



**United Nations
Environment
Programme**



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

Twentieth Meeting
Montreal, 16-18 October 1996

COUNTRY PROGRAMME: CROATIA

This document consists of:

- Country Programme Evaluation Sheet (prepared by the Fund Secretariat)
- Comments and Recommendations of the Fund Secretariat
- Transmittal Letter from the Government of Croatia
- Country Programme Cover Sheet
- Country Programme (Executive Summary)

CROATIA COUNTRY PROGRAMME EVALUATION SHEET

National Ozone Office, State Directorate for Environment

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into force
Vienna Convention (1985)		21/Sep/92	21/Sep/92
Montreal Protocol (1987)		21/Sep/92	21/Sep/92
London Amendment (1990)		15/Oct/93	13/Jan/94
Copenhagen Amendment (1992)			

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1995) 455.7 metric tonnes
239.5 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL	Halon1211	Halon1301	TOTAL	CTC	MCF	TOTAL	Me-Br
ODS	38.0	154.7	1.0			193.7		2.0	2.0		260.0	260.0	
ODP	38.0	154.7	0.8			193.5		20.0	20.0		26.0	26.0	

Distribution of ODP by substance: CFC 80.8% Halon 8.4% CTC and MCF 10.9%

Distribution of ODP by sector:	Aerosol	Foam	Halon	Refrigeration	Solvent	Other
Consumption (ODP tonnes):	9.0	15.0	20.0	169.5	26.0	
Percent of total:	3.8%	6.3%	8.4%	70.8%	10.9%	

Country Programme

Duration of country programme: 9 years (1997-2005)

ODS phase out target: Complete phase out by 2005 except for CFCs needed for refrigeration maintenance

Phase out priority area: Refrigeration, solvent, halon, foam and aerosol sectors

Cost of activities in country programme: \$2,486,000

Strategy:

The Government's strategy is based on assisting industries which have market potential to phase out their consumption of ODS in order to make their products more environmentally acceptable and to improve their competitive position in Western markets. It will develop and establish appropriate laws and regulations, strengthen the responsible ozone unit to enable it to provide users with more technical and commercial information regarding ODS alternatives and markets, establish a monitoring and licensing system, identify and formulate investment projects, organise workshops for industry and service trades; and develop public awareness campaigns.

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

COMMENTS

1. The Country Programme conforms to the format of the approved guidelines. The total ODS consumption in the country is estimated at 239.5 tonnes, mainly CFC-11 and CFC-12. CFCs are used for servicing domestic refrigerators and freezers, commercial refrigerators and mobile air conditioners, in the production of flexible foams and as a propellant for cosmetic and pharmaceutical products. Halon 1301 is used for recharging fixed systems and methyl chloroform as a solvent in the electronic industry.

2. Five investment ODS phase out projects in the aerosol, foam and solvent sectors, a recovery and recycling programme and a training of refrigeration service technicians, a feasibility study for replacing halon-1301 in fixed fire extinguishing systems at an estimated cost of US \$2.3 million, have been included in the country programme. These activities are planned to be implemented in 1997.

Institutional strengthening

3. The Country Programme includes a project proposal for the establishment of the Ozone Office within the State Directorate for Environment (institutional strengthening). The Government of Croatia is requesting financial support for the implementation of this project totaling US \$116,000.

4. Based on the ODS consumption levels in Croatia and their sectoral distribution, analysis of similar projects so far approved by the Executive Committee, current market prices of office equipment and software, the Fund Secretariat recommends a budget of US \$101,200 for a three-year period, with the following break-down:

Capital costs:	US \$8,000
Personnel:	US \$54,000
Operational costs:	US \$30,000
Contingency:	US \$9,200

RECOMMENDATIONS

1. The Fund Secretariat recommends as follows:

2. To approve the Croatia Country Programme. Approval of the Country Programme does not denote approval of the projects identified therein or their funding levels.

3. To request the Government of Croatia to present annually information to the Executive Committee on progress being made in the implementation of the country programme, in accordance with the decision of the Executive Committee on implementation of country programmes (UNEP/OzL.Pro/ExCom/10/40, para 135). Using the approved format, the initial report, covering the period 18 October 1996 to 31 December 1997, should be submitted to the Fund Secretariat no later than 31 March 1998.

4. To approve the amount of US \$101,200 and US \$13,156 support costs for institutional strengthening to be included as an amendment to UNEP's 1996 work programme.

**REPUBLIC OF CROATIA**STATE DIRECTORATE FOR
ENVIRONMENT

10000 Zagreb,

Ulica grada Vukovara 78, Croatia

Phone: 385 1/6118-388, 6133-444, 6111-992

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U N E P	
Rec'd	10 2 JUL 1996
Registry No	_____
To	_____

Zagreb, 29 July 1996

The Chief Officer
Secretariat of the Multilateral Fund
for the Implementation of the Montreal Protocol
1800 McGill College
27th Floor
Montreal, Canada H3A 3J6

Dear Sir,

I have the honour to submit herewith the Country Programme of the Republic of Croatia for the consideration and approval of the Multilateral Fund for the Implementation of the Montreal Protocol.

The Republic of Croatia became, by virtue of succession to the former Socialist Federal Republic of Yugoslavia, a Party to the Montreal Protocol as of 8 October 1991, the date on which the Republic of Croatia assumed for its international obligations and severed all constitutional and legal connections with the predecessor state. It is classified as operating under Paragraph 1 of Article 5 of the Montreal Protocol.

I would like to place on record the appreciation of the Government of Croatia for the assistance extended to it through the UNEP IE OzonAction Programme for the preparation of the Country Programme which started in January 1996. I am pleased to say that the Government is committed to the implementation of actions contained in the Country Programme.

I further assert that it is the Government's intention to monitor compliance with the Protocol. If necessary, further and different action from those specified in the Country Programme will be updated and submitted to the Executive Committee of the Multilateral Fund.

I hope that the Executive Committee will approve the request for assistance made in respect of the following action:

- a) Institutional Strengthening for the Phase out of Ozone Depleting Substances.

Please accept, Sir, the assurances of my highest consideration.

Yours sincerely,


Dr. Ante Kutle
Director

Country Programme Cover Sheet

Country: Croatia

Date received:

Lead National Agency: The State Directorate
for Environment

**Lead Implementation
Agency:** UNEP

**Period Covered by
Country Programme:** 1997-2005

1. PHASE-OUT SCHEDULE

Substances	Current consumption in 1995 (ODP tons)	Planned total consumption till phase-out (ODP tons)	Planned year of phase-out
CFC 11	38	397	2005
CFC 12	154.7	1033	2005
CFC 113	0.8	8	2005
Halon 1301	20	204	2005
MC	26	89	2000
Total	239.5	1731	

2. GOVERNMENT ACTION PLAN

Years	Description of Action	Sector	Intended effect
1997	Public awareness	All	Enhancement
1997-1999	Institutional Strengthening	All	Enhancement, monitoring and coordination
1997	Preparation of licensing system for refrigeration servicing cost	Refrigeration	Reduced coolant use
1997	Organization of workshops on recovery and recycling and good practices	Refrigeration	Improved practices and reduced wastage

3. PROJECT SUMMARY

Year	Project Description	Project Cost	Government Contribution	Funds requested from MF (US\$)	Implementing Agency
1997-2000	Institutional Strengthening	166,000	50,000	116,000	UNEP IE

4. PROJECTS TO BE DEVELOPED

Project	Start year	Implementation period	Estimated phase-out ODP tons	Estimated cost (US\$)
2. Recovery and recycling of refrigerants - training and equipment support	1997	1997-2000	85	210,000
3. Replacement of CFC 11 and 12 in aerosol and pharmaceutical production.	1997	1977	10	550,000
4. Replacement of CFC 11 in pu-foam production	1997	1997-98	15	500,000
5. Replacement of Halon 1301-feasibility study,	1997	1997-2000	20	100,000
6. Replacement of trichloroethane in herbicides and pesticides production	1997	1997	5	500,000
7. Replacement of trichloroethane as cleaning agent in electric switching systems production-feasibility study	1997	1997	25	100,000
8. Retrofitting CFC 12 refrigeration system to HCF 134a	1997	1997	10	360,000
Total			170	2,320,000

5. COSTS

Cost of activities and projects in the Country Programme:	US\$ 166,000
Funds being requested from the Multilateral Fund:	US\$ 116,000
Estimated cost of complete phase-out:	US\$2,486,000
Estimated cost effectiveness:	US\$ 10.4/kg

EXECUTIVE SUMMARY

The purpose of this Country Programme is to identify consumption of Ozone Depleting Substances (ODS) and propose measures and projects for the reduction and the eventual phasing out of ODS in Croatia, in compliance with the Montreal Protocol on Substances that Deplete the Ozone Layer. The document has been prepared by the State Directorate for Environment, with the support provided by the National Team and the Multilateral Fund through the United Nations Environment Programme, Industry and Environment.

The Republic of Croatia became independent in 1991 from the former Yugoslavia. It is a parliamentary, multi-party country with 4.75 million inhabitants. The Gross Domestic Product per capita was estimated to be US\$ 3,524 in 1995.

Due to the Government's two-year old stabilisation policy, Croatia has the lowest inflation in the region and one of the strongest currencies. According to analysts, the economy is set to grow at a rate of about 4-6 % per annum in the near future.

Over the past forty years, a wide range of industries was developed, such as petrochemicals, electrical equipment, pharmaceuticals and shipbuilding. Since independence, the country has experienced certain economic upheavals, partly resulting from structural reforms, partly caused by the war in the region. Today industry accounts for approximately 50 % of the total Gross Domestic Product, agriculture for 8 % and services for the remaining.

Consumption of ODS in 1995 was 239.5 ODP tonnes, amounting to per capita consumption of 0.05 kg. Consumption of HCFCs and Methylbromide was about 21.78 ODP tons and of Carbon Tetrachloride was 177.1 ODP tons.

It has to be emphasised that the situation with regard to ODS consumption in Croatia is very fluid. The actual consumption in 1995 is strikingly less than in 1994 despite the overall economic recovery. Much of the consumption is concentrated in large companies which may, in the worst case, be in considerable economic decline in near future. After independence and during the war much of the local industry has been plagued by energy cuts, shortages of supplies, transportation facilities and disruption of markets. This may involuntarily reduce national ODS consumption, as some of the companies using ODS may go out of business.

However the general trend is towards reduction in ODS consumption due to technological reasons, supported by the trend towards open export and import markets and technological cooperation with the Western European countries. On the other hand, a growing domestic economy, especially growing private consumption, will tend to increase ODS consumption.

The Government of Croatia, as a Party of the Montreal Protocol operating under Article 5 is committed to comply with its international obligations. The Government feels confident that in close cooperation with industries and proper support from the Multilateral Fund the full grace period allowed for Article 5 countries can be shortened by half. The implementation of the proposed projects will phase-out about 37 % of ODS use. The accelerated phase out aims to reduce all uses to nil by the year 2005, with the exception of CFCs needed to maintain and recharge domestic refrigeration equipment up to the end of their life cycle. The complete phase-out scenario assumes that a firm solution to phase-out carbon tetrachloride, used now as feedstock, will be developed by the year 2005 without support from the Multilateral Fund.

Appropriate administrative and monitoring measures are being implemented to control trade in Croatia. The Government is not actively interfering with the market, but is prepared to introduce taxes and duties and also direct bans to counter any adverse developments like dumping of non-appropriate equipment from abroad and irregularities in ODS trade.

The following projects, except the Institutional Strengthening project which is being submitted for financial assistance from the Multilateral Fund, are expected to be formulated and implemented in the future:

Project	Start year	Implementation Period	Estimated cost US\$
1. Institutional Strengthening*	1997	1996-2000	166,000
2. Recovery and recycling of refrigerants - training and equipment support	1997	1997-2000	210,000
3. Replacement of CFC 11 and 12 in aerosol and pharmaceutical production-Pliva Co.	1997	1997	550,000
4. Replacement of CFC 11 in pu-foam production- Oriolik Co.	1997	1997-98	500,000
5. Replacement of Halon 1301-feasibility study-Pastor Co	1997	1997-2000	100,000
6. Replacement of trichloroethane in agrochemical production-Herbos Co.	1997	1997	500,000
7. Replacement of trichloroethane cleaning agent in electric switching systems production- feasibility study- Ericsson Nikola Tesla Co.	1997	1997	100,000
8. Retrofitting CFC 12 refig. system to HFC 134a - INA Polimeri Co. DINA	1997	1997	360,000
Total Incremental Cost			2,520,000

* Funds being requested from the Multilateral Fund amount to US\$ 116,000; Government contribution will be US\$ 50,000

ANNEX I

Project N° 1

Country:	Croatia
Sector Covered:	All
Project Title:	Institutional Strengthening: Establishment of a National Ozone Office
Project Duration:	3 years
Project Impact:	1. Phase-out of ODS in accordance with the Action Plan 2. Strengthening the national institutional structure for coordinating and monitoring the phase-out of ODS
Total Budget:	US\$ 166,000
Implementing Agency:	UNEP
Co-ordinating National Agency:	State Directorate for Environment (SDE)

1. Project Description

The State Directorate for Environment (SDE) is the government body responsible for liaising with national and international bodies on environmental matters. The establishment of the National ODS Phase Out Team in 1995 and the future Ozone Office will provide a dedicated institutional infrastructure for ensuring the effective and timely implementation of actions to phase out the ODS in Croatia as indicated in the Country Programme.

The functions of the Ozone Office will include the following:

- * to act as a Secretariat for the National ODS Phase Out Team
- * to co-ordinate and facilitate activities related to the phase-out of the ODS and monitor progress of implementation
- * to monitor activities related to ODS use and advise and ensure Croatia's compliance with the Montreal Protocol
- * to collect, collate, analyze and disseminate information on ozone issues
- * to organize public awareness campaigns with the support of local NGOs
- * to enhance and facilitate accurate licensing systems and implementation of viable customs codification of ODS
- * to advise the Government and industries through the SDE
- * to facilitate exchange of information with other Parties in the Region, and with other bodies involved in the phase-out
- * to facilitate availability of relevant information, expertise and technology transfer
- * to organize training for customs/statistical officers on familiarization and accurate application of the Harmonized System.
- * to prepare project and other technical documentation related to specific phase-out activities with the support of the Implementing Agencies
- * to prepare regulatory measures, if needed, for the SDE and the Government
- * to participate in relevant meeting on ozone issues
- * to report to the Ozone Secretariat, the Multilateral Fund Secretariat and the concerned Implementing Agencies

2. Purpose of the Project

The main purpose of the project is to enhance the capability of the SDE to monitor and co-ordinate the implementation activities and projects indicated in the Country Programme and to comply with the provisions of the Montreal Protocol. Although the project will not result in direct elimination of ODS it will provide the means for achieving an expeditious and accelerated phase-out process.

3. Project Organization and Management

The Ozone Office will be run by one full-time professional officer and one middle-level supporting staff with computing skills. Two local consultants (a legal officer and an economist) will be engaged from time to time to assist in drafting legal documents envisioned in the Country Programme and to undertake economic analyses if required. The Ozone Office will have access to expertise and other facilities available within the SDE and will receive support from other divisions of the SDE, as and when required.

The professional officer in charge of the office will act as the co-ordinator of the Country Programme activities and report to the Director General of the SDE and to the Head of the Environment Department of the SDE, who is the Chairperson of the National ODS Phase Out Team. He/she will also act as Secretary to the National ODS Phase Out Team, and prepare bi-annual reports on the progress of implementation. The organization of the activities of the office and reporting procedures will follow procedures laid down for UNEP IE sponsored activities

4. Budget

The total budget for this project is US \$166,000. Government contribution to the project will include secretarial assistance, office space, one supporting staff with computing skills, basic furniture etc.

The estimated value of Government contribution is **US \$50,000**.

Funds requested from the Multilateral Fund are as detailed below:

Cost item	1997	1998	1999	Total US\$
Computer and accessories including software and e-mail, photocopier and fax-machine	12000			12000
Staff requirement				
* One professional staff	12000	12000	12000	36000
* Legal consultant	3000	3000	3000	9000
* Economic consultant	5000	5000	5000	15000
Public awareness campaigns	10000	10000	10000	30000
Training of customs/statistical officers	3000	-	3000	6000
Operational costs/maintenance	1000	2000	2000	5000
Local travel	1000	1000	1000	3000
Total	47000	33000	36000	116000