



**United Nations
Environment
Programme**



Distr.
Limited

UNEP/OzL.Pro/ExCom/30/29
28 February 2000

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirtieth Meeting
Montreal, 29-31 March 2000

PROJECT PROPOSALS: GRENADA

Refrigeration

- Refrigerant management plan: Train the trainer programme UNEP
- Refrigerant management plan: Training of customs officers, ODS inspectorate and NOU staff UNEP
- Refrigerant management plan: national recovery and recycling project UNDP

**PROJECT EVALUATION SHEET
GRENADA**

SECTOR: RMP ODS use in sector (1998): 5.267 ODP tonnes

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

Project Title:

- (a) Refrigerant management plan: Train the trainer programme
 (b) Refrigerant management plan: Training of customs officers, ODS inspectorate and NOU staff
 (c) Refrigerant management plan: national recovery and recycling project

Project Data	(a)	(b)	(c)
Enterprise consumption (ODP tonnes)			
Project impact (ODP tonnes)			1.2
Project duration (months)	18	18	18
Initial amount requested (US \$)	54,500	38,700	42,200
Final project cost (US \$):			
Incremental capital cost (a)			30,300
Contingency cost (b)			3,100
Incremental operating cost (c)			
Total project cost (a+b+c)	52,000	36,700	33,400
Local ownership (%)			
Export component (%)			
Amount requested (US \$)	52,000	36,700	33,400
Cost effectiveness (US \$/kg.)			
Counterpart funding confirmed?			
National coordinating agency		National Ozone Unit	
Implementing agency	UNEP	UNEP	UNDP

Secretariat's Recommendations			
Amount recommended (US \$)	52,000	36,700	33,400
Project impact (ODP tonnes)			1.2
Cost effectiveness (US \$/kg)			
Implementing agency support cost (US \$)	6,760	4,771	4,342
Total cost to Multilateral Fund (US \$)	58,760	41,471	37,742

PROJECT DESCRIPTION

Refrigerant Management Plan for Grenada

1. In 1998, the total CFCs consumption in the refrigeration servicing sector in Grenada was estimated at 4.6 ODP tonnes, representing 100 per cent of the total ODS consumption.
2. Based on data gathered during a survey completed in June 1999, there are about 50 refrigeration technicians most of whom received formal training at the local Community College.
3. Commercial refrigeration systems are reasonably well maintained; most equipment repairs are related to leakage from corrosion and compressor burn out caused by voltage fluctuation. In the MAC sub-sector, the newer models of vehicles have HFC-134a based-systems; two car dealers service MAC units and the rest have agreements with refrigeration servicing companies.
4. The Government of Grenada, through the Ozone Unit, will develop and implement control measures including restriction of ODS-based equipment imports and will establish import quotas and licenses and certification for refrigeration service technicians.
5. The RMP identified two basic training programmes to be implemented by UNEP: (i) training for customs officers to implement import policies and to develop and implement a system to collect data required to monitor and control import and consumption of CFCs and CFC-based equipment. As a result of project implementation, a database of CFC imports and consumption as well as regulations and controls over the import of CFCs and CFCs-based equipment will be put in place; 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. Implementation of this project will eliminate 0.5 tonnes of CFC-11 currently used for purging refrigeration systems by 2001 (representing the total CFC-11 consumption in the country); at least 10 per cent reduction in the consumption of CFC-12 from 2001, and the phase-out of R-502 by 2006.
6. The RMP also includes a subproject for the establishment of a recovery and recycling network comprising 5 recovery units and one recycling centre for servicing commercial and industrial refrigeration equipment and MAC units, at a total cost of US \$33,400. This activity also provides for one workshop for service technicians on practical demonstrations for recovery operations. The project will be implemented by UNDP.
7. Implementation of these projects will lead to recovery and recycling of 1.2 tonnes of CFC-12 each year. This amount would be additional to the amount of refrigerant which might be saved from the teaching of good service and maintenance practices at the training seminars.

8. The Government and national stakeholders are committed to the freeze and phase out requirements of the Montreal Protocol. The Grenada Ozone Unit will be responsible for the monitoring, co-ordination and successful implementation of the phase-out activities proposed in the RMP.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The Secretariat discussed with UNEP the possibility of using staff from the local Community College for the implementation of the refrigeration training programme, and reducing the duration of the training programme from 18 to 12 months, taking into account the limited amount of refrigeration equipment in operation and the small number of technicians. UNEP informed the Secretariat that the international consultant will be used only for training the local staff of the college during the first phase of the programme; the staff will then train the remaining technicians in the following phase. UNEP also agreed to reduce the project duration to 12 months (instead of 18 months).

2. The Secretariat discussed with UNEP the level of funding requested for the training programmes. Costs associated with refrigeration equipment to be used in the training programme and project monitoring were adjusted accordingly.

3. The Secretariat and the implementing agencies (UNDP and UNEP) also discussed the size of the recovery and recycling programme in relation to the CFC consumption level and its sectoral distribution. It was agreed to include two refrigerant recovery units within the recycling centre to be used by a number of service workshops which have a low consumption of CFCs on an annual basis. The unitary cost of the recovery and recycling machines and ancillary equipment was adjusted according to the cost of the equipment in similar projects so far approved.

RECOMMENDATIONS

1. The Fund Secretariat recommends blanket approval of the project with associated support costs at the funding level shown in the table below:

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Refrigerant management plan: Train the trainer programme	52,000	6,760	UNEP
(b)	Refrigerant management plan: Training of custom officers, ODS inspectorate and NOU staff	36,700	4,771	UNEP
(c)	Refrigerant management plan: National recovery recycling project	33,400	4,342	UNDP

2. The Executive Committee may also wish to request UNDP not to proceed with the disbursement of funds approved for the recovery and recycling programme until the regulatory and legislative requirements and fiscal steps proposed by the Government of Grenada are put into place.