



**United Nations
Environment
Programme**

Distr.
LIMITED



UNEP/OzL.Pro/ExCom/20/50
21 September 1996

ORIGINAL: ENGLISH

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

Twentieth Meeting
Montreal, 16-18 October 1996

COUNTRY PROGRAMME: JAMAICA

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

JAMAICA COUNTRY PROGRAMME EVALUATION SHEET

National Ozone Unit, Natural Resources Conservation Authority

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into force
Vienna Convention (1985)		31/Mar/93	29/Jun/93
Montreal Protocol (1987)		31/Mar/93	29/Jun/93
London Amendment (1990)		31/Mar/93	29/Jun/93
Copenhagen Amendment (1992)			

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1994) 153.4 metric tonnes
149.8 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL	Halon1211	Halon1301	TOTAL	CTC	MCF	TOTAL	Me-Br
ODS	7.1	136.7	1.0		8.6	153.4							3.0
ODP	7.1	136.7	0.8		5.2	149.8							1.8

Distribution of ODP by substance: CFC 100.0% Halon CTC and MCF

Distribution of ODP by sector:	Aerosol	Foam	Halon	Refrigeration	Solvent	Other
Consumption (ODP tonnes):	10.0	71.2		67.8	0.8	
Percent of total:	6.7%	47.5%		45.2%	0.5%	

Country Programme

Duration of country programme: 10 years (1997-2006)

ODS phase out target: 50% reduction by end-1997. Complete phase out by 2006

Phase out priority area: Foam and refrigeration sectors

Cost of activities in country programme: \$1,197,265

Strategy:

The Government of Jamaica is committed to a complete ODS phaseout by 2006. It will encourage specific strategies by each user sector to progressively reduce the need for importation of ODS from year to year until the year 2006. It will establish control measures, financial incentives and import duty concessions.

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 149.75 tonnes, mainly CFCs used for servicing domestic refrigerators and freezers, commercial refrigerators and MAC units, the latter representing 65% of the total amount of CFCs used for servicing refrigeration equipment.

2. Based on information gathered for 1994, about 10 tonnes of CFCs were used as propellant by two aerosol fillers. The largest filler using 9 tonnes, announced that by 1995 it will phase out CFC propellant in its filling operations. The survey identified six plants manufacturing foam products, five of which have already switched to non-ODS technologies. The other enterprise used about 71 tonnes of CFC-11 in 1994, which was imported in previous years, and was planning to switch to butane blowing agent in 1995. The only manufacturer of domestic refrigerators and deep freezers in the country uses glass wool for insulation.

3. The Executive Committee has approved a project related to CFC recovery and recycling and a training programme in good refrigeration practices for service technicians is also included in the Country Programme. The project will lead to the elimination of 17 tonnes of CFCs.

Institutional strengthening

4. The country programme includes a project for the establishment of a National Ozone Unit within the Natural Resources Conservation Authority (institutional strengthening). The Government of Jamaica is requesting financial support for the implementation of this project totaling US \$122,800.

5. The institutional strengthening project has been developed following the approach proposed by the Fund Secretariat for low volume ODS-consuming countries and further elaborated by UNEP, where ODS consumption is mainly for servicing refrigeration and air conditioning equipment (UNEP/OzL.Pro/ExCom/18/9 Annex I). The main responsibilities of the Ozone Unit would include: organizing a training workshop for service technicians, follow-up of the training activities, supervision of the implementation of refrigerant recovery and recycling programme, and facilitation of the government's data reporting obligations under the Montreal Protocol.

6. Based on the ODS consumption levels in Jamaica and their sectoral distribution, the conversion to non CFC technologies by one aerosol filler and one foam producer, analysis of similar projects so far approved by the Executive Committee, and the approved project on refrigerant recovery and recycling and training of refrigeration service technicians, the Fund Secretariat recommends a budget of US \$66,000 for a three-year period, with the following break-down:

Capital costs:	US \$4,000
Personnel:	US \$36,000
Operational costs:	US \$20,000
Contingency:	US \$6,000

RECOMMENDATIONS

1. The Fund Secretariat recommends as follows:
2. To approve the Jamaica 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 Jamaica 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 \$66,000 and US \$8,580 support cost for institutional strengthening to be included as an amendment to UNEP's 1996 work programme.



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DATE 10/10/96 BY 18099260543/18099260543/18099260543

MINISTRY OF ENVIRONMENT AND HOUSING

2 HAGLEY PARK ROAD,

KINGSTON 10,

JAMAICA

September 10, 1996

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

Dear Sir

I have the honour to submit herewith the Country Programme of Jamaica for consideration and approval of the Multilateral Fund for the implementation of the Montreal Protocol.

As you will note in the Country Programme, Jamaica is the largest English-speaking island in the Caribbean. The fact that we enjoy a tropical climate means that we have a great demand for air conditioning and refrigeration and because of our close location to the United States of America, there is consequently a strong American influence in terms of the types of such equipment used in the island.

Jamaica acceded to the Montreal Protocol on March 31, 1993 and became a Party on June 29, 1993. 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 Jamaica for the assistance extended to it through the UNEP IE OzonAction Programme for the preparation of the Country Programme which started in April, 1995. I am pleased to say that the Government is committed to the implementation of the 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 actions 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 for the Institutional Strengthening Project to manage the programme for the phase-out of ozone depleting substances (ODS), and consider providing assistance for the following project proposals:

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- 1) Establishment of a Centralized LPG deodorizing plant to provide HAP and butane for the aerosol and foam industries
- 2) Establishment of a recovery and recycling programme to cover the mobile air conditioning sector
- 3) Training of trainers and refrigeration technicians/service agents
- 4) Conversion of the facilities of the local manufacturer of domestic refrigerators and deep freezers to the manufacturing of ODS-free equipment
- 5) Conversion of CFC-11-based chillers to non-ODS technology
- 6) Inventory of Halon 1301 fire-fighting installations in the country and drawing-up of change-over and stock management plan and, in phase-II, the conversion of these Halon 1301-based fire fighting systems to systems based on non-ODS alternatives.

I should like to point out that for Jamaica to implement the phase-out programme effectively, the Institutional Strengthening Project is essential.

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

Yours sincerely,



Thorant Hardware
Permanent Secretary

cc. Mr. Rajendra M. Shende
UNEP IE
OzonAction Programme Coordinator
Paris, France

COUNTRY PROGRAMME COVER SHEET

Country: Jamaica

Date received

Lead National Agency: NRCA

Lead Implementing
Agency:

UNEP

Period Covered by
Country Programme: 1996-2006

1. Phase Out Schedule

Substances Annex A Group I	Current Consumption (tonnes x ODP) in 1994	Planned Total Consumption Till Phase- out (tonnes x ODP)	Planned Year Phase-out
CFC-11	7.11	13	2006
CFC-12	136.67	661.4	2006
CFC-113	0.8	3.9	2005
CFC-115	5.17	6.9	2006
Total:	149.75	685.2	

2. Government Action Plan

Sector	Action	Timing	Intended effect
All	Institutional strengthening by establishing a NOU	Jan '97	Build capability to implement Country Program and phase-out
	Publicity and awareness campaigns	Mar '97	Sensitizing public to ozone related issues
Aerosols	Regulation requiring labeling of products as 'ozone-friendly'	Jan '97	Identification of ODS based products and prevention of consumption
	Ban on use of CFCs in aerosols	Nov '96	Elimination of use of CFCs in domestic aerosol filling
Refrigeration and Air-conditioning	Ban on importation of CFC based refrigerators	Jan '97	Reduction in future recharge requirements of CFCs in this sector
	Reduction in duties on low ODP blends/drop in substitutes	Jan '97	Encourage retrofits of commercial and industrial equipment
	Reduction in duties on kits for retrofitting MACs to non ODSs	Jan '97	Encourage faster switch over to ODS free air-conditioning systems in existing /new used cars
	Implement recovery & recycling and training programs	Jan '97	Saving in ODS consumption through better practices by refrigeration and service agents
Fire fighting	Initiate a survey to assess the inventory of Halon based fire-fighting systems	Jan '97	Development of plan to convert systems to Halon alternatives and reduce emissions
	Development of a Halon stock management plan	March '97	Conservation of Halon to maximize useful life of systems
MACs	Ban on the use of CFCs in mobile air-conditioners	Nov '96	Elimination of CFC use in vehicles

3. Projects already approved by the Multilateral Fund

Type of Project	Funds approved (US\$)	Implementing Agency	ODS to be phased out
Establishment of a recovery and recycling program	172,465	UNDP	17
Assistance for project preparation	30,000	UNDP	-
Formulation of Country Programme	40,000	UNEP	-
TOTAL	242,465		

4. Projects being submitted for approval and funding

Year	Type of Project	Project cost US\$	Fund requested from MF (US\$)	Government contribution (US\$)	Implementing Agency
1997-2000	Institutional Strengthening	159,800	122,800	37,000	UNEP

5. Potential projects to be formulated (only indicative)

Type of project	Estimated cost	Funds to be requested from MF	Government contribution
Establishment of a centralized LPG deodorizing plant to provide HAP and butane for the aerosol and foam industry	to be estimated	-	to be estimated
Retroactive financing for West Indies Synthetics which converted to butane in 1995	to be estimated	-	to be estimated
Additional Training programs for Trainers and Refrigeration technicians/service agents	to be estimated	-	to be estimated
Project to convert facilities of domestic refrigerators and deep freezers to manufacture ODS free equipment	22,000	to be estimated	to be estimated
Conversion of CFC-11 based chillers with non-ODS technology	to be estimated	to be estimated	to be estimated
Project to inventorise Halon 1301 based fire fighting installation	to be estimated	to be estimated	to be estimated
Others*	440,000		440,000
Total	462,000		

6. Costs

Cost of activities and projects in Country Programme:	US\$ 159,800
Estimated cost of complete phase out:	US\$ 864,265
Multilateral Fund contribution sought through this Country Programme:	US\$ 122,800
Estimated cost effectiveness of complete phase-out:	US\$ 5.8/kg

EXECUTIVE SUMMARY

Jamaica is an island country located in the north western part of the Caribbean with an area of 10,940 square kilometers and a population of 2.5 million. Jamaica acceded to the Montreal Protocol in March 1993 and qualifies as Article 5 country.

In order to comply with the provisions of the Protocol, the Government of Jamaica, as a first step has formulated a Country Programme with the assistance of UNEP with financial assistance from the Multilateral Fund.

The Country Programme provides data on consumption and usage of ODS in Jamaica and expresses the commitment of the Government to phase out use of ODS in terms of a defined strategy, actions to be taken by Government and Industry and projects.

There is no production of ODS in Jamaica and all requirements are met through imports. The total consumption of ODS by end-use in 1994 was 149.75 ODP tonnes. The population in the same year was estimated at 2,505,200, resulting in a per capita consumption of 0.059 kg. Table 1 gives consumption of ODS for 1994.

TABLE 1: ODS Consumption in 1994

Substance	Imports* (ODS MT)	Consumption* (ODS MT)	ODP	Consumption (ODP tons)
Annex A, Group I				
CFC-11	7.11	7.11	1.0	7.11
CFC-12	136.67	136.67	1.0	136.67
CFC-113	1.00	1.00	0.8	0.8
CFC-115**	8.62	8.62	0.6	5.17
TOTAL	153.4	153.4	-	149.75

*Source : Import statistics from Statistical Institute of Jamaica.

** CFC-115 is a part of R-502 used.

The Government acceded to the Montreal Protocol in 1993 and has nominated the Natural Resources Conservation Authority (NRCA), a key institution under the Ministry of Environment and Housing to co-ordinate activities relating to phase out including preparation of the Country Programme.

The Government has declared its intention to totally phase out ODS by 2006, four years ahead of the schedule required under the Protocol. It plans to manage, coordinate and monitor the implementation of phase-out activities through the National Ozone Unit

ANNEXURE 1

PROJECT N° 1

INSTITUTIONAL STRENGTHENING

Project Title :	Institutional strengthening through creation of a National Ozone Unit.
Sectors covered :	All
ODS consumption :	N.A.
Project Duration :	3 years
Project Impact:	Strengthening the national institutional structure for coordinating and monitoring the phase-out of ODS and facilitating the expeditious phase-out of ODS in accordance to the Government Action Plan
Project Budget:	US \$ 159,800
Implementing Agency :	UNEP
National Coordinating Agency :	Natural Resources Conservation Authority (NRCA)

Project Summary

The NRCA has been responsible for the formulation of the Country Programme of Jamaica. The Institutional Strengthening project will enable the establishment of the National Ozone Unit (NOU) within the NRCA, which will monitor and coordinate the Country Program implementation.

Project Description

The NOU will be established within the NRCA and will be headed by a Program Director and supported by a Research Assistant and a secretary. The Program Director will work under the overall administrative supervision of the Executive Director of the NRCA and the Montreal Protocol focal point.

The NOU will, inter-alia, undertake the following activities.

1. To provide information on the Montreal Protocol, phase-out schedules, regulations and general information to enable Jamaica to achieve its goals as outlined in the Country Program.
2. To conduct research, to provide the public with information on new developments under the Montreal Protocol as well as alternatives to ODS substances.
3. To monitor the implementation of the Country Program activities.
4. To coordinate the phase-out activities, including formulation and implementation of projects in training, Recovery and Recycling and other numerous investment projects.
5. Assist in the implementation and monitoring of specific projects under the Country Program and prepare reports as required to the implementing / funding agencies.
6. To submit annual reports on the ODS consumption to the Ozone Secretariat of UNEP, as per the requirements of the Article 7 of the Montreal Protocol.
7. To submit annual reports on progress of implementation of Country Programme to the Multilateral Fund Secretariat, as per decision of the 10th meeting of the Executive Committee of the Multilateral Fund.
8. To submit project related reports to UNEP, as per the requirements of the project document.
9. To liaise with industry, stakeholders, Ministers and government agencies as necessary and assist in the development of projects for submission for funding to international agencies.

10. To develop public and sector education programs in conjunction with the Public Education, Information and Outreach Branch of the NRCA.

11. Conduct surveys to access information on the use of ODS and alternatives.

Project Time Frame

Technically the project would extend till complete phase out is achieved in Jamaica; however it is assumed that the core activities will take place over the next 2 years.

Incremental Costs

The total budget for this project is US \$ 159,800

The NOU will be established within the premises of the NRCA with office space and some amenities provided. Government contribution to the project will include secretarial assistance, salary of the Research Assistant, office space and supplies etc.

The estimated value of Government contribution is US \$ 37,000.

Funds requested from the Multilateral Fund are as detailed below:

Budget for Institutional Strengthening Project (US\$)				
Item	1997	1998	1999	Total
Personnel Costs				
Program Director (Qualification MSc.Chemistry+ Management/ experience)	15,000	15,000	15,000	45,000
Sub Total	15,000	15,000	15,000	45,000
Infrastructure				
Laser Printer	2000			2000
Fax machine	2000			2000
Sub Total	4,000			4,000
Operating Costs				
Meetings and seminars	10,000	15,000	5,000	30,000
Survey/data collection costs**	8,900	8,000	-	16,900
Public Awareness***	8,900	8,000	-	16,900
Sub Total	27,800	31,000	5,000	63,800
TOTAL	46,800	46,000	20,000	112,800
Regional Support	4,000	3,000	3,000	10,000
GRAND TOTAL	50,800	49,000	23,000	122,800

* Meetings and seminars include expenses on lectures and seminars for Bureau of Standards, Customs, Car dealers and other agencies.

** Survey/ data collection costs include costs of survey to ascertain Halon Inventory and other surveys.

***Includes costs of sponsoring regular newspaper feature on Ozone Depletion