



**United Nations
Environment
Programme**

Distr.
LIMITED

UNEP/OzL.Pro/ExCom/34/49
21 June 2001



ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-fourth Meeting
Montreal, 18-20 July 2001

PROJECT PROPOSALS: VIETNAM

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

Refrigeration:

- Implementation of the RMP: regional programme for recovery and recycling of CFC12 refrigerant Australia
- Implementation of the RMP: customs training Poland
- Implementation of the RMP: monitoring the activities in the RMP UNDP
- Implementation of the RMP: regional programme for recovery and recycling of CFC12 refrigerant UNDP
- Implementation of the RMP: workshop for finalisation of regulations UNEP
- Implementation of the RMP: train the trainer programme UNEP

**PROJECT EVALUATION SHEET
VIETNAM**

SECTOR: Refrigeration ODS use in sector (2000): 140 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

Project Titles:

- (a) Implementation of the RMP: regional programme for recovery and recycling of CFC12 refrigerant
- (b) Implementation of the RMP: customs training
- (c) Implementation of the RMP: monitoring the activities in the RMP
- (d) Implementation of the RMP: regional programme for recovery and recycling of CFC12 refrigerant
- (e) Implementation of the RMP: workshop for finalisation of regulations
- (f) Implementation of the RMP: train the trainer programme

Project Data	Refrigerant management plan					
	R&R	Customs training	Monitoring	R&R	Workshop	Train the trainer
Enterprise consumption (ODP tonnes)						
Project impact (ODP tonnes)	18.95					
Project duration (months)	36	18	36	36	3	24
Initial amount requested (US \$)	289,976	126,892	21,600	46,000	4,350	242,250
Final project cost (US \$):						
Incremental capital cost (a)						
Contingency cost (b)						
Incremental operating cost (c)						
Total project cost (a+b+c)						
Local ownership (%)	100%	100%	100%	100%	100%	100%
Export component (%)	0%	0%	0%	0%	0%	0%
Amount requested (US \$)						
Cost effectiveness (US \$/kg.)						
Counterpart funding confirmed?						
National coordinating agency	National Office for Climate Change and Ozone Protection					
Implementing agency	Australia	Poland	UNDP	UNDP	UNEP	UNEP

Secretariat's Recommendations						
Amount recommended (US \$)						
Project impact (ODP tonnes)						
Cost effectiveness (US \$/kg)						
Implementing agency support cost (US \$)						
Total cost to Multilateral Fund (US \$)						

PROJECT DESCRIPTION

Implementation of the RMP: regional programme for recovery and recycling of CFC12 refrigerant

Implementation of the RMP: customs training

Implementation of the RMP: monitoring the activities in the RMP

Implementation of the RMP: regional programme for recovery and recycling of CFC12 refrigerant

Implementation of the RMP: workshop for finalisation of regulations

Implementation of the RMP: train the trainer programme

1. Through a survey on the refrigeration sector conducted in 2000, the total CFC consumption in the refrigeration servicing sector in Vietnam was estimated at 140 ODP tonnes, with the following distribution: domestic refrigerators (47 tonnes), commercial and industrial refrigeration equipment (68 tonnes) and MAC units (25 tonnes).

2. Between 1996 and 1999, total CFC consumption in the refrigeration sector in the country was reduced from 235 ODP tonnes to 168 ODP tonnes. This reduction is associated with an increase in the number of non-CFC-based equipment (mainly domestic refrigerators and MAC units) produced or imported, and the stagnant economy resulted in lowering the demand for refrigeration and air conditioning equipment. However, a positive growth in the economy is expected which may in turn result in a higher consumption of CFCs.

Policy measures

3. The CFC phase out strategy proposed by the Government of Vietnam comprises a set of policies, including:

- (a) Ban on the manufacture, import or export of CFC-based domestic and commercial refrigeration equipment and MAC units, and installation of industrial refrigeration equipment as of 2002;
- (b) Ban on the manufacture, import or export of CFC-based compressors as of 2004;
- (c) Compulsory dismantling of CFC-based industrial refrigeration equipment by the end of 2005;
- (d) Reduction on import duties for CFC and HCFC recycling units;
- (e) Compulsory licensing of technicians to service CFC-based refrigeration equipment;
- (f) Economic incentives (lower import duties) to promote the use of non-CFC-based equipment, and promote CFC recovery and recycling operations.

4. The RMP for Vietnam has been submitted with an official letter signed by the Ozone Co-ordinator stating the Government's commitment that, through the activities proposed in the RMP if approved and implemented as planned, it will achieve the 50 per cent reduction in consumption of CFCs by 2005 and 85 per cent reduction by 2007, at the proposed level of funding. The Government also confirmed that it has taken all steps necessary to ensure that the RMP project accurately presents the current consumption of CFCs in the refrigeration sector (including SMEs, the informal sector and MACs) and the activities required for achieving the phase out (including monitoring of the implementation of the RMP). It is also understood that the Executive Committee will review whether or not further assistance would be needed for the phase out of CFC beyond 2007.

Projects already approved in the refrigeration servicing sector

5. The Executive Committee has approved the following projects in the refrigeration servicing sector in Vietnam:

- (a) Demonstration project in CFC recycling and emissions reduction in the commercial refrigeration sector, approved at the 20th Meeting of the Committee for joint implementation by the Government of Australia (US \$282,687) and UNDP (US \$168,216).
- (b) MAC servicing demonstration project, approved at the 20th Meeting of the Committee for implementation by the Government of the United States (approved at a level of funding of US \$300,000; however, the project was cancelled and US \$159,000 was returned to the Multilateral Fund).
- (c) Pilot project for CFC emission reductions in spinning halls air conditioning systems chillers, approved at the 28th Meeting of the Committee for implementation by the Government of France (US \$197,340).

Sub-projects contained in the RMP

6. The RMP project for Vietnam includes a sub-project for modifications of legal provisions at a cost of US \$4,350, to be implemented by UNEP; a training programme for enforcement officers at a cost of US \$126,892, to be implemented by the Government of Poland in collaboration with UNEP; a "train the trainers" programme in good service practice for refrigeration technicians at a cost of US \$242,250, to be implemented by UNEP; a complementary refrigerant recovery and recycling programme for the southern regions of the country at a cost of US \$335,976, to be implemented by the Government of Australia; and a monitoring system at a cost of US \$21,600, to be implemented by UNDP.

7. In addition to the above sub-projects, the RMP includes a recovery and recycling sub-project for the MAC sector (US \$100,000) and an incentive scheme for end-users conversion (US \$100,000).

8. The Ozone Unit will co-ordinate all the sub-projects included in the RMP project.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

9. The Secretariat pointed out that implementation of the demonstration project in CFC recycling and emissions reduction in commercial refrigeration was delayed by three years. Subsequently, the Government of Vietnam indicated that the project was currently under implementation. Based on a progress report submitted by the Government, training workshops for refrigeration technicians on recovery practices have been undertaken and most of the recovery and recycling equipment has been distributed; about 6.8 tonnes of CFC-12 have been recovered and 1.5 tonnes have been recycled. Regarding the pilot project for chillers, it was reported that technical experts have already assessed 14 chillers and a detailed report is being finalised.

10. Upon a request for clarification on whether or not CFC-based domestic refrigerators were still produced in the country by Daewoo and Nam HA Electronic Co., UNEP reported that based on information from these companies, the Ozone Unit, and a market research undertaken during the preparation of the project, it appears that CFC-12 is no longer being used by these companies.

11. The Secretariat also indicated that the projects so far approved for Vietnam in the refrigeration servicing sector are typically included in an RMP and allowance for their cost must be made when formulating the RMP. The additional request for the RMP of Vietnam (US \$731,000 plus US \$300,000 in other activities to be submitted in the future) is beyond the increase in funding allowed under Decision 31/48. In this regard, UNEP reported that the funding level requested for the sub-projects in the RMP proposal has been estimated taking into account the size of the country, the sectoral use of CFCs and its geographical distribution. It is necessary to set-up three refrigeration training centres (north, middle and south regions of Vietnam) and undertake two training programmes for customs officers (one at Ho Chi Minh city and the other at Hanoi) for selected officers so that they can train another group of officers. The complementary CFC recovery and recycling sub-project has been designed to cover the southern part of the country, which was not covered in the demonstration project under current implementation. UNDP also informed that the recovery and recycling programme in the RMP only covered the commercial and industrial refrigeration sub-sector, however, it could be expanded to include the MAC sub-sector (at an additional cost).

RECOMMENDATION

The Fund Secretariat and the implementing agencies are finalising their discussion on some cost-related issues. Results of the discussions will be communicated to the Executive Committee.
