



**United Nations
Environment
Programme**



Distr.
Limited

UNEP/OzL.Pro/ExCom/29/53
29 October 1999

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-ninth Meeting
Beijing, 24-26 November 1999

COUNTRY PROGRAMME: MADAGASCAR

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

MADAGASCAR COUNTRY PROGRAMME EVALUATION SHEET

Ozone Office, Ministry of Energy and Environment

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into force
Vienna Convention (1985)		07-Nov-96	05-Feb-97
Montreal Protocol (1987)		07-Nov-96	05-Feb-97
London Amendment (1990)			
Copenhagen Amendment (1992)			

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1997) 24.9 metric tonnes
23.6 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL	Halon121	Halon130	TOTAL	CTC	MCF	TOTAL	MB
ODS	0.9	20.7			3.3	24.9							
ODP	0.9	20.7			2.0	23.6							

0.2 of CFC-13 are also consumed

Distribution of ODP by substance: **CFC** 99.9% **Halon** **CTC and MCF** **MB**

Distribution of ODP by sector: **Aerosol** **Foam** **Halon** **Refrigeration** **Solvent** **Other** **MB**
Consumption (ODP tonnes): 0.0 0.0 0.0 23.6 0.0 0.0 0.0
Percent of total: 100.0%

Country Programme

Duration of country programme: 10 years (2000-2010)

ODS phase out target: 50% reduction in the consumption of CFCs by 2005;
complete phase out by 2010

Phase out priority area: Refrigeration servicing sector

Cost of activities in country programme: \$386,240

Strategy:

The major actions provided for by the action plan includes establishment of institutional and regulatory frameworks on consumption and import of controlled substances, improvement of knowledge among the refrigeration service technicians and public awareness programmes on issues related to the ozone layer.

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT**COMMENTS**

1. The total ODS consumption in the country in 1997 was estimated at 24 ODP tonnes, mainly CFC-12 used for servicing refrigeration equipment. The annual calculated level of Annex A Substances consumption for the period 1995-1997, the baseline for determination of Madagascar's compliance with the Montreal Protocol, is 32.6 tonnes. ODS consumption data collected during the preparation of the country programme has been forwarded to the Ozone Secretariat.
2. Refrigeration equipment comprises over 60 thousand domestic refrigerators and freezers, which are serviced once every five years; fisheries and tourism are the main economic activities where ODS is consumed. The refrigeration service consists of 500 technicians with basic knowledge acquired in the field.
3. Since 1997, methyl bromide is not any longer used as a fumigant and has been replaced by phosphine. However, in order to avoid any recurring consumption in the future, the Government is proposing to initiate an awareness programme among potential users.
4. Madagascar has not yet ratified the London, Copenhagen and Montreal amendments to the Montreal Protocol. The country programme states that ratification of the London and Copenhagen amendments are under consideration by the Government and will be ratified not later than 9 months after approval of the country programme by the Executive Committee.
5. The country programme includes a project for the establishment of an Ozone Office within the Ministry of Energy and Environment (institutional strengthening). The Government of Madagascar is requesting a total of US \$79,860 for the implementation of this project. The Fund Secretariat's comments and recommendations on this request are presented under UNEP work programme amendments (UNEP/OzL.Pro/ExCom/29/21).
6. The country programme also includes a refrigerant management plan. The Government of Madagascar is requesting a total of US \$162,500 for the implementation of this project. The Fund Secretariat's comments and recommendations on this request are presented under document UNEP/OzL.Pro/ExCom/29/19.
7. The Government of Madagascar is requesting assistance for undertaken the following activities: (i) US \$25,000 for the development of an awareness programme among potential users of methyl bromide; and (ii) US \$30,000 for determining the needs for retrofitting of commercial and industrial refrigeration equipment. The Fund Secretariat's comments and recommendations on these request are presented under document UNEP/OzL.Pro/ExCom/29/19.

RECOMMENDATIONS

The Fund Secretariat recommends as follows:

1. To approve the Madagascar 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 Madagascar 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 December 1999 to 31 December 2000, should be submitted to the Fund Secretariat no later than 1 May 2001.

COUNTRY PROGRAMME COVER SHEET

COUNTRY	REPUBLIC OF MADAGASCAR
NATIONAL EXECUTING AGENCY	MINISTRY OF ENVIRONMENT
IMPLEMENTING AGENCY	AGENCE FRANÇAISE DE DÉVELOPPEMENT

PHASE OUT SCHEDULE

SUBSTANCE	CURRENT CONSUMPTION (ODP Tonnes) year 1997	PLANNED TOTAL CONSUMPTION TILL PHASE OUT ODP TONNES		PLANNED YEAR OF PHASE OUT
		ARTICLE 5 SCHEDULE		
8. Annex a group i				
CFC 11	0.9	5.5	0	2010
CFC 12	20.7	117.5	0	2010
CFC 115	2	20.3	0	2010
SUB-TOTAL	23.6	143.3	0	
ANNEX A GROUP II				
CFC 13	0.2	1.2	0	2010
TOTAL	23.8	144.5	0	

Action Plan

Duration	Sector	description	Expected results	Cost ¹ (US \$)
1. Institutional				
2000-2002	All	Ozone Office	Institutional support of the relevant ministry	65 000²
	Refrigerant Management Plan	Implementation of Refrigerant Management Plan	To tackle in global manner the phase out of CFC used in refrigeration and a/c – reduction of 100% en 8 years	
2000	Set up of legislation and measures of control	Set up of means to control ODS imports	<ul style="list-style-type: none"> - Control of ODS imports, - To make easier imports of ODS substitutes, - To make the recovery and recycling network viable 	Included in ozone office project activities
2000	Training of trainers and refrigeration technicians	To train local trainers, which will train technicians in charge of reparation and maintenance of refrigeration and a/c equipment	<ul style="list-style-type: none"> - To reduce consumption of CFC when equipment are maintained/repared, - To make easier the integration of these technicians in the R&R network, 	48 310
2001	Training of personal in charge of control and monitoring of imports of ODS	Training of customs officers and personal involved in control and monitoring of ODS imports	This training is important in order to put in place the legislation and control measures.	27 300

¹ Including 5% of AFD Agency fees

² subject to finalization of discussion between Secretariat and UNEP TIE. The cost does not include UNEP TIE fees

2001	Set up of national recovery and recycling network.		Reduction of CFC consumption by recovery and recycling activities.	86 835
2000-2001	Project preparation for reduction of CFC consumed in commercial and industrial refrigeration sub-sector	According to the decision 28/43 of the Executive Committee, this project aims to prepare retrofitting/drop in activities of equipment of commercial and industrial refrigeration equipment.	Phase out of CFC the commercial and industrial refrigeration sub-sector.	Submission differed to later stage
	RMP Sub-total			162 445
	RMP Sub-total			162 445
2. Agriculture				
2000	Project preparation for methyl bromide phase out	As per the recommendations of the Executive Committee contained in the guidelines of the preparation of projects in methyl bromide sector, this project aims to sensibilize and awareness the potential users and users of methyl bromide	Technical assistance to achieve the following goals: <ul style="list-style-type: none"> - phase out of the existing consumption of methyl bromide, - to avoid future use/increase of methyl bromide consumption 	Submission differed to later stage
3. Industry	Foam	Awareness of industries to avoid use of CFC in foam production.		Bureau Ozone
Total				227 445

Project summary

Project priority	numbered by	Project title	sector	Year beginning	of	Implementing Agency	Cost (US \$)
1		I.S.³	All	2000		UNEP TIE	65 000
2		Refrigerant Management Plan⁴	Refrigeration	2000		France	
2.1.		Training of trainers and refrigeration technicians	Refrigeration	2000		France	48 310
2.2.		Training of personal in charge of control and monitoring of imports of ODS	Refrigeration	2001		France	27 300
2.3.		Set up of national recovery and recycling network.	Refrigeration	2001		France	86 835
2.4.		Project preparation for reduction of CFC consumed in commercial and industrial refrigeration sub-sector	Refrigeration	2000-2001		France en collaboration avec l'ONUDI	differed
Total RMP							162 445
3		Project preparation for methyl bromide phase out	methyl bromide	2000		France en collaboration avec PNUD	differed
Total							227 445

³ see note 2

⁴ see note 1

Executive Summary

The Republic of Madagascar is an island of Indian Ocean, near Mozambique, from which it is separated by the Mozambique Channel. Madagascar has an area of 587 000 km² and has 12.6 millions of inhabitants. 76% and 24% of the population is respectively rural and urban.

In 1997, year of reference of the Country Programme, the population is estimated to 13,8 millions.

Antananarivo is the capital of the country and official languages are Malgache and French.

Agriculture, fishing and aquaculture are the main activities. Tourism is weakly developed.

In 1997, the GDP per capita was 256,41 US\$.

Madagascar became Party to the Vienna Convention in 11 January 1994 and to the Montreal Protocol in 02 May 1996. The law of ratification of the above two enacted by the Parliament in November.

A Commission from different ministries, called National Ozone Team was constituted in order to formulate the Country Programme (Act n° 1456/98/MINEV).

The Government approved the Country Programme and the activities included.

Madagascar does not produce nor export ODS.

In 1997, the consumption of ODS of Annex A et B was 23.8 ODP tonnes, which gave 0.002 kg per capita.

The Ozone Depleting Substances (ODS) imported are CFC 11, CFC 12, CFC 13 and CFC 115 (in mixture of R 502). Low volume of CFC 113 et and carbon tetrachloride were also identified as imported.

Analysis by substance showed that CFC 12 represents 87 % of consumption of Annex A substances.

Analysis per sector showed that refrigeration represents about 100 % of the total.

Although the survey was not focused on that substance, a consumption of 1 987 kg PAO of methyl bromide was identified during the survey.

It is expected that the consumption will be 44.9 ODP tonnes in year 2010.

The formulation of the Country Programme started in mid-1996 and ended in August 1999. The survey was carried out between, January 1997 and November 1997.

Phase out implementation

The following pages present the Action Plan and the Projects summary.

5 projects are submitted for approval and funding. Except the Institutional Strengthening project which will be implemented by UNEP TIE, all the projects will be implemented by France.

2 projects are differed to later stage, when the Ozone Office will be in place and fully in function.