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

PROJECT PROPOSALS: MALI

Refrigeration

- Refrigerant management plan: monitoring of the activities included in the RMP UNDP
- Refrigerant management plan: national programme for recovery & recycling of refrigerants UNDP
- Refrigerant management plan: assistance in drafting legislation UNEP
- Refrigerant management plan: train the trainers programme in the refrigeration sector UNEP
- Refrigerant management plan: training & equipping of customs officers UNEP

PROJECT EVALUATION SHEET
MALI

SECTOR: Refrigeration ODS use in sector (199): ODP tonnes

Sub-sector cost-effectiveness thresholds: US \$/kg

Project Titles:

- (a) Refrigerant management plan: monitoring of the activities included in the RMP
- (b) Refrigerant management plan: national programme for recovery & recycling of refrigerants
- (c) Refrigerant management plan: assistance in drafting legislation
- (d) Refrigerant management plan: train the trainers programme in the refrigeration sector
- (e) Refrigerant management plan: training & equipping of customs officers

Project Data	REFRIGERANT MANAGEMENT PLAN				
	(a)	(b)	(c)	(d)	(e)
Enterprise consumption (ODP tonnes)					
Project impact (ODP tonnes)		14.60			
Project duration (months)	24	36	18	18	18
Initial amount requested (US \$)	15,455	295,713	10,980	60,000	70,000
Final project cost (US \$):					
Incremental capital cost (a)	14,050	270,405	10,980	60,000	70,000
Contingency cost (b)	1,405	25,308			
Incremental operating cost (c)					
Total project cost (a+b+c)	15,455	295,713	10,980	60,000	70,000
Local ownership (%)	100%	100%	100%	100%	100%
Export component (%)	0%	0%	0%	0%	0%
Amount requested (US \$)	15,455	295,713	10,980	60,000	70,000
Cost effectiveness (US \$/kg.)					
Counterpart funding confirmed?					
National coordinating agency					
Implementing agency	UNDP	UNDP	UNEP	UNEP	UNEP

Secretariat's Recommendations					
Amount recommended (US \$)	Deferred	Deferred	10,980	60,000	70,000
Project impact (ODP tonnes)			-	-	-
Cost effectiveness (US \$/kg)			-	-	-
Implementing agency support cost (US \$)			1,427	7,800	9,100
Total cost to Multilateral Fund (US \$)			12,407	67,800	79,100

PROJECT DESCRIPTION

Refrigerant Management Plan: Mali

1. The total ODS consumption for the refrigeration sector in the country was estimated at 94 ODP tonnes in 1998 for servicing domestic, commercial and industrial refrigeration equipment and MAC units. Based on data gathered during a recent survey, there are about 175 workshops servicing refrigeration equipment.
2. Based on the survey carried out during the preparation of the RMP, it was found that the amount of CFC used for servicing refrigeration equipment was remarkably high: 67.2 tonnes of CFCs every year to service 59,321 domestic refrigerators (total population of refrigerators in the country); 11.44 tonnes of CFCs to service 11,910 MAC units, which is equivalent to servicing each unit at least once a year; and 1,321.5 kg of CFC-12 to service 20 small cold rooms with an average charge of 3 to 5 kg of CFC refrigerant. In the survey, it was found that individual plant leakage rates varied from 5 to 30 times the amount of refrigerant charged in the equipment.
3. The Government of Mali is proposing to develop and implement legislation related to ODSs, including control on ODS imports, establishment of a licensing system for imports of ODS and ODS-based equipment, establishment of taxes on these imports, and incentives for imports of non-ODSs. The RMP includes a request for expert assistance to develop this legislation. Once in place, the import regulations will be enforced by customs officers.
4. The RMP identified two basic training programmes: (i) training for customs officers, to identify and develop techniques for collecting data on consumption of ODS import and ODS-based refrigeration equipment and a license/quota system for CFC imports; this programme includes ODS identification kits; and (ii) a “train the trainers” programme for refrigeration technicians in good management practices, aimed at improving service practices to prevent release of CFCs into the atmosphere and thus making it possible for refrigeration equipment to operate to the end of their useful life.
5. The RMP also includes a subproject for the establishment of a recovery and recycling network comprising 50 recovery units (including units to be used in the training programme on good servicing practices) and 4 recycling centres for servicing commercial and industrial refrigeration equipment, at a total cost of US \$278,400
6. Mali’s Ozone Unit will be responsible for the monitoring, co-ordination and implementation of proposed phase-out activities in the RMP. The project also includes a request in the amount of US \$15,455 for engaging a local consultant to collect data from all the service workshops that are included in the recovery and recycling project.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The Secretariat and UNEP discussed the level of funding requested for the training programmes. Costs associated with logistical arrangements for workshops, consultants fees and for project assistance, monitoring and evaluation were adjusted accordingly.
2. The Secretariat and the implementing agencies (UNDP and UNEP) also discussed the very low quantities of CFCs that will be available for recovering and recycling due to the extraordinarily high leakage rates of CFCs in the country. It was agreed to defer approval of the recovery and recycling project after ODS-related legislation is in place and the training programme for refrigeration service technicians is under full implementation. By that time, it is expected that the quantities of CFCs used for servicing equipment will be reduced and thus, the recovery and recycling project could be revised and resubmitted for consideration by the Executive Committee.
3. The proposal for monitoring the activities included in the RMP was also discussed in the light of the functions of the Ozone Unit. UNEP and UNDP agreed to adjust the level of funding accordingly.

RECOMMENDATIONS

1. The Fund Secretariat recommends blanket approval of the projects at the funding level indicated below:

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Refrigerant management plan: monitoring of the activities included in the RMP	Deferred		UNDP
(b)	Refrigerant management plan: national programme for recovery & recycling of refrigerants	Deferred		UNDP
(c)	Refrigerant management plan: assistance in drafting legislation	10,980	1,427	UNEP
(d)	Refrigerant management plan: train the trainers programme in the refrigeration sector	60,000	7,800	UNEP
(e)	Refrigerant management plan: training & equipping of customs officers	70,000	9,100	UNEP

2. The Executive Committee may also wish to request UNEP not to proceed with the disbursement of funds approved for the customs training programme until the regulatory and legislative requirements and fiscal steps proposed by the Government of Chad are put into place.
3. The Executive Committee may also wish to request UNDP to revise the scope and size of the recovery and recycling project once the training programme for refrigeration servicing technicians undergoes implementation.