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执行蒙特利尔议定书
多边基金执行委员会
第五十四次会议
2008 年 4 月 7 日至 11 日，蒙特利尔

国家方案：厄立特里亚

本文件由以下几部分组成：

- 国家方案评价表（由基金秘书处编制）
- 基金秘书处的评论和建议
- 厄立特里亚政府的送文函
- 国家方案封面
- 国家方案（执行摘要）

厄立特里亚国家方案评价表

环境部国家臭氧股

《维也纳公约》和《蒙特利尔议定书》的批准情况

签署	批准	生效
《维也纳公约》（1985年）	2005年3月10日	2005年6月8日
《蒙特利尔议定书》（1987年）	2005年3月10日	2005年6月8日
《伦敦修正案》（1990年）	2005年7月5日	2005年10月3日
《哥本哈根修正案》	2005年7月5日	2005年10月3日
《蒙特利尔修正案》（1997年）	2005年7月5日	2005年10月3日
《北京修正案》（1999年）	2005年7月5日	2005年10月3日

受控物质的生产： 未生产受控物质

受控物质的消费： **(2006)** 4.6 公吨

（氟氯烃除外） 4.2 加权吨（ODP）

（吨）	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	总计	哈龙121	哈龙130	总计	四氯化碳	MCF	甲基溴
ODS		4.6				4.6						
ODP		4.2				4.2						

按物质分列的消耗臭氧潜能值分配： **氟氯化碳** 100% **四氯化碳**

按行业分列的消耗臭氧潜能值分配：	**气雾剂**	**泡沫塑料**	**哈龙**	**制冷**	**溶剂**	**甲基溴**
消费量（ODP吨）：				4.2		
占总额的百分比：				100.0%		

《蒙特里尔议定书》（ODP吨）	**氟氯化碳**	**哈龙**	**四氯化碳**	**甲基溴**
基准消费量	41.1	2.3		0.5
2007年许可消费量	6.2	1.2（2005年）		0.4

资料来源：国家方案（2008年）

国家方案

国家方案期限： 两年（2008-2010年）

消耗臭氧层物质淘汰目标： 2009年年底前全部淘汰

淘汰的优先领域： 制冷维修行业

国家活动费用 345,000美元

战略：

厄立特里亚政府承诺通过政府政策及投资和非投资活动相结合的方式淘汰消耗臭氧层物质的消费。《行动计划》的组成包括政府采取措施有效管制和监测消耗臭氧层物质的使用以及在消耗臭氧层物质终端用户行业内执行一系列拟议的项目，其中一些项目可视为是执行淘汰日程表的先决条件。

基金秘书处的评论和建议

说明

1. 根据最近为厄立特里亚国家方案和最终淘汰管理计划进行的调查，氟氯化碳总消费量估计为 4.2 ODP 吨，用于维修制冷系统。厄立特里亚的氟氯化碳的基准消费量为 41.1 ODP 吨。

2. 厄立特里亚是东部和南部非洲共同市场（东南非共同市场）的成员国。该共同市场是一个独立的联盟，成立于 1994 年，拥有 20 个东部非洲和南部非洲国家，致力于促进经济繁荣和区域一体化。东南非共同市场是协调其成员国消耗臭氧层物质的法规的重要论坛。厄立特里亚政府已经核可东南非共同市场在 2007 年通过的次区域消耗臭氧层物质协调法规，因此，完全符合建立许可证制度的规定。厄立特里亚政府预备根据提交执行委员会第五十四次会议的最终淘汰管理计划的执行有效落实国内消耗臭氧层物质的法规(UNEP/OzL.Pro/ExCom/54/33)。

3. 厄立特里亚政府已在环境部内设立了国家消耗臭氧层物质委员会。该委员会作为环境部处理所有关于消耗臭氧层物质问题的咨询机构，并负责就政策需求、立法、行动方案、研究、体制能力建设和提高认识等问题提供咨询意见。

4. 在环境规划署协助下编制的国家方案概要说明了最终淘汰管理计划的目标和组成部分，其中包括培训海关官员和制冷维修技术员、设立技术援助方案、提供必要的工具和设备给制冷维修车间以便回收和再循环制冷剂以及改装制冷系统成为使用不含氟氯化碳制冷剂的系统。

秘书处的建议

5. 根据厄立特里亚的最终淘汰管理计划，基金秘书处向环境规划署和工发组织提出了一些与该国目前遵守《蒙特利尔议定书》的状况有关的问题：（一）厄立特里亚被认定没有遵守《议定书》管制规定，因为它在 2005 年报告的氟氯化碳消费量为 30.2 ODP 吨，超过该年的允许消费量上限（第 XVIII/24 号决定）；和（二）厄立特里亚至今尚未建立消耗臭氧层物质的进出口许可证机制，因此，它没有遵守《议定书》第 4 条 B 款的规定（第 XIX/26 号决定）；这些问题均已得到这两个机构完善的处理。

6. 在国家方案和最终淘汰管理计划之外，厄立特里亚政府还向执行委员会第五十四次会议提出了设立臭氧机构的请求。基金秘书处提出的评论和建议载于 UNEP/OzL.Pro/ExCom/54/18 号文件。

建议

7. 基金秘书处建议批准厄立特里亚的国家方案，但指出批准国家方案并不表示批准该方案内所列的项目及其供资数额。批准厄立特里亚的国家方案不应影响到《蒙特利尔议定书》处理不遵守情事的机制的运作。

8. 基金秘书处还建议，应请厄立特里亚政府依照执行委员会关于执行国家方案的决定（UNEP/OzL.Pro/ExCom/10/40，第 135 段），每年向执行委员会提供资料，说明执行国家方案的进展情况。利用核准的格式编写的最初报告所涉期间应为 2008 年 1 月 1 日至 2008 年 12 月 31 日，该报告提交基金秘书处的日期不得迟于 2009 年 5 月 1 日。

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دولة إرتريا
وزارة الاراضي والمياه والبيئة
قسم البيئة

The State Of Eritrea
Ministry of Land, Water & Environment
Department of Environment

ዕለት 10-03-2008
Date

التاريخ

ቁ.መ. DoE/01/46/08
Ref. No.

رقم السجل

Ms. Maria Nolan,
Chief Officer
Multilateral Fund Secretariat
1800 Megill College Ave
27th Floor, Montreal Trust Building
Montreal, Quebec H3A3L6
CANADA

Fax: (1514) 2820068

Dear Madam,

SUBMISSION OF THE ERITREA COUNTRY PROGRAMME/ NATIONAL PHASE OUT PLAN (CP/NPP) PROJECT FOR CONSIDERATION DURING 54TH EXECUTIVE COMMITTEE MEETING

I refer to the project that was approved during the 47th Executive Committee Meeting for the preparation of country programme for Eritrea. I am pleased to report that Eritrea, with technical assistance from United Nations Environment Programme (UNEP) and United Nations Industrial Development Organisation (UNIDO) successfully finalised the preparation of the country programme/national phase out plan (CP/NPP) for the elimination of CFCs in Eritrea by 2010 in accordance with the requirements of the Montreal Protocol.

I hereby submit the CP/NPP through UNEP, which is our Lead Implementing Agency, to the 54th Executive Committee Meeting of the

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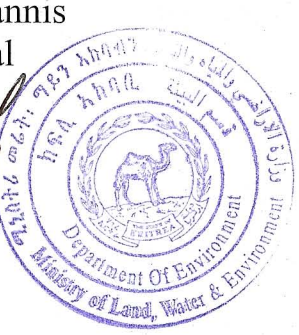
Asmara, Eritrea

Multilateral Fund for consideration and approval. Approval of this project will assist Eritrea achieve the 2010 target of total phase-out of CFCs as per the requirement of the Montreal Protocol and that Eritrea will not request for more funds for phasing out CFCs.

Please accept the assurances of my highest consideration

Yours Sincerely

Mogos WoldeYohannis
Director General



COUNTRY PROGRAMME COVER SHEET

COUNTRY: **ERITREA**
LEAD NATIONAL AGENCY: **DEPARTMENT OF ENVIRONMENT (DoE) (UNDER MINISTRY OF LAND, WATER AND ENVIRONMENT**
PERIOD COVERED BY COUNTRY PROGRAMME: **2008 - 2010**
LEAD IMPLEMENTING AGENCY: **UNEP**

1. PHASE OUT SCHEDULE

SUBSTANCE	CURRENT CONSUMPTION (ODP TONNES) 2006	PLANNED YEAR OF PHASE-OUT
CFC-11	0	2010
CFC-12	3.60	2010
CFC-113	0	2010
CFC-115	0.6	2010
CTC	0	2010
METHYL CHLOROFORM[1)]	0	2015
HALONS	0	2007
METHYL BROMIDE	0	2015
TOTAL	4.2	

2. GOVERNMENT ACTION PLAN

YEAR	DESCRIPTION OF ACTION	INTENDED EFFECT	ESTIMATED COST (US$)
ALL SECTORS			
2005	Establishment of Ozone Office (Unit)	Provide monitoring and co-ordination	**40,000**
	Establishment of National Committee on ODS		**80,000**
2008-2009	Public Awareness Campaign	Create Awareness	
	Strengthening Institutional Framework	Provide monitoring and co-ordination	
2008-2009	Establishment of monitoring system for ODS imports, uses /Introduction of import licensing system	Ensure compliance with Protocol	
	Enactment of regulations and provision of incentives and penalties	To ensure compliance with Action Plan	
REFRIGERATION SECTOR			
2008 2010	Establishment of National Committee on Improved Refrigeration Practices (NCIRP)	To supervise activities within the refrigeration sector To ensure improved servicing To guarantee availability of nitrogen to ensure reduction in the use of CFCs To ensure a reduction in the use of CFCs To supervise activities within the refrigeration sector To reduce consumption of CFCs during servicing	**245,000**
	Certification of refrigeration engineers and technicians		
2007	Improvement in the supply of nitrogen for servicing of refrigeration equipment		
2008-2010	Introduction of Inspection scheme for imported refrigerators		
	Establishment of National Refrigeration Demonstration Centre; Implementation of Train the Trainer Programme;		
	Implementation of Improved Servicing and Maintenance Practices/ Retrofit and R&R Programme		
	Customs Training Programme and enforcement of newly approved ODS Regulations	Strengthen the capacity of Customs officers to effectively regulate importation of ODS & ensure compliance	**60,000**
	Monitoring of all activities within the RMP	Ensure Compliance	**40,000**

3. SUMMARY OF PROPOSED PROJECTS

YEAR	Project Type & Description	Project Cost US$ (2006)	Implementing Agency	ODP Tonnes to be phased-out
2008-2009	INSTITUTIONAL STREGTHENING PROJECT: Establishment of monitoring and co-ordination mechanism for implementing programme to phase-out of ODS	80,000	UNEP	Non direct phase-out
2008-2010	Training of trainers & improved servicing and maintenance within refrigeration sector and retrofit and R&R programme	245,000	UNEP & UNIDO	4.2
	Customs training programme and enforcement of newly approved ODS regulations	60,000	UNEP	Non direct phase-out
	Monitoring of activities within TPMP	40,000	UNEP	

EXECUTIVE SUMMARY

1. Background

The Montreal Protocol on Substances that Deplete the Ozone Layer is an international agreement that aims at reducing and eventually phasing-out the production and use of chlorofluorocarbons and halons which are known to damage the ozone layer. The Protocol came into force on January 1, 1989 and has since been ratified by 189 countries as of February, 2007.

The Protocol, since its inception, has gone through four Amendments that aim at accelerating the phase-out of these Ozone Depleting Substances (ODS). The Amendments include the London Amendment of 1990, Copenhagen Amendment of 1992, Montreal Amendment of 1997 and Beijing Amendment of 2000.

Eritrea became a party to the Vienna Convention and the Montreal Protocol in March, 2005 as well as the London, Copenhagen, Montreal and Beijing Amendments in July 2005. The consumption of ODS for 2006 is 4.2 ODP tons. The baseline consumption communicated to the ozone Secretariat was estimated at 42 ODP. This implies a per capita consumption of ODS of 0.015 kg in 2005. This means that Eritrea falls under the category of Article 5 Paragraph 1 countries, and thus qualifies for a ten year delay in the phase out of ODS. It is also eligible to receive technical and financial assistance from the Multilateral Fund.

Use of ODS in Eritrea

There is no production of ODS in Eritrea. These substances are all imported by a limited number of local distributors and directly by the ODS-using companies. The total import of CFCs has been estimated at approximately 32 metric tons (MT) in 2005 of which CFC-12 and CFC-11 account for almost 97%. Approximately 1.0 metric tons of CFC-115 is used in the composite refrigerant CFC-502 consisting of 49% HCFC-22 and 51% CFC-115. There were no records of any importation of carbon tetrachloride (CTC), methyl chloroform (MCF), other CFCs. The consumption of HCFC-22 and hallon1211 was 31 metric tons and 0.1 of a metric ton respectively. A review of the data in 2007 gave an estimate the current most accurate consumption of ODS in 2006 as 4.2 ODP tons.

Almost all consumption of controlled ODS is used for servicing of existing refrigeration equipment and to a minor extent also for installation of new equipment.

No manufacturing of domestic refrigerators and other ODS-dependant equipment takes place in Eritrea. Manufacturing of flexible foam for mattresses uses CO_2/water as the blowing agent.

Methodology of the Country Programme Preparation

The methodology for the preparation of the Country Programme involved two missions to Eritrea in May and August, 2006 with the purpose of collecting demand figures and other relevant data, discussing institutional and policy framework with industry leaders and government officials, and identifying project activities which may qualify for support from the Multilateral Fund. These data were revisited for 2006 with accurate data collection procedures. Costs estimates were then made for the different actions and projects based on consultations with specialists both in Eritrea and abroad in the fields of refrigeration.

Critical Assumptions

In order to estimate the total incremental costs of ODS phase-out in Eritrea, the most plausible substitution techniques were identified and costed based on up to date information contained in the UNEP Technical Options and the Refrigeration, Air Conditioning and Heat Pumps, Technical Options Committee Reports.

The incremental costs estimated for Eritrea comprise three elements:

- user costs, i.e. costs incurred for ODS using products including incremental capital and operational costs, costs of re-training of personnel in connection with adaptation to ODS free technology, and the costs of technical assistance and support;

- consumer costs, i.e. incremental costs arising from forced replacement of domestic refrigerators and extra costs of purchasing CFC free refrigerators;

- government costs for institutional strengthening to ensure effective implementation of the Protocol.

The analysis in this report is based on the assumption that ODS continue to be available in sufficient quantities to meet demand up to the year 2010 at current prices,

2. Phase-out Scenario

Since Eritrea has about four years to phase out her ODS, only one phase-out scenario (allowable phase-out scenario) is selected and analysed for Eritrea. This allowable phase-out scenario is characterised by the full utilisation of the 10-year delay provision in the Protocol. It postpones ODS phase-out until the latest possible date while keeping the country within the limits of the Montreal Protocol.

The various measures outlined in the Country Programme like better servicing and maintenance procedures can be achieved without increasing the cost of the phase-out significantly. These issues show that under the current situation, the allowable phase-out scenario is the most likely and desirable for Eritrea.

Recommended Phase-out Strategy

This strategy adopted for Eritrea proposes 85% reduction of ODS consumption by 2007 and 100% reduction by 2010 using 1995, 1996 and 1997 average consumption levels as the baseline.

The strategy will ensure compliance with the provisions of the Protocol and further reflect Government's objectives to minimise Eritrea's consumption of ODS while at the same time reducing the cost associated with the country's industries and consumers. This is also in accordance with projects proposed for financing from the Multilateral Fund and in agreement with the aim of the Fund to provide incentives for the eventual phase-out of ODS by 2010.

Action Plan

The objective of the Action Plan is to phase-out the consumption of ODS in Eritrea in compliance with the Montreal Protocol as ratified by the Eritrean Government, and in accordance with the recommended ODS phase-out strategy.

The Action Plan covers a period of three years from 2008 to the end of 2010. The plan comprises the introduction of Government initiatives to effectively regulate and monitor the use of ODS, and a series of proposed projects in the ODS end user sectors some of which are seen as prerequisite for the implementation of the phase-out schedule.

Government Actions:

Two of the basic actions included in the plan have already been initiated with effect from the June 2005.

The relevant institutional framework for implementation of the Action Plan has been created by the establishment of the National Committee for ODS (NACODS), which includes representatives from key Government institutions as well as representatives for different user associations. The Committee shall advise the Department of Environment (DoE) on all issues related to ODS. Furthermore, under the DoE, a special Ozone Office has been created.

A Task Group of the Committee on Programme Implementation within the Refrigeration Sector (Refrigeration Expert Sub-Committee) will be constituted to assist in the work of the office through periodic reviews of progress of actions within the refrigeration sector.

A system for monitoring ODS use by substance is expected to be established. The system will be based on the need for a clearance certificate to be obtained from the Ozone Office for import of ODS before such import can be effected. As part of the system, the Customs Department (Ministry of Finance) will supply copies of all import declarations concerning ODS to the Ozone Office on the basis of the clearance certificate permitting the import. This will enable the Office to be in control of all imports passing through the ports and points of entry.

Other proposed Government Actions include:

Introduction of Regulatory Measures

The proposed regulatory measures include a schedule of bans on the use of ODS for specific purposes at specifically given dates in accordance with the recommended phase-out strategy. A local legal consultant will be contracted to assist in preparing a full schedule of regulatory measures and draft regulations for consideration of the Government through the National Committee on ODS.

3. Import/Export Licensing System

An Import/Export Licensing System is expected to be established to allow for the monitoring and controlling of ODS in and out of the country. The system will facilitate the smooth transition to non-ODS technology by providing clear signal to importers, wholesalers and industry about the maximum quantities of ODS permitted to be imported each year into the country until the phase-out date. The key elements of the Import/Export Licensing system in Eritrea will include the following:

- Legal basis, structure and functioning of the Licensing System;
- Import restrictions for ODS (quota, bans);
- Seized ODS and ODS based equipment;
- Recording of data, data management and reporting;
- Monitoring and evaluation;

- Introduction of certification arrangements for refrigeration engineers & technicians and
- Information dissemination.

Project Proposals:

Seven (7) projects under two main sectors are proposed for funding from the Multilateral Fund. The sectors are Institutional Strengthening and Refrigeration.

The projects comprise of the following:

A) **Project IS 1**: Institutional strengthening for the phase-out of ozone depletion substances

B) **Project-R1-** Refrigeration Sector Projects

Four (4) sub-projects that aim at eliminating the use of ODS within the refrigeration sector will be proposed in a NPP.

These sub-projects include:

- Training of Trainers in Code of Good Refrigeration Practices & Establishment of National Refrigeration Demonstration Centre-Project R-1
- Improved Servicing and Maintenance within the Refrigeration Sector-Recovery and Recycling Project
- Customs Training Programme and
- Monitoring of all activities within the RMP.

Detailed description of these will be included in the Total Phase-out Management Plan (TPMP) proposal for Eritrea

Table 4.4 shows the proposed phasing and duration of the proposed projects. The projects will be initiated as soon as the Government secures funds for their implementation from the Multilateral Fund.

Budget and Financing of Activities 2007- 2010

Table 4.1 gives a breakdown of costs of the Action Plan by components and by year of implementation. It is proposed that all the costs are incremental project costs to be funded by the Multilateral Fund.