines the orientations that will make it possible to check that the action plan is being correctly applied and that it is indeed contributing to a reduction in the consumption of ODSs in accordance with the country programme.

1.4 One of the concerns of the Government of Côte d'Ivoire is protection of the ozone layer, which is the subject of two international conventions: the Vienna Convention on protection of the ozone layer of March 22nd, 1985, and the Montreal Protocol for ODSs of September 16th, 1987.

1.5 Côte d'Ivoire, which is exclusively a consumer and not a producer of ODSs, and which therefore participates in their destruction, has decided to be a member of both conventions. These decisions were made public by decrees No. 92-854 and No. 92-856 by the Council of Ministers on November 30th, 1992.

1.6 However, Côte d'Ivoire became a member of the Montreal Protocol only on July 4th, 1993. On that date it formally committed itself to fulfilling its duties to the utmost. As a result of this membership, and in accordance with the terms of the Montreal Protocol, particularly article 5 Paragraph 1, the Government of Côte d'Ivoire, through the preparation of a Country Programme, is committed to scheduling the phase out of those controlled substances listed in Annex A that are consumed in Côte d'Ivoire, i.e. CFC-11, CFC-12, CFC-113, CFC-114, CFC-115, and Halon 1301 in 1991.

Base elements

1.7 According to the Montreal Protocol, a country's consumption of substances is obtained by adding production and imports minus exports.

1.8 For Côte d'Ivoire, since it is not a producer of these substances, consumption is determined by calculating the difference between imports and exports.

1.9 On this basis, Côte d'Ivoire consumption of Ozone-Depleting Substances (ODS), measured as the Ozone-Depleting Potential (ODP), is estimated at 247 tonnes ODP in 1991.

1.10 Since Côte d'Ivoire has a population of 13 million, the per capita consumption is around 0.019 kg for 1991.

1.11 In any case, Côte d'Ivoire is one of the developing countries considered as article 5 Paragraph 1 of the Montreal Protocol. This means the country is entitled to technical support and financial assistance from the Multilateral Fund in order to draw up and implement its "Country Programme".

1.12 The Country Programme for Côte d'Ivoire was drawn up by a national team set up under the terms of the Montreal Protocol and co-ordinated by the Directorate of Environment, Ministry of Environment, Construction, and Urban Development.

1.13 The national team consisted of representatives from both public- and private-sectors concerned by matters relating to the ozone layer or the use of ozone-depleting substances, as well as an NGO. These bodies include the Subdirectorate of Environmental Legislation and Protection (Sous-Direction de la Réglementation et de la Protection des Milieux) the Classified Facility Inspection Service (Service de l'Inspection des Installations Classées), the Côte d'Ivoire Pollution Prevention Centre (Centre Ivoirien antipollution), ODS importers (SIVOA, Hoechst), Non-Governmental Organizations, and users.

1.14 The Côte d'Ivoire Country Programme approved by the Ministry of Environment, Construction, and Urban Development and adopted by the Council of Ministers.

1.15 The governmental body in charge of implementing the Country Programme is the Ministry of Environment, Construction, and Urban Development.

1.16 The Country Programme adheres to the general policy defined by Côte d'Ivoire for development during the period 1991-1995 (reduction of industrial pollution sources and risks, development of education and public awareness, creation of a coherent framework for protection of the natural environment, etc.).

TABLE 1.1
ECONOMIC INDICATORS FOR CÔTE D'IVOIRE

<u>YEAR</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>2000</u>
<u>POPULATION</u> <u>(MILLION)</u>			<u>12.978</u>	<u>13.484</u>	<u>14.01</u>	<u>18.313</u>
<u>AVERAGE GROWTH</u>				<u>3.9 %</u>		
<u>MALE POPULATION</u> <u>(MILLION)</u>				<u>6.476</u>		
<u>MALE POPULATION</u> <u>LESS THAN 20 YEARS</u> <u>OLD</u>				<u>72.7 %</u>		
<u>MALE POPULATION</u> <u>LESS THAN 20 YEARS</u> <u>OLD</u>				<u>4.708</u>		
<u>URBAN POPULATION</u>				<u>39 %</u>		
<u>EXCHANGE RATE</u>				<u>XOF280</u> (Feb 1992)		
<u>GNP (MILLION USD)</u>	<u>9 305</u>	<u>9 342</u>	<u>9 380</u>			
<u>GNP PER CAPITA IN</u> <u>US DOLLARS (USD)</u>			<u>723</u>			
<u>GROWTH IN GNP PER</u> <u>CAPITA IN US</u> <u>DOLLARS</u>			<u>0.4 %</u>			

Source: Côte d'Ivoire economic adjustment plan (1990 - 1995)

TABLE 1.2
CÔTE D'IVOIRE NATIONAL POWER PLAN (OCTOBER 1991)

<u>Year</u>	<u>1986</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2010</u>
<u>Consumption</u> <u>(GWh)</u>					
Air conditioning	110.2	131.2	163.0	214.0	404.0
Refrigeration	104.6	127.9	160.9	208.6	344.0

Source: General Directorate for Major Works (DCGTX) - Côte d'Ivoire

Assistance received

1.17 The national team has received assistance from a variety of sources in drawing up the Country Programme for Côte d'Ivoire.

1.18 At international level, after signature of the letter of agreement of October 26th 1992 by the Minister of Environment, Construction, and Urban Development, on behalf of the Government of Côte d'Ivoire, and the Director of the Industry and Environment Activity Centre of the United Nations Environment Programme (CAP/UNEP IE/PAC), the national team received financial assistance from CAP/UNEP IE/PAC and FINNIDA. In addition, a consultant was sent to Côte d'Ivoire on three occasions.

1.19 Very thorough technical information was also supplied by the people in charge of the OzonAction Programme of CAP/UNEP IE/PAC. Similarly, the co-ordinator of the National Programme was able to take part in a training and information workshop on ODSs in Nairobi, Kenya, in December 1992.

1.20 At the national level, the national team was aided by several ministerial departments, particularly the Prime Minister's Under-Secretary in charge of the Economy, Finance, and the Plan, through the General Directorate for Customs, the Ministry of Foreign Affairs, the Ministry of Trade and Industry, and the Ministry of Higher Education and Scientific Research.

1.21 Refrigeration associations, Non-Governmental Organizations, and above all, ODS-importing industrial concerns (SIVOA and Hoechst) provided the national team with the most valuable assistance.

2.0 CURRENT SITUATION

Current and forecast ODS consumption

2.1 The Republic of Côte d'Ivoire, which has been party to the Montreal Protocol since July 4th, 1993, produces no ozone-depleting substances. It obtains its supplies of these substances from outside the country, particularly from two large European producers: Air Liquide of France, via SIVOA, its leading subsidiary on the national market; and Hoechst, a German multinational, via its subsidiary Hoechst Côte d'Ivoire, which ranks second on the national market.

2.2 A small percentage of the total volume of ODSs used in Côte d'Ivoire is imported by the informal sector which consists of a large number of small private-sector firms.

2.3 In addition, it should be stated that a certain quantity of the ODS Côte d'Ivoire imports is exported to neighbouring countries, especially Burkina Faso. It is difficult to assess the quantities involved. The present consumption of Côte d'Ivoire is therefore the difference between its imports and exports.

2.4 The following tables are an approach to estimating current consumption of ODSs. They give global figures based on:

- \ data gathered from the General Directorate of Customs.
- \ A survey conducted by CFC distributors, those involved in refrigeration of foodstuffs (hotels, agro-foodstuffs industries), manufacturers (foams, aerosols, solvents, paint, air conditioning), repairers of refrigeration equipment.
- \ data gathered from users of motor vehicles, railways, shipping, and domestic and industrial conservation.

TABLE 2.1 : ODS CONSUMPTION
TONNES ODP IN1991

Substance	CONSUMPTION IN TONNES	OZONE DEPLETION POTENTIAL	CONSUMPTION IN TONNES ODP
<u>Group 1 Annex A</u>			
CFC-11	20	1.0	20
CFC-12	210	1.0	210
CFC-113	0.0375	0.8	0.03
CFC-114	1.5	1.0	1.5
CFC-115	6.5	0.6	3.9
Sub-total	238		235.4
<u>Group 2 Annex A</u>			
Halon 1211	-	3.0	-
Halon 1301	1.16	10.0	11.6
Halon 2402	-	6.0	-
Sub-total	1.16		11.6
TOTAL	239.16		247

TABLE 2.2 :CONSUMPTION BY SECTOR IN TONNES ODP IN 1991

Sector/Use	Substances	Sector	Consumption Tonnes ODP
Refrigeration	CFC-12	Domestic	52.4
	CFC-115	Industrial and commercial refrigeration	3.9
Air conditioning	CFC-11	Central - Commercial - Mobile	15.5
	CFC-12		53.7
Foams	CFC-11	Flexible foams	4.5
Aerosols	CFC-12	Cosmetics	88
	CFC-114	Cosmetics	1.5
Solvents	CFC-11	Paints and cleaning - Electronics	0.04
Others	CFC-12	Storage	16.00
Fire fighting	Halon 1301	Refills	11.6
TOTAL IN ODP			247

2.5 It should be noted that some decisions taken have had an immediate effect on the ODS consumption in Côte d'Ivoire. These include;

- \ CFC-11 is no longer to be used in the production of flexible foams. The production of rigid foams will not involve significant consumption.
- \ The biggest consumer of CFC-12 for "cosmetics" sprays, the firm A.J. SEWARD of the UNILEVER group, founded in 1980, has converted its facility, since January 1st, 1993 to CO₂. It should be noted that the company's consumption of CFC-12 from creation to 1991 amounted to 88 tonnes ODP. In 1992 consumption dropped to 45 tonnes.
- \ CFC-113 is no longer used to clean electronic circuit boards. Consequently, Hoechst Côte d'Ivoire has stopped importing the product. The only users of CFC-113 are the firms SAEC and IPL. They consumed 0.04 tonnes in 1991.
- \ Halon 1301 for use in fire-fighting applications was removed from the Hoechst range in October 1992.

Industry Structure

2.6 There is no ODS production in Côte d'Ivoire. Consequently, all the ODSs consumed are imported.

Importers and Distributors

2.7 Two companies share practically all the ODS market in Côte d'Ivoire. They are SIVOA and Hoechst. Their imports of each substance are shown below.

Table 2.3 : Controlled Substances Imported by SIVOA and Hoechst in 1991 (tonnes).

Substances	SIVOA	HOECHST
CFC-11	5.4	13
CFC-12	119	85
CFC-113	0	0
CFC-114	0	1.5
CFC-115	0	1.2
Halon 1301	0	0
TOTAL IN TONNES ODP	124.4	100.7

2.8 There are some smaller importers apart from these two big importers. POLYCHIMIE of the ATOCHEM group imports 1 tonne of CFC-11 and 6 tonnes of CFC-12, and INTELEC imports 1.16 tonnes de Halon 1301 from SICLI of France for security purposes. Some factories import directly, without going through the importers mentioned above. The quantities involved are small.

USERS

2.9 Many companies use ODSs. The largest are mainly those in the refrigeration sector, servicing and repair (refill) workshops, refrigerator and freezer assembly plants, and plants manufacturing air conditioners for homes and offices.

2.10 Such companies in Côte d'Ivoire include:

Compagnie de Développement Industriel (CDI)

The assembly capacity of this company is 10,000 units per year, but only about 4,000 refrigerators are assembled each year (1991). It alone caters for 100% of the local assembly market, which represents about 20% of the national refrigerator market. Assembly activity has dropped since 1987. The compressors for the refrigerators manufactured by CDI are imported from Italy, Brazil, and Israel.

Société Ivoirienne de Climatisation (SIVOCLIM)

This company manufactures air-conditioning units for homes and offices. Its output is about 3,000 units per year. It also repairs and services refrigerators. It acquires CFC-12 from local importers.

Compagnie Générale Ivoirienne de Maintenance (COGIM)

The company deals with production, servicing, and repair of air-conditioning and industrial refrigeration facilities. It uses CFC-12 and CFC-115.

Refrigerator and freezer repairers

Some 400 repair shops, two thirds of which are in Abidjan, use CFC-12.

**TABLE 2.4 : LIST OF CÔTE D'IVOIRE COMPANIES
USING CFCs AND HALONS IN 1991**

Sector	Company	Used substance	Tonnes ODP
Domestic refrigeration	CIE, CDI and repairers	CFC-12	52.4
Air conditioning	<u>Motor vehicles</u> GIBA Clim Vridi Z.I. SICLIM Vridi Z.I. SIVOCLIM Vridi Z. 3	CFC-12	53.7
	<u>Central air conditioning</u> Froid Ivoire TECHNOA Bd. Giscard ClimIvoir CDI	CFC-115	9.3
Commercial refrigeration	Cool stores (fish, meat, etc.) SCODI Vridi Z.I FROID Service Africycle Froid Treichville IVOSEP PFCI Port	CFC-115	6.5
Foams	MACACI Abobo SIMCI Vridi Z.I. FIMA Koumassi Z.I. PECI Vridi Z.I.	CFC-11	4.5
Aerosols	<u>Sanitary and agricultural products</u> BAYER Z. 3 SETPC Bd. Giscard SHELL-Chimie Vridi Z. I HOECHST Bd. Giscard	CFC-114	1.5
	<u>Cosmetics</u> SIMOPA Vridi Z.I. SEWARDS Vridi Z.I. SEPARCO Vridi Z.I. SICOBEL Vridi Z.I.	CFC-12	88
Solvents	SAEC, IPL	CFC-113	0.04
Fire fighting	SIVOA Z. 3 HOECHST Bd. Giscard AÉROFEU SEEE	Halon 1301	11.6
Others	Unknown - Storage		19.5
TOTAL			247

PAST AND FORECAST CONSUMPTION

2.11 According to a market survey conducted by ODS suppliers in Côte d'Ivoire, ODS consumption is as shown in Table 2.5.

INSTITUTIONAL FRAMEWORK

2.12 The Ministry of Environment, Construction, and Urban Development created by decree No. 91-806 of December 11th 1991 dealing with the roles of members of the Government, is the institutional framework of the Government's environmental policy.

2.13 Within the Ministry there are two Central Directorates in charge of managing the environment of Côte d'Ivoire.. They are the Directorate of Drainage and Infrastructures and the Directorate of Environment.

2.14 The Directorate of Environment, the functional pivot of the entire environment policy, is in charge of studying controls and legislation for the use of natural surroundings so as to safeguard the quality of the environment. It is split into three Sub-Directorates: the Sub-Directorate of Environmental Policy Planning, the Sub-Directorate of Environmental Protection and Legislation, and the Sub-Directorate of Environmental Education and Awareness.

2.15 In the process of application of the environment policy, the Directorate of Environment works closely with other governmental bodies involved with environment protection.

2.16 The National Environmental Council (Conseil National de l'Environnement), an advisory body, helps in the definition, preparation, and monitoring of environmental policies and strategies.

2.17 The Classified Facility Inspection Service (Service de l'Inspection des Installations Classées) ensures that pollution and industrial disturbance legislation relative to all classified facilities is applied.

2.18 For implementation of the Country Programme of Côte d'Ivoire, a Côte d'Ivoire Ozone Secretariat (Secrétariat de l'Ozone de Côte d'Ivoire) under the control of the Ministry of Environment, Construction, and Urban Development will be created to take charge of the monitoring and steering of activities.

2.19 Faced with the requirements of the terms of the Protocol, the private and industrial sectors will have to take the indispensable steps towards setting up of alternative technology and substitute products.

2.20 The Government of Côte d'Ivoire has other resources at its disposal. These consist of either fiscal measures or controls, given that ODSs are imported products.

TABLE 2.5: PAST AND FUTURE ODS CONSUMPTION (TONNES ODP, 1986 TO 2000)
(FROM A MARKET SURVEY CONDUCTED BY SUPPLIERS AS PART OF THE COUNTRY PROGRAMME)

Substance	1986	1987	1988	1989	1990	1991	1992	1995	2000
Group 1 Annex A									
CFC-11	38	7	9	14.1	11.3	20	15	12	0
CFC-12	114	50.8	137.7	164.5	150.9	210	200	160	0
CFC-113	10.2	0.5	0.3	0.5	0.6	0.04	0	0	0
CFC-114	0	9.7	0	7.5	0	1.5	1.5	0	0
CFC-115	3.6	3.5	3.5	2.0	1.1	3.9	3.6	3.6	0
Subtotal	165.8	71.5	150.5	188.6	163.9	235.4	220.1	175.6	0
Group 2 Annex A									
Halon 1301	50	*	*	*	*	11.6	10	0	0
Subtotal	50					11.6	10	0	0
Group 1 Annex B									
Subtotal						-	-	-	-
Group 2 Annex B									
Subtotal						-	-	-	-
Group 3 Annex B									
Subtotal						-	-	-	-
TOTAL TONNES ODP	215.8	71.5	150.5	188.6	163.9	247	230	176	0

*No data available

2.21 Finally, it will be equally as indispensable for awareness, information, and even training action to be dispensed to users, for it is on them that the programme will rely for success.

POLICY FRAMEWORK

2.22 This section describes the policy framework in Côte d'Ivoire and highlights the factors that affect the incremental cost of phasing out of ODSs. The environmental policy will have effects on the costs of elimination of ODSs at both the national and industrial level.

2.23 Furthermore, the extra costs for individual companies depend on the global policy of the country (fiscal policies, etc.).

2.24 Côte d'Ivoire is a republic with a presidential regime. Since 1990 some 40 political parties have been active. One of them, the PDCI-RDA has occupied a leading position since its creation in 1946.

2.25 Côte d'Ivoire has had a Constitution since November 3rd, 1960.

2.26 After sustained economic growth of about 7.7% per annum during the 60s and 70s, the economy entered a prolonged period of crisis during the 80s, essentially as a result of excessive economic dependence on coffee and cocoa production which represent 70% of total exports.

2.27 As a consequence, the overall capital investment ratio fell from 28% of the GDP in 1980 to 8.5% in 1990.

2.28 In 1990, the propensity to consume was close to 8.6% for the economy as a whole, of which 68% is domestic (home) economy and 18% for the administrative economy.

2.29 In pursuance of economic adjustment, the Government set up an adjustment programme for the period 1991-1995. It is aimed at re-establishing sound and durable economic growth likely to restore the major internal and external balances simultaneously.

2.30 In application of the Montreal Protocol, implementation of the Country Programme must conform to the national environmental policy. Among other things, this involves the reduction in the use of substances controlled by the Montreal Protocol in order to reduce the risks of destruction of the ozone layer, the adoption of a policy for controlling substances used in industry, education and public awareness, and the preparation of a Côte d'Ivoire environment code.

GOVERNMENT AND INDUSTRY RESPONSES TO THE PROTOCOL

2.31 Côte d'Ivoire has been party to the Vienna Convention for the protection of the ozone layer and to the Montreal Protocol for ODSs since July 4th 1993. Ratification of the London Amendment to the Protocol is in progress. Côte d'Ivoire is also preparing the Ratification of the Copenhagen Amendments.

2.32 The Government is committed to establishing and implementing its action plan aimed at gradual elimination of ODSs as soon as this Country Programme has been approved by the Multilateral Fund Executive Committee.

2.33 For the time being, it should be stressed that the preparation of the Country Programme, in which industry participated, has enabled the industries concerned to obtain the necessary information on ODSs, thus enabling them to avoid the economic backlash of application of the Protocol.

2.34 Moreover, before implementing the Country Programme, industry has already reacted most positively to the requirements of the Protocol: all Côte d'Ivoire companies using ODSs depend on their parent companies for their supplies. The parent companies are generally European companies, and their subsidiaries are directly affected by their programmes.

2.35 Consequently, some subsidiaries have abandoned certain ODSs in favour of other less damaging substances. For example, CFC-12 has been replaced by CO₂ and de-odorized LPG in the aerosols industry. Companies that have not yet reacted by proposing the necessary changes will be forced to do so in the long run simply in order to survive.

3.0 IMPLEMENTING PHASE-OUT

STRATEGY STATEMENT BY THE GOVERNMENT

3.1 Since July 4th 1993 Côte d'Ivoire has been a member of the Vienna Convention for the Protection of the Ozone Layer and of the Montreal Protocol for ODSs. Under the terms of article 5, paragraph 1 of the Montreal Protocol, signatories must eliminate the designated "controlled" substances by the year 2010. Since Côte d'Ivoire is not a producer of these substances, it will be easy for the country to adhere to the terms of the Protocol.

3.2 Moreover, for some substances, total phase out could take place before 2010. This is the case of CFC-113, CFC-114 and Halon 1301, for example, for which the main importing firms are governed by the policy of their parent companies.

3.3 For certain other products, and particularly in key sectors like health, while awaiting the development of substitutes, the Government will impose import quotas and prohibitions during the transitional period until total elimination of ODSs.

3.4 Government strategy in this matter will thus be based on two types of policy.

3.5 Market policy, the principle aspects of which are:

- \ introduction of an ODS import tax as of 1994;
- \ introduction of incentives to promote the import of substitute products in sectors using ODSs, particularly through reduction of import duties;
- \ financial assistance and incentives for the recovery and recycling of CFC-12 in the maintenance of refrigerators and air-conditioning units in vehicles;
- \ funding of alternative technologies with subsidies from the Fund.

3.6 Control and implementation policy comprising:

- \ development of legislation on imports of ODS and their use in accordance with a schedule to be drawn up in conjunction with users and in accordance with this Country Programme;
- \ information and awareness of the informal sector, information and education of the public via refrigeration system repairers and the media;
- \ training courses and education on CFC substitutes in other technical and professional training establishments;
- \ training courses required for repairers to obtain repair licences which will be a prerequisite for purchasing products from suppliers.

Action Plan

3.7 The action plan depends on Government strategy. The principal actions envisaged are as follows:

3.8 Creation of a Côte d'Ivoire Ozone Secretariat within the institutional framework, under the supervision of the Direction of Environment in Ministry of Environment, Construction, and Urban Development. It will co-ordinate and monitor the activities called for by the Country Programme.

3.9 Periodic appraisal of the actions undertaken to eliminate ODSs.

3.10 Information and awareness campaigns aimed at importers, users, and repairers of refrigeration equipment.

3.11 Training of customs officers to enable better recognition of the controlled substances.

3.12 Other related action will be undertaken, particularly with a view to recovery and recycling.

Cost to the National Economy

3.13 The basis for calculation of the incremental cost to the economy of Côte d'Ivoire is:

\ Estimation of the number of refrigerators and air-conditioned vehicles.

Year	Number of refrigerators	Air-conditioned vehicles
1986	265 368	36 522
1987	278 615	38 044
1988	292 546	39 629
1989	307 173	41 280
1990	324 455	43 000
1991	329 192	44 720
1995	408 168	52 316
2000	529 173	63 651
2005	679 564	77 441
2010	872 653	94 218

- \ Average pre-tax cost of an R-12 refrigerator in US dollars (1992): USD540 between 1991 and 1993;
- \ Average pre-tax cost of an HFC-134a refrigerator in US dollars (1992): USD567 from 1994 to 2010;
- \ Average frequency of refilling per unit = 5 years;
- \ Average refill of a CFC-12 refrigerator:
 - up to 1993 = 1 kg
 - in 1994 = 0.75 kg
 - 1995 = 0.6 kg
 - after 1995 = 0.3 kg
- \ Pre-tax cost of a kilogram of CFC-12 in 1992 dollars = USD8 in 1994
= USD16 in 1998
- \ Pre-tax cost of a kilogram of HFC-134a in 1992 dollars = USD8
- \ Discount rate used in calculations = 10 %
- \ Incremental cost to the economy of Côte d'Ivoire approximately: USD41,600,000;
- \ Incremental cost to the economy of Côte d'Ivoire for purchase of HFC-134a refrigerators and vehicles, in 1992 US dollars = USD4, 500,000.

Projects

3.14 A summary of the projects contained in this programme is given hereafter. The projects are presented in the order of priority given to them by the Government of Côte d'Ivoire. Details of the projects are appended hereto.

TABLE 3.1
Summary of Projects

Order of priority	Years	Project	Sector	Expected results	Cost in US \$
1	1994-1996	Côte d'Ivoire Ozone Secretariat (Institutional Strengthening)	All	Co-ordination and monitoring of all activities	160,854
2	1994-1996	Training of refrigeration technicians	Refrigeration	Training of technicians on alternative technologies	53,571
3	1994	Training of customs officers	Customs Department	Introduction of an inspection system	35,714
4	1994-1996	Public awareness	Industrial, public	Awareness and responsibility of those involved in the refrigeration cycle. Reduction of CFC discharge into the atmosphere. Power savings	160,730
Total					410,869

Monitoring Arrangements

3.15 One of the tasks of the Côte d'Ivoire Ozone Secretariat will be to regularly (at yearly intervals) review the information about controlled substances in the country, and their consumption. In accordance with the various actions planned, several structures will be created and persons mandated for monitoring the Côte d'Ivoire Country Programme.

3.16 Once they have been given training under the part of the project concerning them, Customs officers will be able to more easily identify imported controlled substances, and will, every year, give data to the Côte d'Ivoire Ozone Secretariat.

3.17 Industrial groups, importers, and professional associations will be associated with the Côte d'Ivoire Ozone Secretariat. They too will each year draw up a report on their imports, marketing, and utilization of controlled substances.

3.18 With all this data, the Côte d'Ivoire Ozone Secretariat will draw up an annual report on the progress achieved in the implementation of the Country Programme and, more generally, on the application of the Montreal Protocol.

3.19 These reports will be submitted to the Government of Côte d'Ivoire for its comments, and will then be sent to the Secretariat of the Multilateral Fund for submission to the Multilateral Fund Executive Committee.

ANNEX I

Projects

PROJECT NUMBER: 1

Côte d'Ivoire Ozone Secretariat

1. Project title : Institutional Strengthening
2. Country name : Côte d'Ivoire
3. Coordinating National body : Ministry of Environment, Construction, and Urban Development
4. Implementing Agency : UNEP IE/PAC
5. ODS Consumption by sectors covered : 247 tonnes ODS
6. Proposed total budget : CFA45 million (USD160,854)
7. Project Impact : This Secretariat will be in charge of coordinating and monitoring all Government projects and actions
8. Responsibilities :
 - check the application of Government commitments as described in the document;
 - supervise the public awareness programme.
 - maintain contact with the Secretariat of the Montreal Protocol and the other bodies involved in the ozone question;
 - supply industry with the latest information on ODS substitutes and the latest technologies available in other parts of the world;
 - assess potential candidates for specific training programmes;
 - organize and manage seminars;
 - study problems in the application of the Montreal Protocol to industry
9. Justifications :
 - take action to overcome the lack of awareness of the problem of ozone depletion, its potential effect on the world, and the scientific and technical data concerning protection of the ozone layer in general and the use of technologies for replacing ODSs in particular;
 - help the institutional infrastructure tackle problems generated by the elimination of ODSs;
 - respect the commitment (prior to the Protocol) to adhere to the schedule for elimination of ODSs.

10. Beneficiaries of the project : Present and potential ODS consumers

11. Expected results :

- monitor the progress of the actions performed under the programme for elimination of ODSs and inform the Multilateral Fund;
- draw up annual reports on expenditure in the field of industrial support activities;
- exchange of relevant information with other countries;
- facilitate access by local contractors to new technologies.

BUDGET REQUIRED BY THE MULTILATERAL FUND

1.	INVESTMENT EXPENDITURE	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
	OFFICE EQUIPMENT	3 500			3 500
	PERSONAL COMPUTER AND DRIVE	3 000			3 000
	MODEM AND INVERTER	1 000			1 000
	PRINTER AND SOFTWARE	3 000			3 000
	PHOTOCOPIER	2 000			2 000
	TYPEWRITER	400			400
	FAX MACHINE	1 600			1 600
	SUBTOTAL	14 500			14 500
2.	RECURRENT EXPENDITURE				
	STAFF - INCENTIVE BONUSES				
	MANAGERIAL STAFF	12 857	12 857	12 857	
	SUPPORT STAFF	6 250	6 250	6 250	
	SUBTOTAL	19 107	19 107	19 107	57 321
3.	OPERATING COSTS				
	DISTRIBUTION OF INFORMATION AND VISITS	19 642	14 285	13 214	
	TELE COMMUNICATIONS	3 250	3 250	3 250	
	MISCELLANEOUS SERVICE COSTS (POWER, WATER, ETC.)	5 000	5 000	5 000	
	OFFICE SUPPLIES	2 143	2 143	2 143	
	EQUIPMENT MAINTENANCE	3 571	3 571	3 571	
	SUBTOTAL	33 606	28 249	27 178	89 033
	GRAND TOTAL	67 213	47 356	46 285	160 854

PROJECT NUMBER: 2

Training of technicians in the various sectors using ODSs

1. Project title : Training of technicians in refrigeration and other sectors
2. Country name : Côte d'Ivoire
3. Coordinating National: body : Ministry of Environment, Construction, and Urban Development
4. Implementing Agency: UNEP IE/PAC
5. ODS Consumption by: sectors covered : 127.6 tonnes ODS
6. Project Impact : Approximately 50% reduction in consumption for repair of refrigerators and air-conditioning units for vehicles.
7. Total Budget : CFA15 million (USD53,571)
8. Aims :
 - Train technicians specializing in refrigerator repair. The project encompasses the use of immediate substitute products, recovery, recycling of CFC-12, and new technologies.
 - Scope of the project: aimed at some 400 refrigeration and other technicians to provide familiarity with substitute technologies.
 - Purchase of twenty CFC-12 recovery and recycling units.
9. Justification :

Take action to overcome improper knowledge of correct repair procedures when ODS replacement technologies are used.

10. Detailed Budget

Year	Number of workshops	Duration	Number of participants	Sector	Expected results	Cost in US \$
1994	4	4 weeks	150	Refrigeration	Training on new technologies and substitute products	26,785
1995	2	4 weeks	150	Refrigeration	Ditto	13,393
1996	2	4 weeks	100	Refrigeration	Ditto	13,393
TOTAL	8		400			53,571

PROJECT NUMBER: 3

Training of Customs Officers

1. Project title : Technical assistance for Customs Officers
2. Country name : Côte d'Ivoire
3. Coordinating National: Ministry of Environment, Construction,
Agency and Urban Development
4. Implementing Agency: UNEP IE/PAC
5. ODS Consumption by: 247 tonnes ODS
sectors covered
6. Project Impact : Efficient control of ODS imports,
networks for monitoring and follow-up
7. Project Budget : CFA 10 million (USD35,714)
8. Aims :
 - Training of Customs officers in the identification of ODSs and the classification of imports in accordance with the Harmonized system of Brussels.
 - Scope of the project includes the training of Customs officers.
9. Justification : Absence of proper techniques for identification of ODSs in accordance with the Harmonized System of Brussels.
10. Detailed Budget :

Year	Number of workshops	Duration	Number of participants	Sector	Expected results	Costs in US \$
1994	2	2 weeks	50	All	Creation of a structure for identification and control of ODSs entering Côte d'Ivoire.	35,714

PROJECT NUMBER: 4

Awareness and information of those working in refrigeration

1. Project title : Awareness workshops for those working in the refrigeration sector.
2. Country name : Côte d'Ivoire
3. Coordinating National Agency: Ministry of Environment, Construction and Urban Development
4. Implementing Agency: UNEP IE/PAC
5. ODS Consumption by sectors covered: 247 tonnes ODS
6. Project Impact : Awareness relative to the use of equipment containing ODSs and maintenance of such equipment.
7. Proposed Budget : CFA 45 million (USD 160,730)
8. Aims :
 - Greater awareness of the problems caused at a planetary scale by CFCs and Halons.
 - Development of a joint strategy for a general-public approach defined by the Ozone Secretariat, using presentations, debates, audiovisual shows (slides, films, etc).
9. Scale of project : Aimed at all those working in refrigeration (refrigeration, air conditioning, etc.).
10. Justification :
 - Awareness of those working in refrigeration
 - Reduction of atmospheric discharge of CFCs
 - Power savings.

11. Budget :

	1994	1995	1996	TOTAL
Media: Radio, television, press	CFA13,000,000 (USD46,430)	CFA5,000,000 (USD17,860)	CFA5,000,000 (USD17,860)	CFA23,000,000 (USD82,150)
Publication of information brochure	CFA12,000,000 (USD42,860)	CFA5,000,000 (USD17,860)	CFA5,000,000 (USD17,860)	CFA22,000,000 (USD75,580)
Total in CFA francs (CFA)	25,000,000	10,000,000	10,000,000	45,000,000
Total in US\$ (USD)	89,290	35,720	35,720	160,730