



**United Nations
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Programme**



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

Twenty-first Meeting
Montreal, 18-20 February 1997

PROJECT PROPOSAL: LEBANON

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

Foam

- Phasing out CFC-11 at E.T.S. Henri Abdallah P.F.M.

UNIDO

**PROJECT EVALUATION SHEET
LEBANON**

SECTOR: FOAM ODS use in sector (1993): 88 ODP tonnes

Sub-sector cost-effectiveness thresholds: US \$6.23/kg

Project Title:

Phasing out CFC-11 at E.T.S. Henri Abdallah P.F.M.

Project Data	FOAM
	E.T.S. Henri Abdallah P.F.M.
ODS phase-out (ODP tonnes)	16.57
Proposed project duration (Yrs)	1.0
Incremental capital cost (US \$)	102,850
Contingency (%)	10
Incremental operational cost/(savings) (US \$)	(3,595)
Total project cost (US \$)	99,255
Local ownership (%)	100
Export component (%)	0
Amount requested (US \$) {Original}	\$99,255
{Revised}	\$81,291
Cost effectiveness (US \$/kg)	5.99
National Coordinating Agency	Ministry of Environment
Implementing Agency	UNIDO
Technical review completed?	YES

Secretariat's Recommendations:	
Amount recommended (US \$)	81,291
Project impact (ODP tonnes)	16.57
Cost effectiveness (US \$/kg)	4.90
Implementing Agency support cost (US \$)	10,568
Total cost to Multilateral Fund (US \$)	91,859

PROJECT DESCRIPTION

Phasing out CFC-11 at E.T.S. Henri Abdallah P.F.M.

1. E.T.S. Henri Abdallah P.F.M. is the last of seven flexible slabstock polyurethane foam enterprises in Lebanon that need to phase-out the use of ODS in their foam production. Projects have been approved (at the 20th Executive Committee Meeting) for six enterprises - five to be implemented by the Government of France and one by UNIDO.

2. Henri Abdallah manufactures flexible slabstock polyurethane foam for the furniture industry and also manufactures its own brand of mattresses. Its installed capacity is 2,000 - 3,000 tonnes with current output of 1,000 tonnes. The company operates a low pressure conventional type Laader Berg slabstock machine installed in 1973. The production line is in relatively good condition with expected useful life after conversion of at least 10 years. The block storage and block cure areas were destroyed by fire in November 1994 and are being rebuilt. The production machine, however, was only severely smoke stained and has been returned to full usage.

3. During the conversion from the use of CFC-11 to methylene chloride, the existing foaming machine will remain unchanged. The conversion will involve improvement in the ventilation enclosure around the foaming machine and upgrading of the ventilation around it and in the cure area, to ensure efficient extraction of methylene chloride fumes from the work area. The existing metering pump will also be replaced with one suitable for use of methylene chloride.

4. The capital items of conversion of the project include the methylene chloride metering pump (US \$15,000), construction of machine enclosure and provision of additional ventilation in the machine area (US \$43,500), extra ventilation in cure area (US \$8,000), safety devices (US \$7,000), commissioning, start-up, technology transfer and training (US \$20,000). The project has incremental operational savings.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

1. The project was discussed between the Fund Secretariat and UNIDO and agreed.

2. Following a review of the parameters on which the calculation of the incremental operational savings was based, it became necessary for UNIDO to recalculate the incremental operational savings, resulting in US \$21,559 instead of US \$3,595 originally indicated in the project document. Hence, with incremental capital cost of US \$102,850 and incremental operational savings of US \$21,559, the total project cost became US \$81,291.

RECOMMENDATION

The Fund Secretariat recommends blanket approval of the project with the funding level and associated support cost as indicated below.

<u>Project Title</u>	<u>Project Cost</u> <u>US \$</u>	<u>Support</u> <u>Cost US \$</u>	<u>Implementing</u> <u>Agency</u>
Phasing out CFC-11 at E.T.S. Henri Abdallah P.F.M.	81,291	10,568	UNIDO