



**United Nations
Environment
Programme**



Distr.
LIMITED

UNEP/OzL.Pro/ExCom/20/38
21 September 1996

ORIGINAL: ENGLISH

Executive Committee of
the Multilateral Fund for the
Implementation of the Montreal Protocol

Twentieth Meeting
Montreal, 16-18 October 1996

PROJECT PROPOSAL: VIETNAM

This document includes the Comments and Recommendations from the Fund Secretariat on the following project:

Refrigeration

- Demonstration project - CFC recycling and emissions reduction in the commercial refrigeration sector (Australia and UNDP)

UNDP
component

SECTOR: **REFRIGERATION** ODS use in sector (1994): 317.0 ODP tonnes
CFC RECOVERY AND RECYCLING

Demonstration project on CFC recycling and emission reduction in the commercial refrigeration sector

Secretariat's Recommendations	
Amount recommended (US \$)	
UNDP	168,216
Project impact (ODP tonnes)	28.2 (including Australian component)
Cost effectiveness (US \$/kg)	14.86 (including Australian component)
Implementing Agency support cost (US\$)	
UNDP	21,868
Total cost to Multilateral Fund	190,084 (UNDP component: with Australia-472,771)

PROJECT DESCRIPTION

1. The project will be implemented through bilateral cooperation by the Government of Australia (through the Australian Environment Protection Agency) jointly with UNDP. A proposal for Australia (with the same project description) is provided in document UNEP/OzL.Pro/ExCom/20/7).
2. The project will reduce the use of CFC in the commercial and industrial refrigeration and air-conditioning sub-sectors by implementing recovery and recycling strategies and other emission-control measures. It will also build the capacity of established institutions to provide training to refrigeration technicians.
3. The project consists of two stages. The first stage (Pilot), will identify, implement and evaluate various measures to reduce CFC emissions during equipment service in the city of Ho Chi Minh. During this stage, UNDP will consider incorporating cost-sharing or other innovative financing mechanisms for the purchase of recovery equipment for participating enterprises. After a thorough review of local conditions, including an investigation of potential operating savings and the willingness-to-pay at local enterprises, UNDP will determine whether such mechanisms are feasible, and can be incorporated into the project. Based on the case studies developed during the Pilot Stage, the second stage (Extension) will develop a solid core of enterprises employing low-ODS emissions techniques.
4. The outcomes of both phases will provide a solid foundation of technical knowledge, institutional training capacity, industry capacity and demonstrable economic benefits to ensure the ongoing proliferation of low-ODS CFC emission practices in the country. Furthermore, the proposed cost-sharing mechanism may bring added benefits to the project, *inter alia*, an increase in the cost-effectiveness of the project; an increase in recovery and recycling equipment, and the participation of a larger number of enterprises.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The Vietnam country programme, approved at the 19th Executive Committee Meeting (May 1996), reports a consumption of 22.42 metric tonnes of CFC-12, 2.26 metric tonnes of CFC-115 and 40.39 metric tonnes of HCFC-22 for servicing domestic refrigerators, commercial and air conditioning units and MAC units. However, the project document reports a consumption of 200 to 250 tonnes of ODS, primarily CFC-12 and R-502, in the refrigeration and air conditioning sectors.
2. The Fund Secretariat, recalling Decision 17/2 of the Executive Committee on significant difference between ODS data contained in a project and data in a country programme, informed

the Government of Australia and UNDP that the Government of Vietnam should be made aware of the Executive Committee's policy and requested updating the ODS consumption figures in its country programme for the aerosol sector, and submitting the revised figures and a detailed explanation of the reasons for the variation.

3. The Government of Australia informed the Secretariat that the Government of Vietnam will submit an amendment to its country programme indicating the current consumption of controlled substances in the country.

4. Various activities associated with refrigerant emission controls, including recycling practices, have been approved by the Executive Committee, through bilateral cooperation by the Governments of France and the United States and through UNIDO's work programme. While these activities are targeted to different refrigeration subsectors, close coordination with the other donor countries and UNIDO during project implementation is required to avoid overlapping or duplication.

5. The project comprises a pilot phase in which recycling and other emission reduction strategies will be implemented and assessed and an extension phase in which a full emission reduction programme in commercial refrigeration will be put into place. Design of the extension phase will start one year after project approval. While the extension phase will be on the basis of the results of the pilot phase, the project costs are for full project implementation. If some of the equipment listed for the Extension stage would not be needed, the funds allocated will be used to increase the number of refrigeration technicians that will receive training and a recovery machine. If this is not feasible, the funds will be returned to the Multilateral Fund.

6. Costs related to technical assistance and training amount to about 40 per cent of the total project cost, which are high as compared to similar projects of this size. This is due to the need to conduct an efficient and effective analysis of the incentives to recover and recycle CFC in the Vietnam context. The technical assistance component will identify and address each of the financial, cultural and economic incentives of the enterprise managers, service technicians, equipment suppliers, customers and the government officials.

RECOMMENDATIONS

1. The Fund Secretariat recommends approval of the project with associated support costs at the funding levels indicated, subject to the condition in Recommendation 2 below:

Project	Project Cost US \$	Support Cost US \$	Implementing Agency
Demonstration project on CFC recycling and emission reduction in the commercial refrigeration sector (UNDP component)	168,216	21,868	UNDP

2. The Fund Secretariat recommends that approval of the projects be subject to any decision of the Executive Committee at the 20th Meeting in relation to the differences between sectoral consumption data reported in a country programme and data in a project.