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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-first Meeting
Geneva, 5-7 July 2000

PROJECT PROPOSAL: VIETNAM

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

Aerosol

• Phase-out of CFC-12 in the manufacture of perfumes by conversion to hydrocarbon propellants at Nam Do Corporation	UNDP

PROJECT EVALUATION SHEET
VIETNAM

SECTOR: Aerosol ODS use in sector (1998): 180 ODP tonnes

Sub-sector cost-effectiveness thresholds: Hydrocarbon US $4.40/kg

Project Titles:

(a) Phase-out of CFC-12 in the manufacture of perfumes by conversion to hydrocarbon propellants at Nam Do Corporation

Project Data	**Filling plant**
	Nam Do
Enterprise consumption (ODP tonnes)	11.30
Project impact (ODP tonnes)	11.30
Project duration (months)	36
Initial amount requested (US $)	49,720
Final project cost (US $):	
Incremental capital cost (a)	76,500
Contingency cost (b)	7,650
Incremental operating cost (c)	-23,166
Total project cost (a+b+c)	60,984
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US $)	49,720
Cost effectiveness (US $/kg.)	4.40
Counterpart funding confirmed?	Yes
National coordinating agency	Hydro Meteorological Services
Implementing agency	UNDP

Secretariat's Recommendations	
Amount recommended (US $)	49,720
Project impact (ODP tonnes)	11.30
Cost effectiveness (US $/kg)	4.40
Implementing agency support cost (US $)	6,464
Total cost to Multilateral Fund (US $)	56,184

PROJECT DESCRIPTION

Phase-out of CFC-12 in the manufacture of perfumes by conversion to hydrocarbon propellants at Nam Do Corporation

1. The total consumption of CFCs in the aerosol sector in Vietnam was estimated at 200 tonnes in 1993, and 180 tonnes in 1998. The Executive Committee has approved three investment projects for the phase out of 192 tonnes of CFCs used in the manufacturing of aerosol products and has allocated about US $633,900 for their implementation. The Government of Vietnam is in the process of completing a survey on small aerosol fillers (about 15 plants) and studying the feasibility of creating a filling centre to cater to the needs of these fillers.

2. The Government of Vietnam is submitting a project covering a small aerosol filling enterprise which would lead to elimination of 11.3 tonnes of CFC-12. The project is for the replacement of CFCs with hydrocarbon propellant (HAP) used in manufacturing different sizes of aerosol perfumes (a total of 1.19 million bottles/year).

3. The present aerosol filling operations are performed at each enterprise with two manual perfume filling lines comprising two product fillers, two crimpers and two propellant gassing units. Conversion to HAPs technology entails installation of semi-automatic aerosol filling machine, manual-operated locally made water bath for testing filled cans, equipment for fire control, portable gas detectors, explosion proof fans and electrical connections. The filling line will be located in an open-air filling room with gas detectors and a control panel. The size of the replacement equipment is related to the production capacity of the plants.

4. Technical assistance will be provided for developing new formulations, technology transfer and plant safety training.

5. The company has provided a letter of commitment stating that the project could be submitted by UNDP to the Executive Committee; it accepts the project as proposed in the project document; it will completely phase out the use of CFCs upon project completion; dispose of any equipment that has been replaced; provide funds for items that are included in the project but are specifically excluded from funding by the Multilateral Fund, and will allow monitoring inspections by UNDP during project implementation.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

6. The Secretariat requested UNDP for clarification regarding the remainder for the CFC-based aerosol sector in the country, taking into account that the total amount of CFCs covered by the three projects already approved and the project submitted to the 31st Meeting of the Executive Committee is over 200 tonnes of CFCs (e.g., the entire aerosol sector in the country). The progress report (as of December 1999) submitted by the implementing agencies to the 31st

Meeting of the Executive Committee reported that two projects have been completed with 107 ODP tonnes already phased out (Saigon Cosmetics and Daso enterprises). UNDP informed the Secretariat that conversion to HAP technology at CP&T plant is still under implementation; it is expected that the plant will be fully operational (non-CFC) by the end of 2000. In total, US $575,000 has been disbursed.

7. The Government of Vietnam identified 15 SMEs in the aerosol sector (perfumes). The amount of CFCs used by these enterprises is not known, since they purchase CFC-12 in small cylinders (13.6 kg capacity) which are used in the refrigeration servicing sector. However, based on discussions with the major aerosol manufactures, each of the SMEs identified use less than 11 tonnes.

8. Operating savings realized for the conversion to HAP technology (NPV for four years) were estimated at US $23,166. UNDP informed the Secretariat that the price of the imported HAP was US$ 2.80 (including costs associated with transportation from the USA, handling and off-loading from the container to the storage tank in the plants); the current low-price of CFC-12 (US $2.1/kg) was a result of aggressive marketing campaigns by CFC manufacturers.

RECOMMENDATION

9. The Fund Secretariat recommends blanket approval of the project at the funding level indicated below:

	Project Title	Project Funding (US$)	Support Cost (US$)	Implementing Agency
(a)	Phase-out of CFC-12 in the manufacture of perfumes by conversion to hydrocarbon propellants at Nam Do Corporation	49,720	6,464	UNDP
