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Corrigendum

COUNTRY PROGRAMME: COSTA RICA

This corrigendum is being issued to replace UNEP/OzL.Pro/ExCom/8/28.

IMPLEMENTATION OF THE MONTREAL PROTOCOL

COUNTRY PROGRAMME COSTA RICA

UNDP

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AUGUST 1992

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1 Executive Summary

Background

The Montreal Protocol is an international agreement for the phasing out of chlorofluorocarbon (CFC) and halon consumption. It was signed in Montreal, Canada in September 1987 and it has been ratified by over 80 countries globally. On June 1990, the Montreal Protocol was amended so that other substances (ODS) such as methyl chloroform (MCF, also known as 1,1,1 trichloroethane) and carbon tetrachloride (CTC) be covered by the agreement. The amendment to the Protocol aims at the total elimination from consumption by the year 2000. However, developing countries with a per capita consumption of less than 0.3 Kg are allowed a 10 year period of grace for the implementation. It should be emphasized that for the controlled substances used in export products the consumption must be zero by the year 2000, as the additional 10 year period of grace applies to meeting the domestic production requirements of the countries.

The Parties established, through the Montreal Protocol, an Interim Multilateral Fund (the Multilateral Fund) to support the incremental costs required in the developing countries to implement the Montreal Protocol and foster an early phase out in consumption.

Costa Rica ratified the Vienna Convention on July 30, 1991 and it ratified the Montreal Protocol on July 30, 1991. The estimated per capita consumption of Costa Rica is 0.0783 Kg for 1991. Thus, Costa Rica qualifies for paragraph 1 of Article 5 of the Protocol for the 10 year period of grace for the phasing out of the controlled substances and it is eligible to receive support from the Multilateral Fund.

At the request of the Government of Costa Rica, the United Nations Program for Development (UNDP), has provided its assistance for the preparation of this Country Program, a requirement for the support from the Multilateral Fund. In keeping with the guidelines for the preparation of Country Programs, the report includes a survey of the controlled substances consumption patterns, a description of the strategy for the reduction of consumption and a cost estimate for the implementation of the program as well as an action plan for the Government activities and project proposal, for which the Government of Costa Rica expects support from the Multilateral Fund.

Recommended Strategy for Reduction of the Consumption

The suggested strategy strongly emphasizes the implementation action by the industrial sector, and the Government will establish a Coordinating Government Commission for the Ozone. The plan specifies activities aimed at influencing the demand for controlled substances, and tries to modify the industrial production through training in techniques for the replacement of the controlled substances and the reduction of emissions by means of reclaiming and recycling techniques.

The intent of importers, distributors and consumers of controlled substances, the decision of the Government and the designed action plans aim at a 70% decrease in consumption in Costa Rica during the three year period of the program and at holding a schedule consistent with that of the developed countries.

In the attached letter, the Minister of Natural Resources, Energy and Mines of the Government of Costa Rica states the desire of not using the 10 year period of grace allowed to the developing countries and to go ahead as per the shortest deadlines in keeping with the advances in technology and alternative substances.

Budget and Activities for 1993-1995

The report presents a detailed breakdown of the various components of Costa Rica's Country Program, which is basically structured on two types of programs: Institutional Strengthening (US\$ 285,500), aimed at modifying the demand and fostering consumer awareness and Programs specific to the industrial sector (US\$ 136,000), aimed at modifying the production process to alternative technologies and substances; it also considers the support for short term international consulting during the implementation of the program (US\$ 50,000). Costa Rica's Country Program, as designed, amounts to a total of US\$ 471,500 for a three year period of implementation.

2 Trends and Consumption of Ozone Depleting Substances in Costa Rica

2.1 Consumption of Controlled Substances

The consumption estimates are based on data collected by a local consulting firm hired by the UNDP - Costa Rica, through information obtained from government agencies and a survey among distributors and consumers.¹ The Consultant undertook, jointly with the UNDP, a survey of industry, details of which, as well as on contacts with Government and Industry, are described in Annex A.

2.1.2 Consumption of Controlled Substances in 1991

Costa Rica does not produce controlled substances. These substances are imported by a limited number of local distributing firms and user companies. Total imports have been estimated to be approximately 252 tons in 1991, of which CFC-11 and CFC-12 represent almost 81%. Fourteen percent of imports are 1,1,1 trichloroethane, 5.26% are non-specified CFCs and 2.1% halons. See Schedule # 2.1

As to reliability, according to the local Consultant the information can be considered 70-80% reliable and this was further confirmed in the surveys. Background information on Annex A substances (Halon Group), shown in Schedules # 2.1 and 2.2, was further obtained. Costa Rica's consumption is 242.8 tons ODP. See Schedule # 2.2

The country has no army and there is neither importing nor consumption of other controlled or transition substances. However, a distributor reported having in stock HFC 134a, as well as parts and accessories for new refrigerators and/or facilities.

¹ Report of the Study on the Data relating to the Import and Consumption of Ozone Depleting Substances in the Republic of Costa Rica. CEMSO S.A., August 1992.

SCHEDULE # 2.1

**IMPORTS OF CONTROLLED SUBSTANCES AS
REPORTED BY DISTRIBUTORS AND USERS
COSTA RICA (1986 - 1991)**

PRODUCT	1986	1987	1988	1989	1990	1991
	TONS	TONS	TONS	TONS	TONS	TONS
CFC-11	21.0	48.6	56.3	75.2	18.1	35.0
CFC-12	221.5	270.8	275.9	266.8	255.5	163.8
OTHER CFCs	22.0	25.6	46.3	70.6	26.7	13.0
HALON 1211 **	N/A	N/A	N/A	N/A	N/A	3.5
HALON 1301 **	N/A	N/A	N/A	N/A	N/A	1.7
TETRACHLORIDE CARBON	0.0	38.9	3.8	0.0	0.0	0.0
1,1,1 TRICHLOROETHANE	14.6	0.0	14.8	45.3	55.4	35.4
TOTAL	279.10	383.90	397.10	457.90	355.70	252.40

Source: CEMSO S.A. Costa Rica, August 1992

** : Surveys with Halon Distributors.

Notes: The evolution of imports over the period 1987-1989, reflects the consumption of the neighbouring countries in conflict during recent years. Importation is prohibited, since 6 August 1990, by Presidential Decree. Import values have been authorized on administrative terms.

SCHEDULE # 2.2

IMPORTS OF CONTROLLED SUBSTANCES AS REPORTED BY DISTRIBUTORS AND USERS COSTA RICA - YEAR 1991

PRODUCT	DISTRIBUTORS		USERS		TOTAL		ODP	CONSUMPTION
	TONS	%	TONS	%	TONS	%		ODP TONS
CFC-11	14.0	8.4	21.0	24.3	35.0	13.8	1.0	35.0
CFC-12	134.4	80.9	29.4	34.1	163.8	64.8	1.0	163.8
OTHER CFCs	12.5	7.5	0.5	0.6	13.0	5.2	1.0	13.0
HALONS 1211 **	3.5	2.1	0.0	0.0	3.5	1.3	3.0	10.5
HALON 1301 **	1.7	1.0	0.0	0.0	1.7	0.6	10.0	17.0
TETRACHLORIDE CARBON	0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
1,1,1 TRICHLOROETHANE	0	0.0	35.4	41.0	35.4	14.3	0.1	3.5
TOTAL	166.10	100.0	86.30	100.0	252.4	100.0		242.8

Source: CEMSO S.A. Costa Rica, August 1992

** : Surveys with Halon Distributors

2.1.3 The Data

The reliability of the data requires a special consideration as the registry procedures for international trade in the Republic of Costa Rica entails a complex structure of authorizations, permits, custom duties, and the participation of various levels of the central government. There is no up-dated registry or computerized systems in the customs and the tracing of an import can be done on a random basis, being established by the importer and/or the consignor. See Local Consultant's Report on the Data Collection.

The reliability of the background that has been compiled needs to be evaluated. In any case, it establishes an adequate range of import levels but it will be required that the industrial and import structure be specified and described.

2.2 Consumption and the Industrial Sector

2.2.1 Characteristics of the Industrial Sector in Costa Rica

The industrial sector for controlled substances is not being fully described and/or identified, because of the lack of information, the minuteness and dispersal of certain industrial activities and services for uses; such as, foams, refrigeration maintenance, air conditioning, solvents and sterilization. The refrigeration, imports and distributor sector was covered in greater depth by the Consultant's work, besides being the one with the largest percentage of consumption. See Schedule # 2.3

Costa Rica is a country with a relatively low consumption of the substances controlled by the Montreal Protocol, 242.8 tons ODP annually in 1991, basically for use in the Refrigeration Area, which it is estimated to be 78.6% of the national consumption. (CFC-11 35.0 tons and CFC-12 164.0 tons.)

Schedule # 2.3

BREAK DOWN OF THE USAGE OF CONTROLLED SUBSTANCES AS REPORTED BY DISTRIBUTORS AND USERS COSTA RICA - 1991

ACTIVITY	%
REFRIGERATION	78.6
FOAMS	10.2
SOLVENTS	9.4
HALONS	1.9
AEROSOLS (FORBIDDEN)	0
TOTAL	100%
ODP CONSUMPTION Tons	252.4

Source: CEMSO S.A. Costa Rica, August 1992

2.2.2 The Refrigeration Area

The consumption for refrigeration covers mainly loss replacement in operating systems, and refill operations for equipment maintenance. Operators in this market are few and the industrial applications do not have any special characteristics of complexity.

IMPORTERS AND DISTRIBUTORS

SAUMA REPRESENTACIONES Y DISTRIBUCIONES:

Representative of DuPont Costa Rica. Very kindly, they provided information on each of the products distributed by the company, the annual amounts imported from 1986 through 1991 and the sales projections for 1992. This is the largest commercial importer in the country.

REFRIGERACION INDUSTRIAL BEIRUTE:

This is the second importer in volume. In spite of numerous calls, it was impossible to obtain direct information on the volume of imports per product; therefore, import information from the Central Bank (sub-item NAUCA 29.02.80.00) was used, in Kg, in the belief that this can be CFC.

WIMMER HNOS:

This is the third in rank in the volume of imports. This company is engaged in the manufacturing of refrigeration equipment and the supply of parts and refrigerating gas to small fridge repair shops. They kindly provided information on the products distributed and the annual amounts imported from 1986 through 1991.

USERS AND IMPORTERS

Seventy four companies that have imported during recent years (under item 29.02.xx.xx) were consulted. Of all the companies visited and consulted, 17 did not provide information, 42 of them did not deal in substances controlled by the Montreal Protocol and 15 provided information on the consumption levels of various products per year.

A listing of the Users and Importers is shown on Annex # 2 of the report on Consumption and Import Data for Costa Rica, prepared by Consultores Nacionales CEMSO S.A.

Survey:

Market operators concur in stating that it is truly possible to reduce consumption very significantly and that they are totally prepared to undertake the management of reclaiming, recycling and technical training projects. They estimate that a reduction level of 60% can be achieved within a year and they affirm that they are properly informed of the world advances on refrigerant substitutes, reclaiming and recycling units and that they even have on stock new refrigerants (HCF 134a), compressors and accessories.

The companies have indicated that certainly the market is moving towards new substances and that the world chemicals companies are closing and modifying the present production plants. They indicated that they intend to participate actively, with the purpose of orientating and guiding their clients, who might presently take investment decisions that could be technologically obsolete very soon and they expect from the Government responses on technical standards according to the advancement in the new technologies.

Conclusion:

The market is small and is concentrated in a few companies, the perceived technical knowledge is adequate and the attitude of the participants is favourable to the protection of the ozone layer and their economic activities. The access to technical services, even though scattered, is possible in a direct form and is cost efficient through their marketing and distribution networks which would permit the development of maintenance training seminars and workshops.

The economic capacity of these operators is high and adequate to the market in which they operate. No promotion subsidy or similar action is required to support these companies neither have they stated such a requirement.

In the programme it is suggested that equipment for initiating the reclaiming and recycling processes be provided, with payment of the capital value (in US \$) through their commercial operation. There would be an implicit subsidy on interest.

2.2.3 The Solvents and Sterilization Area

The data collected present a consumption of 9.4% in solvents for sterilization with 35.4 tons of 1,1,1 trichloroethane. Not many details are available on the type of application and specific use, user companies and alternatives for substitution and, therefore, Seminar-Workshop with the purpose of identifying them and establishing substitution mechanisms could contribute to that end.

2.2.4 The Foams Area

The data indicate a 10.2% utilization of controlled substances in foam applications, that the technical alternatives are widely known and that the market is atomized, that the participation of importers and distributors will be crucial to identify the users, the applications and the supply of techniques for substitution in consumption. A Seminar-Workshop has been designed with the purpose of convening them, identifying them and establishing substitution procedures through training.

2.2.5 Halons

During the data collection process, the local Consultant could not obtain information on halons. We then contacted "Microtonics" and "Previsión y Seguridad Industrial S.A.", who are importers of these substances.

The preliminary data show a consumption of 3.5 tons per year of Halon 1211. Not much information could be obtained on Halon 1301 but its consumption has been estimated to be in the order of 800 to 1000 pounds per year, which is a 1.9% consumption of the national level of consumption of controlled substances.

An indicative list of Halon 1301 facilities in Costa Rica follows:

Universidad de Costa Rica	1,800 Pounds
Caja Costarricense Seguro Social	550 Pounds
Banco Popular	700 Pounds
Registro Nacional**	200 Pounds
Standart Fruit Co	150 Pounds
Spion Electronica	150 Pounds
Instituto Nacional de Seguros	500 Pounds
Junta Protección Social**	600 Pounds
Milicom Costa Rica	80 Pounds
ICE Estación Tarbaca	300 Pounds
Junta Portuaria JAPDEVA	150 Pounds
Instituto C.R. de Ferrocarriles	80 Pounds
Instituto Tecnológico de C.R.	250 Pounds

** Discharge Facilities

The emerging damage, because of the lack of supply for discharge facilities, can be extremely high.

Particular attention should be drawn to the promulgation of the Presidential Decree of 6 August 1990, whereby the import of these substances is not permitted. For Halon 1301 there is no available substitute, to date, and its basic use is in fire prevention facilities where it acts by saturation.

2.2.6 Methyl Bromide

This substance is utilized as a fungicide and pesticide prior to planting and after harvesting, especially during the quarantine process for export. The national level of consumption is estimated to be around 30,000 kg per year, concentrated in a few agricultural companies.

For this substance, which will potentially be controlled by the Montreal Protocol, projects should be developed on integrated management of pests and reduction of fumigation emissions by means of sealed fumigation chambers and equipment for reclaiming of gases.

IMPORT STATISTICS ON METHYL BROMIDE

1986	19 Tons
1987	65 Tons
1988	34 Tons
1989	52 Tons
1990	13 Tons
1991	27 Tons

2.3 Projection of the demand for Controlled Substances

2.3.1 The Socio-Economic Context

Costa Rica has a population of 3.1 million with an annual growth rate of 2.7%, with 53% of the inhabitants located in the urban areas. The economically active population is about 34.4%, of which 71% are men and 29% women. The unemployment rate is 4.6%.

During the 1986-1990 the Gross Domestic Product (GDP) grew at an average rate of 4.5% annually to US \$1,790 per capita in 1990; exports grew at an annual average rate of 7.3% to US 1,448.2 million in 1990; and imports grew at an annual average rate of 10.8% to US \$2,025.8 million in 1990. On that year, non traditional exports represented 48.5% of the total exports. Agriculture contributes 16% of the GDP whereas industry and services contribute 26% and 58%, respectively. The agriculture sector represents approximately 60% of exports. The traditional agro-export production has reached high levels of technification; however the productive structure of small agricultural operators continues to be not too technified and hardly diversified. The manufacturing industry has experienced considerable growth; however, it is little competitive on the international market.

The literacy rate is 93% for both male and female adults. Life expectancy at birth is 75 years. In rural areas, 83% of the population has access to drinking water and 63% to health services; in the urban areas these percentages are considerably higher. This situation places Costa Rica among the countries with a high human development index, according to the UNDP report on Human Development for 1991.

Source: Fifth UNDP National Programme for Costa Rica 1992-1996.

2.3.2 Demand Projection

In spite of the possibility of projecting future demand on the basis of the behaviour of the economy, the exercise becomes an extremely spurious one in terms of the potential conclusions because of the following considerations:

- a) Previous years statistics include purchases made by users from Nicaragua, a country that was at war and potentially from El Salvador. The magnitude and details of such external demands for controlled substances are not known.
- b) As from August 1990 a Presidential Decree prohibits the importation of all substances listed in Annex A, Groups I and II of the Montreal Protocol. However, the compiled, background data show levels higher than zero for imports and consumption.
- c) Compiled data show a discrepancy of 10-40% between the information from Statistics and Census, Central Government and the information provided by distributors and importers. The local consultant assigns a 60-70% reliability value to the compiled information.
- d) The Costa Rica data reports does not show any details on the users of the controlled substances, types of production - intermediate or end user, number of companies for the various sectors of consumption, information on ownership - local or international, types of companies, size, markets, industrial census. A background that alters the behaviour of the companies and the rates of implementation.

The assumptions do not include a projection for the demand of controlled substances or scenarios for demand and consumption behaviour of the controlled substances, with or without the Montreal Protocol.

The aerosol sector has reconverted to propane-?? gas propellant last year. The refrigeration sector expects a 60% reduction within a year which accounts for 78.3% of the national consumption level. In the foams area, a 50% reduction in consumption is expected, according to the available technology and this accounts for 10.2% of the national consumption level, similar to the reduction in solvents, which accounts for 9.4% of total consumption.

2.4 The Institutional Framework

The President of Costa Rica, Lic. Rafael Angel Calderón Fournier, on 14 December 1990 made the Proclamation on the Environment towards a new Ecological Order of International Co-operation.

In it, he establishes a clear commitment to Environment:

"Costa Rica is prepared to continue fulfilling its environmental responsibility and to improve its performance. We are dedicated to perfect our legislation, to formulate more effective policies, to improve the organizational structures, to implement an effective process of pre-evaluation and follow-up of the environmental impact of major projects and to complement our managerial and executive personnel with duly trained and qualified scientists and technicians."

"The Government of the Republic of Costa Rica, within the framework of the "New Ecological Order" created, through Executive Decree (D.E. 19954-RE 16/10/90), the Comisión Ecológica para Aplicación y Promoción de un Nuevo Orden Ecológico Internacional (Ecological Commission for the Implementation and Promotion of a new International Ecological Order), with the approval of the Departments of Foreign Affairs and of National Resources, Energy and Mining, and the Presidential Advisory Council on the Environment - CONAMA, made of Ministerial level members."

2.4.1 Government Agencies and the Montreal Protocol

The Government of Costa Rica has acted upon the Montreal Protocol through the Departments of Foreign Affairs and Natural Resources, Energy and Mining, which in turn converge to the Ecology Group Commission for the Implementation and Promotion for a New International Ecological Order. The Minister of Natural Resources, Energy and Mining has the responsibility of the Secretariat of the Environmental Council.

In the Department of Natural Resources, Energy and Mining, one of the Directorates attached to this actions is the National Institute of Meteorology, as per Decree 16281-MAG of 17 June 1985, the purpose of which is to perform advisory duties on behalf of the Ministry through the Department of Information and Divulgation. The National Delegate to the Meetings of the Montreal Protocol is a government official from this Directorate.

This NIM Directorate has been assigned the task of creating a specific unit, for the duration of a limited period of time, that will carry out the co-ordination, follow-up and implementation of the Country Programme for Costa Rica. Its institutional and political backing will be provided by the relevant Departments and for its support tasks by the above-mentioned Minister.

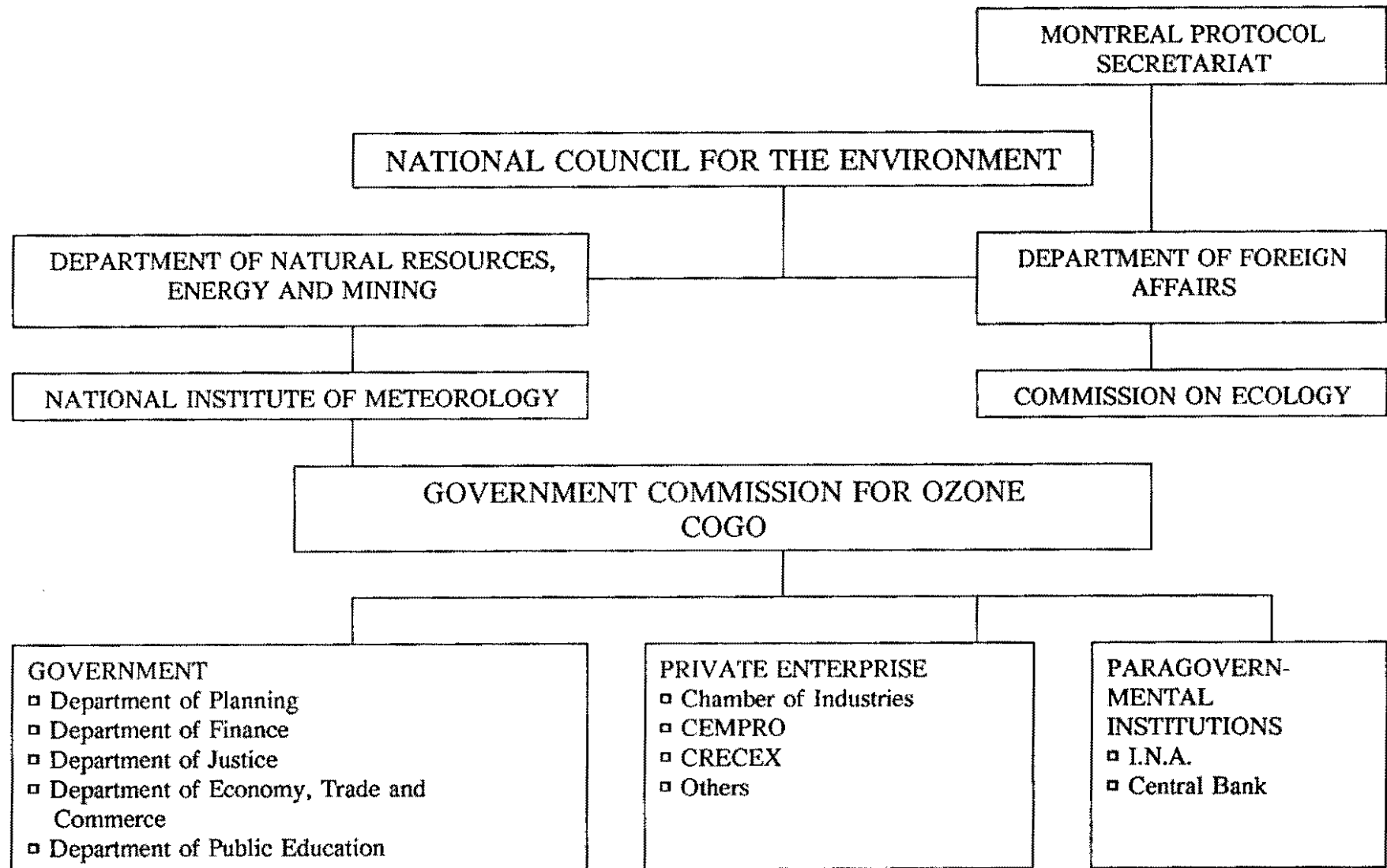
A Government Commission for the Ozone (COGO) will be created. A Government official assigned to this task for 3/4 of the time will act as supervisor responsible of the Commission during the next three years. It is expected that another engineer specializing in management will be added to the complement. COGO will be situated in the offices of the National Institute of Meteorology (NIM). See Diagram.

COGO's function will be that of co-ordinating the projects of the present Country Programme with the Government Sector and Government agencies:

- Department of Finance, Customs
For the designing of the registry procedures for the international trade of goods and controlled substances.
- Department of Health, Security and Environmental Health Branch
For the designing and agreement on procedures for the registration and control of imports as well as for the use of controlled substances. Also, within the scope of regular tasks of this Branch, inspectors will visit and perform checks on the industrial sector in Costa Rica.
- Central Bank, International Trade Department
For the reception and distribution of reports with information on substances.
- Department of National Planning,
- Department of Economy, Trade and Commerce,
- Department of Education

For the establishment of mechanisms, procedures for the co-ordination and distribution of information, as well as for technical support for the implementation of the Country Programme. See Diagram.

INSTITUTIONAL FRAMEWORK COSTA RICA



2.4.2 Industrial Associations

The importers, distributors and users of ozone depleting substances in each sub-sector are few, with knowledge of substitution techniques, control of the market and access to financial resources. These national and foreign operators expect to participate actively and directly in the implementation of the Country Programme for the Protection of the Ozone Layer in Costa Rica.

Through surveys carried out, it has been established a total preparedness to assume an active role by the Cámara de Industrias de Costa Rica (Industrial Chamber of Costa Rica) which relies on ad-hoc organizations, such as, Ecological Secretariat. The Chamber of Exporters have requested a larger participation in the programme for the increase and better access to foreign markets.

The Industrial Chamber of Costa Rica, in the course of the meeting indicated its preparedness to participate actively in the implementation of the Country Programme. A commitment letter from the Industrial Chamber of Costa Rica addressed to the UNDP is attached. This makes possible to considerably increase the successful feasibility of these initiatives, as a result of this action by the private industrial sector.

2.4.3 International Organizations

The United Nations Development Programme, UNDP, in its capacity as an implementing agency for the Montreal Protocol, has commissioned the data collection, the proposal of Country Programme for the Implementation of the Montreal Protocol on substances that Deplete the Ozone Layer and will act, in future, as a counterpart for the implementation of the programme in Costa Rica.

2.5 Policy Framework for Implementing the Country Programme

The Government of Costa Rica is aware that the amount of the national consumption of controlled substances is near the 250 tons annually and that its uses correspond basically to Refrigeration, Foams, solvents, Cleaning and Halons, and it expects to carry on its future actions through Conventions of Agreement and Complementation with the National Private Sector. The utilization of economical policy mechanisms, such as, quotas, duties and taxes to achieve a reduction in consumption has not been contemplated.

Within the Government framework, through COGO, mechanisms for co-ordination and information will be generated in order to carry out the control of data on import, transfer of technology and implementation, for which purpose agreements will be entered with:

Government Sector:

Department of Health;	Environment Control/Health
Judiciary;	Drugs and Narcotics Control
Central Bank;	
Department of Finance	Customs - generating listing of names and goods and/or equipment produced that contain controlled substances
Department of National Planning	
Department of Economy, Industry and Trade	
Department of Education	

Private Sector:

Media; Labour Organization, Chamber of Commerce and Industry; Chamber of Exporter; Distributors, Importers and Users of controlled substances.

A very favourable attitude has been observed and there exists in operation programmes by transnational companies, such as, DuPont and Coca Cola (Central America Headquarters), which have offered their sponsoring.

The Co-ordination Commission (COGO) function will be the collection and maintaining of data, the distribution of technical information and the public awareness.

It will carry out co-ordinating functions for the workshops and seminars on Training for the Private Sector which will be implemented in the maintenance and technical services and companies.

It will co-ordinate the technical reports on education and training aiming at the reduction of the consumption and/or the emissions of controlled substances.

2.6 National Legislation

The Government of Costa Rica with the purpose of fulfilling its commitment to the Environment and the Montreal Protocol has published the following documents in the official Gazette:

10 May 1990	Ratification of the Montreal Protocol on Substances that Deplete the Ozone Layer.
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6 August 1990	Presidential Decree prohibiting the use of CFCs, Halons and Aerosols.
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7 August 1991	The Department of Foreign Affairs adheres to the Vienna Convention for the Protection of the Ozone Layer
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The Department of Foreign Affairs adheres to the Montreal Protocol on Substances that Deplete the Ozone Layer.

The Government of Costa Rica has signed and ratified the Vienna Convention and the Montreal Protocol before the United Nations on 30 July 1991.

The establishment of regulations in connection with the 6 August 1990 publication of the Decree will be required in order to permit the import and utilization of controlled substances by the Protocol in those applications in which there are no technical substitutes available, as yet.

3. The Country Programme and the Instruments for Economic Policy

3.1 The Instruments and the Economic Policy

In the design of this Country Programme for Implementation of the Montreal Protocol, Government action has been favoured through a small, technical unit for coordination that is specialized, of limited duration and scope and which would not undertake any direct, implementing activities.

The Co-ordination Commission, Comision Gubernamental de Ozono, COGO, will act through ruling activities and technical direction by the Government on procedures, operating mechanisms. It will handle the preparation of regulations, standards and procedures in support of the Minister and the Government in connection with legislative initiatives.

The central role, in the reduction of emissions and consumption of controlled substances, is strongly assigned to the private sector which will implement the different projects that will be designed, and which will be convened and co-ordinated by the Commission of Co-ordination.

The Country Programme has two types of programmes which will affect the users (Demand) and the industries (Production).

I. Institutional Strengthening

- Aimed at developing COGO;
- Computerized connection to international data bases and transfer of technology;
- Surveys on standards and proposals for changes;
- Awareness of general public and users.

In terms of market development for export and support to industrial sectors, a program has been included on:

- Sello Ozono Libre (Ozone Free Seal), permitting to work on measures for quality certification for the production of goods destined to the national and export markets.

II. Industrial Sector Specifics

- Technical Training workshops and seminars.

Aimed at identifying, diagnosing and training on techniques and substitutes to the controlled substances in the various uses identified.

- Components for the reclaiming and recycling of controlled substances in order to reduce emissions.
- Guidance for the Government on policies for the protection of the ozone layer.
- Promoting of specific actions of industry for public awareness on the protection of the ozone layer.

COUNTRY PROGRAMMES I

INSTITUTIONAL STRENGTHENING

COGO
INTERNATIONAL DATA BASE
QUALITY SEAL
PUBLIC EDUCATION ON OZONE

IMPACT ON DEMAND

CONSUMERS

COUNTRY PROGRAMMES II

INDUSTRIAL SECTOR SPECIFICS

REFRIGERATION AREA
FOAM AREA
SOLVENT AREA
STERILIZING MATERIAL

IMPACT ON PRODUCTION

INDUSTRIES

3.2 COUNTRY PROGRAMME PROJECT/MONTREAL PROTOCOL MATRIX

PROJECT COMPONENTS	ACTIVITIES	OBJECTIVES	IMPLEMENTING AGENCY	YEAR	VALUE IN US \$
Global Project:					
Implementation of the Montreal Protocol by the Country		Reduction of the consumption of controlled substances: 70%			
By components:					
I. Institutional Strengthening Programme					
A.1 Governmental Commission for Ozone COGO	a) Development	Make possible implementation of Ozone Plan		1993	46,200
				1994	30,600
				1995	30,600
	b) Development Production Plan	Detailed programming of Plan Implementation			
	c) Implementation of Plan				
A.2 Changes to the National Standards and Regulations	a) Study of Standards and Regulations	To know the laws, standards and customs controlled system	COGO		
	b) Proposal for changes	Making compatible laws , standards and customs system	COGO	1993	5,390
	c) Support through change implementation	Publicizing and awareness at the legislative power lever	COGO	1993	3,850
A.3 Development of the quality seal	a) Study and design of the seal	Completion of seal and establishment of procedure	COGO Private Sector	1993	4,400
	b) Implementation	Utilization of seal in final products	COGO Private Sector	1993	19,200
				1994	8,800
				1995	8,800

PROJECT COMPONENTS	ACTIVITIES	OBJECTIVES	IMPLEMENTING AGENCY	YEAR	VALUE IN US \$
A.4 Public Education on Ozone	a) Education by media	Information to the public	COGO	1993	26,220
				1994	14,320
	b) Production and distribution of brochures	Information to sectors	COGO	1993	11,990
	c) Formal education	Create ozone awareness in student population	COGO MINDE	1993	22,000
II. Specific Industrial Projects					
B.1 Retrofitting in Refrigeration Area	Recycling in Technical Services	Training and Implementation	COGO	1993	88,000
B.2 Retrofitting in Foam Area	Workshop-Seminar	Training	COGO	1993	21,120
B.3 Retrofitting in sterilization solvent Area	Workshop-Seminar	Training	COGO	1993	21,120

3.3 SUMMARY OF COUNTRY PROGRAMME COSTS

(in US dollars)

YEARS USAGE OF FUNDS	1993 LOCAL	1994 LOCAL	1995 LOCAL	SUM TOTAL
<u>I. INSTITUTIONAL STRENGTHENING PROGRAMME</u>				
A.1 COGO Operation	46,200	30,600	30,600	107,400
A.3 Standards Amendment	9,230	---	---	9,230
A.4 Quality Seal	24,200	8,800	8,800	41,800
A.5 Public Education on Ozone	40,410	14,320	---	54,730
TOTAL	120,040	53,720	39,400	213,160
<u>II. SPECIFIC INDUSTRIAL SECTOR PROGRAMMES</u>				
B.1 Refrigeration Area	88,000			88,000
B.2 Foams Area	21,120			21,120
B.3 Sterilization Solvents Area	21,120			21,120
TOTAL	130,240	---	---	130,240
Short Term Consulting on Implementation (1993: 3 1994: 2)	30,000	20,000		50,000
GENERAL TOTAL	280,280	73,720	39,400	393,400

4. DEVELOPMENT OF COUNTRY PROGRAMME COMPONENTS

4.1 Background

The components for the institutional strengthening and industrial sector programmes are presented develop in detail with all their items, with the purpose of facilitating their subsequent implementation and follow-up, both by the Government Commission on Ozone COGO as well as by the International Agency UNDP.

The Country Programme will be developed bearing in mind the establishment by the Government of a co-ordinating Commission empowered to establish the governmental team.

Based on the work done, one can conclude that it is necessary in the process of decision making the existence of an adequate technical advisement entity committing to assist the Government in the successful fulfilment of its objectives and commitment for the reduction in consumption. The active participation of the Private Sector in the implementation is crucial in the present design.

4.2 Objective of the Country Programme

Implementation of the Montreal Protocol with the reduction by the years 1993-1995 of 70% of the consumption and emission of controlled substances, in subsequent years reduction will be based on the state of art in order to be able to follow the reduction patterns in the developed countries, to be a zero consumption country.

4.3 Programme types

The programmes designed, according to characteristics of the consumption and the usage of the substances, are grouped in:

- I. Institutional Strengthening Programmes
- II. Specific Industrial Sector Programmes

COUNTRY PROGRAMMES I

INSTITUTIONAL STRENGTHENING

COMPONENTS

I. INSTITUTIONAL STRENGTHENING PROGRAMMES

I.A.1 Government Commission on Ozone COGO

a) Background:

For assistance, implementation and control of the Country Programme by the Government, it is required a specialized team on the subject.

This Group will be made up by 2 engineers:

Candidate Profile

- i) Level A Engineer with more than 15 years of experience, industrial knowledge and Montreal Protocol;
- ii) Level B Engineer with 5 years of experience, with training and/or specialization on business management, business administration, industrial processes, knowledge of personal computers, ideally an Industrial Engineer.

b) Objectives:

The following tasks should be undertaken by the team:

- To assist the Government through the Government Commission on Ozone, COGO, as a technical counterpart in every aspect pertained to the Montreal Protocol.
- To co-ordinate the implementation of the components of the Institutional Strengthening and the Specific Industrial Programmes.
- To co-ordinate the various efforts in the specialized, technical and scientific areas.
- To assist and support actively private industry in the technological transfer in order to facilitate the commitment to reduce the consumption of the controlled substances.
- To control, supervise, and release reports on the outcome of the adopted measures.
- To support the permanent contact with the media.
- To facilitate actions related to ozone subjects for the measures of economic policy to be undertaken.
- To maintain the technical liaison of the Government with the International Organizations: Secretariat and Multilateral Fund of the Montreal Protocol,

Implementing Agencies UNDP, UNEP, WB.

- To produce quarterly reports on implementation of the programme, activities, statistics on controlled substances, usage and consumption to the Minister and to International Agency UNDP.

c) Expected outcome:

Functional commission responsible technically to Government and the International Organizations for the co-ordination of the Country's Action Plan (to be established by December 1992).

d) The Activities:

1. Government Commission on Ozone COGO

- Selection and recruitment of 1 expert (3/4 of the time) and 1 full time local professional.
- Selection and recruitment of 1 secretary.
- Assignment of duties and responsibilities.
- Recruitment of physical resources for COGO:

Office, furniture, computer equipment, communication equipment. National Institute of Meteorology. IMN

2. Programme Execution

- Preparation of detailed Gantt Chart of activities and components, quarterly plans for implementation.
- Co-ordination of implementation teams for start-up of components.
- Monitoring of actions included in the different components of the Country Programme.
- Follow-up in keeping with the action plan.

e) Requirements:

Government Commission on Ozone COGO				
YEAR	1993	1994	1995	
USAGE OF FUNDS	LOCAL	LOCAL	LOCAL	
ITEM	US\$	US\$	US\$	
* Human Resources				
(An incentive is included in Human Resources)				
- Level A Engineer (1)				
Annual incentive US \$10,000	10,000	10,000	10,000	
- Local Professionals (2)				
Annual incentive US \$8,000	8,000	8,000	8,000	
Human Resources Total	18,000	18,000	18,000	
* Equipment				
- Computer equipment				
1 unit: 386; 4Mb Ram; 120 Mb DD;				
WP 5.1; QPRO (indicative)				
for COGO and Health Department,				
Environment Health and Security				
- Phones, Modem, Fax communications				
Co-ordinate with UNEP-Paris				
IE/PAC Programme				
Equipment Total	14,000			
SUMMARY OF REQUIREMENTS PER ACTIVITY				
Human Resources Total	18,000	18,000	18,000	
Equipment Total	14,000			
Furniture Total				
Operating Expenses Total	11,000	10,800	10,800	
Activity Total	32,000	18,000	18,000	
Contingencies 10%	3,200	1,800	1,800	
<u>COGO Component Total</u>	<u>46,200</u>	<u>30,600</u>	<u>30,600</u>	

I.A.2 The Country's Standards Amendments

a) Background:

Based on the surveys and preliminary revision of archives and libraries, it is assumed for the study purposes that there are legislation and standards but they are not operative for the enforcement of the Protocol.

As regards to the customs codes, they do not provide the breakdown of controlled substances imports. They are based on the NAUCA Nomenclature (Central American Unified Customs Standards). On January 1993 a new world unified system (GATT) will be implemented, thus permitting a better access to information and greater control.

The study and proposal for changes to the existing standards will require a legal specialist and the assistance of all the professionals.

b) General Objectives:

To have an adequate study of the current legislation in effect and related to the objectives of the Protocol.

To systemize present provisions of the custom's frameworks and various standards.

To propose changes consistent with the economic policies and the custom's control systems for imports.

To systemize and divulge the proposals.

c) Expected outcome:

A conclusion is expected on the status of current legislation and the legal body on hand by the Executive and Legislative Powers having as a result, the necessary changes for the protection of the ozone layer in addition to the improvement for the environment legislation in Costa Rica.

d) The Activities:

This component has two main activities:

A.2.1 STANDARDS SURVEY AND PROPOSAL OF CHANGES

(3 months)

- Review of Laws, Standards and Custom's Control System, existing in the country.
- Systemizing of standards.
- Making of laws, standards and custom's control system consistent with the Protocol implementation through amendments.
- Comparison with similar experiences in other countries.
- Design of proposal for changes.

A.2.2 SUPPORT AND IMPLEMENTATION OF CHANGES

(2 1/2 months)

- To facilitate COGO's work in support of the Executive Power in the legislative field.
- To divulge the proposals to other parties.
- Draft law proposals.
- To facilitate consulting with the various relevant sectors.

e) Requirements:

A. STANDARDS SURVEY AND PROPOSAL OF CHANGES

(3 months)

YEAR	1993
USAGE OF FUNDS	LOCAL
ITEM	US\$
* Human Resources	3,000
- Lawyer (1)	
monthly fees US \$1,000	
US \$1,000 x 3 ..	3,000
* Material Resources	1,900
- Administrative Expenses	
US \$500.....	500
- Travel	
US \$600.....	600
- Research and Surveys	
US \$600.....	600
- Photocopies	
US \$200.....	200
Activity Total	4,900
Contingencies 10%	490
<u>Standard Survey Total</u>	<u>5,390</u>

B. SUPPORT AND IMPLEMENTATION OF CHANGES
(2 1/2 months, 1/2 time)

YEAR	1993
USAGE OF FUNDS	LOCAL
ITEM	US\$
* Human Resources	1,800
- Lawyer (1)	
monthly fees US \$600	
US \$600 x 3...	1,800
 * Material Resources	 1,700
- Lobby Work	
US \$700.....	700
- Travel, Interviews, Expenses	
US \$700.....	700
- Stationery and Reports	
US \$1,000.....	1,000
 Activity Total	 3,500
Contingencies 10%	350
 <u>Support and Implementation Total</u>	 <u>3,850</u>

SUMMARY OF REQUIREMENTS BY ACTIVITY

Study of Change Proposal Total	5,390
Support and Implementation Total	3,850
 <u>Standards Change Component Total</u>	 <u>9,240</u>

I.A.3 Quality Seal

a) Background:

In order to stimulate the marketing of end user goods free of substances controlled by the Montreal Protocol and, also, to develop public awareness acting on the demand for goods, it is proposed the establishment of the quality seal known for those goods. This initiative will also help to the development of foreign trade and entry to the developed countries' markets.

The design should be created through an advertising specialist and with the assistance of the Chamber of Industries, Chamber of Exporters of Costa Rica for its successful deployment.

b) General Objectives:

- To design a seal that is attractive, ecological and minded, ozone friendly.
- To publicize it in such a manner that it stimulates the preference for goods free of substances that deplete the ozone layer.
- Development of the procedure for its distribution and preference for the public.
- Development of its advantages for the consumer and the industries.

c) Expected outcome:

To have this Ozone Free Quality Seal for products, its integration through this initiative with the private sector and the reduction of the demand for products that contain or are produced with controlled substances.

d) The Activities:

This component has two main activities:

A.3.1 STUDY AND DESIGN OF THE SEAL

(2 months)

- Public Call for tenders for design and contract award.
- To carry out inquiries and participation of the industrial sector.
- Designing of the Quality Seal.
- Establishment of mechanisms so that it is well known and approved by the consumer public.
- Regulations for its use, standards for control and future action for private financing.

A.3.2 IMPLEMENTATION (4 months)

- Printing of seal and distribution through the Chamber of Industries.
- Implementation of approval mechanisms for products with relevant organizations.
- Divulging of seal's characteristics.

e) Requirements:

YEAR USAGE OF FUNDS ITEM	1993 LOCAL US\$	1994 LOCAL US\$	1995 LOCAL US\$
A. STUDY AND DESIGN			
- Study and Design	3,000		
- Regulation for Enforcement	1,000		
Activity Total	4,000		
Contingencies 10%	400		
<u>Seal Study Total</u>	<u>4,400</u>		
B. IMPLEMENTATION			
-Printing 10,000 seals	8,000		
-Divulging (Magazines)	5,000	3,000	3,000
-Quality Control Measures and follow-up	5,000	5,000	5,000
Activity Total	18,000	8,000	8,000
Contingencies 10%	1,800	800	800
<u>Seal Implementation Total</u>	<u>19,800</u>	<u>8,800</u>	<u>8,800</u>

COMPONENT REQUIREMENTS SUMMARY:

A. Study and Design	4,400		
B. Seal Implementation	19,800	8,800	8,800
<u>Quality Seal Component Total</u>	<u>24,200</u>	<u>8,800</u>	<u>8,800</u>

I.A.4 Public Education and Awareness of Ozone

a) Background:

As the public awareness increases the community will be more committed to success of the political, economical and other measures to be adopted.

There are successful experiences of various actions intended to inform, publications, specialized articles and the general public of other countries.

Based on Article 9, part 2 of the Montreal Protocol, the countries are urged to take initiative on public awareness.

b) General Objectives :

- To inform and make the public opinion and the sector level to be aware of the significance of the Protocol and the implications of the thinning of the ozone layer.
- To inform on the action and activities in Costa Rica.
- Design and distribute informative brochures.
- To obtain the co-operation of the industrial sectors, importers and media to this effect.

c) Expected outcome:

Advertising action through journalist and specialized publications on environment.

Advertising through video and journals with private sponsoring.

Distribution of brochures by relevant sectors: Consumers, corporations, professionals and students.

Activities orientated through the education of media, technical professional and basic.

d) The Activities:

This component has three main activities:

A.4.1 Education by Media
(1993 - 1994)

- Design of a more efficient campaign
- Carrying out of round tables with specialized journalist.
- Design of informative advertising for sponsorship by the private sector, posters.
- Production of video show for exhibits and support.

A.4.2 Production and distribution of brochures
(3 months)

- Design of Plan for specific sectors: corporations, professionals, secondary schools, specialized press.
- Development of brochures and dossier for each relevant sector.
- Production and publication of brochures and dossier.
- Distribution of the above through the Chamber of Industries, Department of Education, Professional Associations and Press Services.

A.4.3 Education through training institutions
(3 months)

- To organize with and through the Department of Education, the University and Chamber of Industries and/or Exporters of Costa Rica, lectures in colleges, professional or technical training centres.
- Organization of lectures; child events, youth activities, related to protection of the ozone layer.

e) Requirements:

A.4.1 EDUCATION THROUGH MEDIA

YEAR USAGE OF FUNDS ITEM	1993 LOCAL US\$	1994 LOCAL US\$
* Plan (3 months)	1,800	
- Publicity specialist (1) monthly fees 600 US \$600 x 3....	1,800	
* Round Tables (1993: 3 and 1994: 3)	4,020	4,020
- Invitation and Organization US \$140 x 3....	420	
- Ads in newspapers US \$400 x 3....	1,200	
- Premises rental US \$200 x 3....	600	
- Dossiers for media US \$200 x 3....	600	
- Fees of lecturers US \$400 x 3....	1,200	
* Plan	1,800	
* Round Tables	4,620	4,620
* Preparation of video	4,000	
* Ads in newspapers	4,000	4,000
* Ads in TV	10,000	5,000
Total Media	23,820	13,020
Contingencies 10%	2,400	1,300
<u>Total Media</u>	<u>26,220</u>	<u>14,320</u>

A.4.2 BROCHURE PRODUCTION AND DISTRIBUTION (10 months)

YEAR USAGE OF FUNDS ITEM	1993 LOCAL US\$
* Development and design	2,100
- Drafting Gov. Ozone Commis.COGO	
- Diagrams US \$300 x 3....	900
- Diagrams Dossier US \$400 x 3....	1,200
* Publication and Distribution	8,800
- Brochures for Companies US \$1.4 x 500	700
- Brochures for Professionals US \$1.4 x 500	700
- Brochures for Students US \$0.5 x 10,000	5,000
- Kits for the Press (times year) US \$100 x 4	400
- Distribution US \$	2,000
Production and Distribution Activity Total	10,900
Contingencies 15%	1,650
<u>Production and Distribution Total</u>	<u>12,550</u>

A.4.3 EDUCATION THROUGH TEACHING INSTITUTIONS
(1 year)

YEAR USAGE OF FUNDS ITEM	1993 LOCAL US\$
* Designing of Plan	2,000
* Advertising and Posters	2,000
* Lectures	6,000
- Lecturers US \$200 x 20	4,000
- Paper US \$100 x 20....	2,000
* Children's-Youth Contest	6,000
Activity Total	20,000
Contingencies 15%	3,000
<u>Education through Teaching Institutions Total</u>	<u>23,000</u>

SUMMARY OF REQUIREMENTS PER ACTIVITY

Media Total	28,100	15,680
Brochures and Kits Total	12,550	
Institutional Education Total	23,000	
<u>Education Component Total</u>	<u>63,650</u>	<u>15,680</u>

COUNTRY PROGRAMMES II

SPECIFIC INDUSTRIAL SECTOR PROGRAMMES

COMPONENTS

I. SPECIFIC INDUSTRIAL SECTOR PROGRAMMES

II.B.1 RETROFITTING AND TRAINING IN REFRIGERATION AREA

a) Background:

the equipping of small machinery for reclaiming, technical service for refrigerators and ice machines, and major equipment for recycling. It has been suggested that they should be delivered to distributors who will pay the capital value in US \$ with the operation of the reclaiming and recycling activities.

b) General Objective:

Technical training, reclaiming and recycling of refrigerating gas in refrigerators and ice coils.

c) Expected outcome:

Training of technical service people of importers and distributors and informal start up of sector training to reduce emissions of cooling gases.

d) The Activities:

- Preparation of a training course.
- Co-ordination of international monitors.
- Equipping with machines.
- Implementation at headquarters (San Jose).
- Implementation at branches.

e) Requirements:RETROFITTING AND TRAINING IN REFRIGERATION AREA

YEAR	1993
USAGE OF FUNDS	LOCAL
ITEM	US\$
* Course Preparation	10,000
- Foreign advisory service	
US \$..... 4,000	
- National Organization	
US \$..... 6,000	
* Equipping for machinery	60,000
- Equipment Importation	
US \$..... 55,000	
- Materials	
US \$..... 5,000	
* Implementation at headquarters	2,000
- National monitors	
US \$..... 2,000	
* Implementation at branches	2,000
- National monitors	
US \$..... 2,000	
* Travel and transfers	
- Travel of foreign advisor	6,000
US \$..... 3,000	
- Travel and transfers-local	
US \$..... 3,000	
Activity Total	80,000
Contingencies 10%	8,000
<u>Refrigeration Area Total</u>	<u>88,000</u>

DETAIL OF EQUIPMENT

Reclaiming of 25 equipment units	US \$1,000 e/a	US \$25,000
Recycling 6 equipment units	US \$4,500 e/a	US \$27,000

Centres for the reception and sale of recycle refrigerating gas with distributors/importers.

Only amount to be charged interest, on refund of capital US \$.

II.B.2 RETROFITTING AND FLEXIBLE FOAMS AREA

a) Background:

There are possibilities to implement a Workshop or Seminar to stimulate the retrofitting process in the flexible foams area. Molds, mattresses and refrigerators. The consumption of this sector for controlled substances is 10.2% of the national consumption level.

b) General Objective:

Workshop to stimulate retrofitting in the flexible foams area.

Convene, contact the agents in this market, to carry out the census of uses and applications.

c) Expected outcome:

Training of the foams production sector using CFC, on retrofitting techniques. It is expected an 80% production of the consumption in this sector within 8 months of educational intervention.

d) The Activities:

- To organize Workshop.
- To co-ordinate with national experts.
- To carry out the Workshop.
- To generate the data base on agents in this sector.

e) Requirements:B.2 FOAM WORKSHOP SEMINAR
(year 1993)

YEAR USAGE OF FUNDS ITEM		1993 LOCAL US\$
* Organization		4,000
- National Organization and Financing US \$.....	4,000	
* Infrastructure		6,200
- Rental US \$400 x 3...	1,200	
- Advertisement US \$700 x 3...	2,100	
- Materials US \$900.....	900	
- Outside infrastructure US \$2,000.....	2,000	
* Execution		4,500
- Meals US \$1,500.....	1,500	
- Equipment US \$1,000.....	1,000	
* Travels		4,500
- Nationally US \$1,500.....	1,500	
- Internationally US \$3,000.....	3,000	
Workshop Activity Total		19,200
Contingencies 10%		1,920
<u>Workshop Implementation Total</u>		<u>21,120</u>

II.B.3 RETROFITTING IN THE SOLVENTS STERILIZATION AREA

a) Background:

The national consumption of solvents 1,1,1 Trichloroethane, substance included in the Amendment to the Montreal Protocol is 35.4 tonnes per year, a 9.4% of the national consumption level. There is no background information on the usage of these substances and this should be obtained during the development of the programme.

b) General Objective:

Holding of workshops to stimulate and provide incentives for retrofitting in the solvents area.

To convene, contact the agents in this market, to carry out the census of usage and applications.

c) Expected outcome:

Training of the sector for retrofitting in the utilization of solvents. It is expected a reduction of the sector reduction and to be able to reach a zero consumption phase as these applications are not considered essential.

d) The Activities:

- To organize Workshop.
- To co-ordinate with national experts.
- To hold the Workshop.
- To generate data base on agents in this sector

e) Requirements:B.3 SOLVENT WORKSHOP SEMINAR
(year 1993)

YEAR USAGE OF FUNDS ITEM		1993 LOCAL US\$
* Organization		4,000
- National Organization and Financing US \$.....	4,000	
* Infrastructure		6,200
- Rental US \$400 x 3...	1,200	
- Advertisement US \$700 x 3...	2,100	
- Materials US \$900.....	900	
- Outside infrastructure US \$2,000.....	2,000	
* Execution		4,500
- Meals US \$1,500.....	1,500	
- Equipment US \$1,000.....	1,000	
* Travels		4,500
- Nationally US \$1,500.....	1,500	
- Internationally US \$3,000.....	3,000	
Workshop Activity Total		19,200
Contingencies 10%		1,920
<u>Workshop Implementation Total</u>		<u>21,120</u>

ANNEX A Contacts in Government and Industry

INTERVIEWS BY THE UNDP COSTA RICA CONSULTANT AUGUST 1992
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