



**United Nations  
Environment  
Programme**

Distr.  
LIMITED

UNEP/OzL.Pro/ExCom/45/36  
4 March 2005

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Forty-fifth Meeting  
Montreal, 4-8 April 2005

**PROJECT PROPOSALS: MALI**

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposals:

Refrigeration

- Refrigerant management plan update: supplementary training and spares to the national programme for recovery and recycling of refrigerants UNDP
- Refrigerant management plan update: phase 2 training for customs officials UNEP
- Refrigerant management plan update: phase 2 training for refrigeration technicians UNEP
- Refrigerant management plan update: monitoring of the activities UNEP

**PROJECT EVALUATION SHEET – NON-MULTI-YEAR PROJECTS  
MALI**

**PROJECT TITLES****BILATERAL/IMPLEMENTING AGENCY**

(a)	Refrigerant management plan update: supplementary training and spares to the national programme for recovery and recycling of refrigerants	UNDP
(b)	Refrigerant management plan update: phase 2 training for customs officials	UNEP
(c)	Refrigerant management plan update: phase 2 training for refrigeration technicians	UNEP
(d)	Refrigerant management plan update: monitoring of the activities	UNEP

<b>NATIONAL CO-ORDINATING AGENCY</b>	Bureau Ozone Mali (BOM)
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**LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT****A: ARTICLE-7 DATA (ODP TONNES, 2003, AS OF JANUARY 2005)**

Annex A Group I CFCs	26.00		
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**B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2003, AS OF JANUARY 2005)**

ODS Name	Sub-sector/quantity	Sub-sector/quantity	Sub-sector/quantity	Sub-sector/quantity.
CFC-11	Servicing: 0.50			
CFC-12	Servicing : 25.00			

<b>CFC consumption remaining eligible for funding (ODP tonnes)</b>	n/a
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<b>CURRENT YEAR DRAFT BUSINESS PLAN ALLOCATIONS</b>		Funding US \$	Phase-out ODP tonnes
(a) – (d)		219,500	2.0

<b>PROJECT TITLE:</b>	<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>
<b>ODS use at enterprise (ODP tonnes):</b>	n/a	n/a	n/a	n/a
<b>ODS to be phased out (ODP tonnes):</b>	*	*	*	*
<b>ODS to be phased in (ODP tonnes):</b>	n/a	n/a	n/a	v
<b>Project duration (months):</b>	24	18	18	24
<b>Initial amount requested (US \$):</b>	50,000	29,546	25,000	20,000
<b>Final project cost:</b>				
Incremental Capital Cost (US \$)				
Contingency (10%) (US \$)				
Incremental Operating Cost (US \$)				
Total Project Cost (US \$)	50,000	29,546	25,000	20,000
<b>Local ownership (%):</b>	100	100	100	100
<b>Export component (%):</b>	0	0	0	0
<b>Requested grant (US \$):</b>	50,000	29,546	25,000	20,000
<b>Cost-effectiveness (US \$/kg):</b>	n/a	n/a	n/a	n/a
<b>Implementing agency support cost (US \$):</b>	4,500	3,841	3,250	2,600
<b>Total cost of project to Multilateral Fund (US \$):</b>	54,500	33,387	28,250	22,600
<b>Status of counterpart funding (Y/N):</b>	n/a	n/a	n/a	n/a
<b>Project monitoring milestones included (Y/N):</b>	Y	Y	Y	Y

<b>SECRETARIAT'S RECOMMENDATION*</b>	Approval at the costs indicated above
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\* To be in compliance with the 2005 and 2007 Montreal Protocol limits (CFC baseline is 108.1 ODP tonnes)

## **PROJECT DESCRIPTION**

1. The Government of Mali has submitted for consideration by the Executive Committee at its 45th Meeting a project proposal for a refrigerant management plan (RMP) update at a cost of US \$124,546.
2. In 2003, total CFC consumption in Mali was estimated at 26 ODP tonnes used to service refrigeration systems. The CFC baseline for Mali is 108.1 ODP tonnes.
3. The refrigeration servicing sector consists of 400 service workshops, the majority of which are very small and not registered (informal workshops). There are approximately 800 technicians working in the refrigeration sector. Bad servicing and maintenance practices are still frequent; for example, CFCs are frequently used to flush and clean refrigeration systems
4. The current prices of refrigerants per kg are: US \$10.00 to US \$12.30 for CFC-11, US \$8.00 to US \$12.00 for CFC-12, US \$25.00 to US \$35.00 for HFC-134a and US \$8.00 to US \$12.00 for HCFC-22.

### ODS regulations

5. The legal framework that supports all of the Government's initiatives to implement the Montreal Protocol in Mali are based on two ministerial regulations (Arrêté Interministériel 01 2708/MEATEU-MEF-MICT and Arrêté 01/2699/MICT-SG) that establish the special authorization for import and export of CFCs, including import quotas based on the national phase-out calendar. CFCs are now included on Mali's list of controlled import products. These regulations entered into force in October 2001.

### Refrigerant management plan (RMP)

6. At its 29th Meeting, the Executive Committee approved an RMP project for Mali. The request for implementation of the recovery and recycling programme considered in the original RMP was subsequently approved at the 32nd Meeting. The status of the activities included in the RMP project is as follows:
  - (a) Assistance in drafting ODS-related legislation: Expert assistance to enable Mali to: draft legislation to control the import of ODS and ODS-based equipment was provided, and since October 2001 ODS regulations have been in place. A workshop for the validation of the quota system was conducted in February 2002;
  - (b) Training of customs officers: Six training programmes were conducted with the participation of 60 customs officers (80 officers less than the number proposed in the original RMP). In addition, 17 ODS identifier kits were distributed among the officers;
  - (c) Train-the-trainers programme in the refrigeration sector: Training programmes for refrigeration servicing technicians were conducted with the participation of 183 technicians. The participants had received certificates and most of the

refrigerant service workshops have had at least one technician trained. Since the implementation of the training programmes, the number of technicians in the country has increased.

- (d) National programme for recovery and recycling of refrigerants: Three workshops on recovery/recycling operations were conducted with the participation of 75 technicians. In total, 25 recovery machines and 3 recycling machines were distributed.

#### Compliance strategy and action plan

7. The Government of Mali has developed a compliance strategy based on the following elements:

- (a) Assistance to end-users (owners of refrigeration systems) to promote a reduction in the consumption of CFCs;
- (b) Strengthening of awareness among the general public and major CFC users, in order to promote a reduction in CFC use;
- (c) Permanent monitoring of CFC phase-out activities supporting the compliance strategy developed by the Government.

8. The following specific activities are proposed to implement the phase-out action plan:

- (a) Supplementary support for the recovery and recycling programme (US \$50,000): This activity is to supplement the existing recovery and recycling programme with spare parts for existing equipment, and to supply basic repair tools and equipment (including vacuum pumps) to service technicians;
- (b) Additional training for refrigeration servicing technicians in good servicing practices (US \$25,000): This activity consists of additional training on good servicing practices to make more efficient use of CFCs and thus reduce their consumption.
- (c) Additional training for customs officers (US \$29,546): This activity will aim to provide additional training for customs officers on the prevention of illegal CFC trade, and to efficiently implement the CFC quota system and harmonized legislation established by the sub-regional economically integrated organization of West Africa (UEMO).
- (d) Monitoring the activities in the RMP update (US \$20,000): This activity is aimed at establishing a system to monitor phase-out activities in Mali, in order to detect any problems and apply corrective measures in a timely manner.

9. The Mali RMP update project was submitted with an official letter from the Government of Mali, signed by the National Director of Sanitation and Pollution Control, stating the

Government's commitment to achieve, without further requests for funding, at least the 50 per cent reduction in CFC consumption by 2005 and the 85 per cent reduction by 2007.

10. By request of the Government of Mali, UNEP is the lead implementing agency and UNDP is the co-operating agency for implementation of the RMP update project.

## **SECRETARIAT'S COMMENTS AND RECOMMENDATION**

### **COMMENTS**

11. The Secretariat notes that the project proposal has been submitted in accordance with the provisos of Decision 31/48 and subsequent decisions taken by the Executive Committee regarding RMP proposals, including the level of funding requested.

12. Following a request by the Secretariat for information on the status of the recovery and recycling programme approved within the original RMP, UNDP reported that during its mission to Mali in July 2004, it was found that the equipment had already been distributed among servicing workshops throughout the country. However, the following deficiencies were identified:

- (a) The recovery machines were distributed throughout the whole country, rather than being concentrated in larger urban areas where CFC consumption is higher. There is therefore a need to re-organize the distribution of the machines;
- (b) The training provided to service technicians was not sufficient. Therefore, there is a need to hold additional training workshops; and
- (c) Some of the recovery machines are not in operation and spare parts and smaller equipment need to be purchased to safeguard the initial investment.

13. The RMP update project proposes to provide additional training to customs officers and refrigeration technicians, and additional support for the original recovery/recycling project. Considering the current level of CFCs used in the country and their distribution (mainly for servicing domestic refrigerators), the recovery and recycling programme already implemented, and the requirements of Decision 41/100 on RMPs, the Secretariat suggested that UNEP and UNDP examine the merits of providing most of the resources available for assisting the Government of Mali to establish a procedure to favour the importation of non-CFC drop-in refrigerants, including training of refrigeration service technicians in good servicing practices and in the use of drop-in refrigerants, within the eligible level of funding of the RMP proposal. Without an operational licensing system and a mechanism to facilitate the introduction of drop-in refrigerants, Mali may not be able to achieve the 2005 and 2007 CFC consumption levels.

14. Subsequently, UNDP informed the Secretariat that, with the additional funding requested for the supplementary support to the recovery and recycling programme (US \$50,000), UNDP will address the issues regarding the recovery and recycling programme under current

implementation and will also include information on drop-in substances as recommended by the Secretariat.

## RECOMMENDATION

15. The Fund Secretariat recommends blanket approval of the projects with associated support costs at the funding levels shown in the table below.

	<b>Project Title</b>	<b>Project Funding (US\$)</b>	<b>Support Cost (US\$)</b>	<b>Implementing Agency</b>
(a)	Refrigerant management plan update: supplementary training and spares to the national programme for recovery and recycling	50,000	4,500	UNDP
(b)	Refrigerant management plan update: phase 2 training for customs officials	29,546	3,841	UNEP
(c)	Refrigerant management plan update: phase 2 training for refrigeration technicians	25,000	3,250	UNEP
(d)	Refrigerant management plan update: monitoring of the activities	20,000	2,600	UNEP

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