



**United Nations
Environment
Programme**



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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-fifth Meeting
Montreal, 29-31 July 1998

COUNTRY PROGRAMME: YEMEN

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 Yemen
- Country Programme Cover Sheet
- Country Programme (Executive Summary)

YEMEN COUNTRY PROGRAMME EVALUATION SHEET

National Ozone Unit, Environmental Protection Council

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into force
Vienna Convention (1985)		21-Feb-96	21-May-96
Montreal Protocol (1987)		21-Feb-96	21-May-96
London Amendment (1990)			
Copenhagen Amendment (1992)			

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1996) 338.0 metric tonnes
332.1 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL Halon1211	Halon1301	TOTAL	CTC	MCF	TOTAL	Me-Br
ODS		320.0	7.0		5.0	332.0	1.0	1.0		5.0	5.0	
ODP		320.0	5.6		3.0	328.6	3.0	3.0		0.5	0.5	

Distribution of ODP by substance: CFC 98.9% Halon 0.9% CTC and MCF 0.2%

Distribution of ODP by sector:	Aerosol	Foam	Halon	Refrigeration	Solvent	Other
Consumption (ODP tonnes):	0.0	0.0	3.0	323.0	6.1	0.0
Percent of total:			0.9%	97.3%	1.8%	

Country Programme

Duration of country programme: 8 years (1998-2006)

ODS phase out target: Complete phase out by 2010

Phase out priority area: Refrigeration sector

Cost of activities in country programme: \$1,223,500

Strategy:

The Government is committed to a phase out strategy consistent with the country's economic development strategy. The Government's strategy will be to effect a gradual and effective transition and phase-out of ODS, without adversely affecting the country's socio-economic needs in the refrigeration and air-conditioning sub-sectors. Elements of the phase-out strategy include the use of existing legislation and regulations wherever possible for ozone layer protection, reducing dependence on ODS technologies, promoting use of well-trained technicians, and issuance of licensing regulations and establishment of a licensing system.

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 333.5 metric tonnes of CFCs used for servicing refrigeration equipment and MAC units.

2. In 1997, a survey to calculate consumption levels of controlled substances was undertaken by the University of Republic of Yemen. The survey concentrated on interviews with major consumers and importers of controlled substances, and a comprehensive questionnaire. A field study of refrigerators, chillers, air-conditioning units and mobile air conditioning units was also undertaken.

3. There are currently 1.57 million refrigerators in the country which are being serviced by 360 workshops, which are not registered, most being staffed by one or two technicians. The physical conditions and the technical standards of service in many workshops are extremely poor and there are no qualification requirements for service personnel. The survey also showed that new domestic refrigerators and freezers on display in wholesaler and retail outlets use compressors charged with ODS alternatives. It is not, however, easy for the purchaser to know this without inspecting the compressor labels.

4. The country programme includes a request for the amount of US \$30,000 for the preparation of a Refrigerant Management Plan, and a request for the establishment of an Ozone Unit within the Environmental Protection Council (institutional strengthening). The Government of Yemen is requesting a total of US \$140,000 for the implementation of this project. The Fund Secretariat's Comments and Recommendations on these requests are presented under UNEP work programme amendments (UNEP/OzL.Pro/ExCom/25/21).

RECOMMENDATIONS

The Fund Secretariat recommends as follows:

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

2. To request the Government of Yemen 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 1 August 1998 to 31 December 1999, should be submitted to the Fund Secretariat no later than 1 May 2000.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



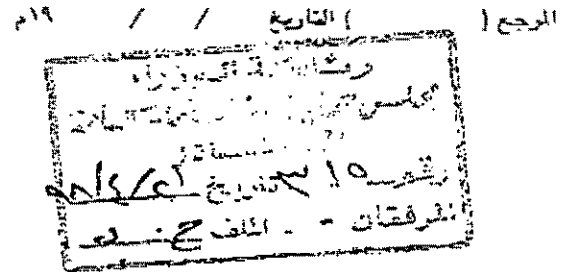
Republic of Yemen Ministers Council

Environment Protection Council

الجمهورية اليمنية
رئاسة مجلس الوزراء
مجلس حماية البيئة

Ref. (021/CP3.4/18) Date 20/ 4 / 1998

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



Dear Sir,

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

The Republic of Yemen adhered to the Protocol on the 6 December 1995 and become a party on 21 February 1996. It is classified as operating under paragraph 1 of Article 5 of the Protocol.

I would like to place on record the appreciation of the Government of Yemen of the assistance extended to it through the UNEP IE Ozone Action Programme for the preparation of the Country Programme which started during November 1993. I am pleased to say that the Government is committed to the implementation of the actions contained in the country programmes.

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

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

- a) Institutional Strengthening.
- b) Refrigeration Management Plan.

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

Yours sincerely,

Mohsen Al Hamdani

Chairman of the EPC



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THE GOVERNMENT OF REPUBLIC OF YEMEN

**COUNTRY PROGRAMME FOR PHASING OUT
OZONE DEPLETING SUBSTANCES
IN YEMEN**

May 1998

COUNTRY PROGRAMME COVER SHEET.

Country **REPUBLIC of YEMEN.**
Date Received **MAY 1998**
Period Covered **1998 to 2006**
Lead Implementing Agencies **UNEP**

1 Phase-out Schedule

Substances	1996 Consumption (ODP tons)	Consumption until phase-out (ODP tons)	Phase-out year
CFC12	320	1807	2010
CFC113	5.6	15.2	2000
CFC115	3	8	2003
Methyl chloroform	0.5	1.0	2000
H-1211	3	6.0	2000
Total	332.1	1838.6	

2 Government Action Plan

Item	Description of Actions	Commencement/Duration
Ozone Office	Create an implementing unit to monitor and control consumption of ODS.	1998
	Manage and control ODS phase-out projects	1998-2001
	Incorporate ODS monitoring within Statistical Office/Customs Department	1998-1999
	Monitor the development and implementation of the Refrigerant Management Plan.	1998-2001
Public awareness	Raise public awareness on ozone layer depletion	1998-2001

Policy	Ban on use of CFCs in new mobile AC systems	1998-2000
	Ban on use of CFCs in new domestic refrigerators	1999-2005
	Ban on use of CFCs in cleaning, sterilization and foam industry	1998-1999
	Ban on use of Halons where alternatives are available	1997-1999

3 Project Summary

Year(s)	type of project	Project cost	Funds requested from MF	Participating Implementing Agencies (if any)
1998-2001	Institutional Strengthening	\$ 151,500	\$120,000	UNEP
1998	Development of Refrigeration Management Plan	\$ 30,000	\$30,000	UNEP

Other Investment projects to be developed, in cooperation with Implementing Agencies and submitted for future funding

4 Costs

Cost of Activities and Projects on Country Programme	US\$ 181,500
Estimated Cost of complete phase out	US\$ 1,200,000
Estimated Cost effectiveness	US\$ 3.6/ODP kg

EXECUTIVE SUMMARY

Background and Current Situation

The Republic of Yemen signed and ratified the Montreal Protocol on 21 February 1995.

The Republic of Yemen is classified as an Article 5 developing country with an annual consumption per capita of 0.027 kg. It therefore qualifies for financial assistance from the Multilateral Fund of the Montreal Protocol.

The total ODS consumption was 332.1 ODP tonnes in 1996, out of which are Annex A Group I substances (CFC 12, CFC 113, CFC 115) constitute 328,6 ODP tonnes (approximately 99%), Annex a Group II constitutes 3 ODP tonnes and Annex B, Group III – 0.5 ODP tonnes.

ODS consumption by substance in 1996

Substance	Consumption (tonnes)	ODP	Consumption in ODP tonnes	Percentages
Annex A, Group I				
CFC-11	0	1.0	0	0
CFC-12	320	1.0	320	96.4%
CFC-113	7	0.8	5.6	1.7%
CFC-115	5	0.6	3.0	0.9%
Subtotal	332.4		328.6	
Annex A, Group II				
Halon 1211	1.0	3.0	3.0	0.9
Subtotal	1		3.0	0.9%
Total Annex A	1		3.0	
Annex B, Group III				
Methyl Chloroform	5.0	0.1	0.5	0.1%
TOTAL CONSUMPTION	338		332.1	100%

Most of the ODS consumption is in the mobile air conditioning and domestic refrigeration sectors.

Implementing the Phase-out

The national strategy for phasing out ODS will concentrate on the service sector. It will operate through voluntary agreements and persuasion. The Government will concentrate its efforts on:

- (a) Encouraging the consumer to replace ODS consuming equipment at the earliest possible opportunity
- (b) Encouraging importers to stop the import of ODS containing equipment.

This will be done through a programme of training and a campaign for increasing awareness.

The National Ozone Unit (NOU) will implement a programme to register users and importers of refrigerants and equipment containing ODS. Good management and housekeeping with reference to the use and handling of ODS will be encouraged to avoid waste and venting to atmosphere. Recycling and reuse will be encouraged by means of appropriate training, so as to minimise future imports of ODS.

The government intends to adopt a strategy which will rapidly reduce the amount of ODS used. It is recognized that this will be a difficult task due to the size of the country with difficult communications in some areas and limited technical understanding of complex issues by part of the population.

The lead agency for the implementation of the programme will be the NOU within the Environmental Protection Unit supported by various concerned Ministries and government departments.

Project Summary Table

PROJECT NAME	TOTAL PROJECT COST IN USD	COST TO THE MF IN USD
1. Institutional Strengthening	151,500	120,000
2. Preparation of Refrigeration Management Plan	30,000	30,000
TOTAL	181,500	150,000

These two projects are expected to identify other projects which will be submitted at a later date and will include Training of trainers in apprentice training schools and technicians and engineers, development of a recycling and recovery programme and Investment projects.

The Government of Republic of Yemen is adopting a phase-out strategy which will lead to a reduction in ODS per capita consumption from 0.027 kg in 1997 to 0.01 kg in 2002. The Government recognizes that necessary financial, technical and technology support for these projects will be required, without which it will not be able to fulfil its Country programme responsibilities effectively and enforce and implement the required plan of action for the phase-out of ODS.