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

PROJECT PROPOSALS: LIBYA

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

Foam:

• Phase out of CFC-11 by conversion to methylene chloride (MC) in the manufacture of flexible polyurethane foam at Hilal Africa	UNDP
• Phase out of CFC-11 by conversion to methylene chloride (MC) in the manufacture of flexible polyurethane foam at Tasharoukiate Essadek	UNDP

PROJECT EVALUATION SHEET
LIBYA

SECTOR: Foam ODS use in sector (2000): 987.34 ODP tonnes

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

Project Titles:

(a) Phase out of CFC-11 by conversion to methylene chloride (MC) in the manufacture of flexible polyurethane foam at Hilal Africa
(b) Phase out of CFC-11 by conversion to methylene chloride (MC) in the manufacture of flexible polyurethane foam at Tasharoukiate Essadek

Project Data	**Flexible slabstock**	**Flexible slabstock**
	Hilal Africa	**Tasharoukiate**
Enterprise consumption (ODP tonnes)	22.00	32.00
Project impact (ODP tonnes)	22.00	32.00
Project duration (months)	36	36
Initial amount requested (US $)	137,060	151,762
Final project cost (US $):		
Incremental capital cost (a)	114,900	122,000
Contingency cost (b)	11,490	12,200
Incremental operating cost (c)	-12,663	-5,091
Total project cost (a+b+c)	113,727	129,109
Local ownership (%)	100%	100%
Export component (%)	0%	0%
Amount requested (US $)	113,727	129,109
Cost effectiveness (US $/kg.)	5.17	4.03
Counterpart funding confirmed?	Yes	Yes
National coordinating agency	Ministry of Environment and Climate Changes	
Implementing agency	UNDP	UNDP

Secretariat's Recommendations		
Amount recommended (US $)	113,727	129,109
Project impact (ODP tonnes)	22.00	32.00
Cost effectiveness (US $/kg)	5.17	4.03
Implementing agency support cost (US $)	14,785	16,784
Total cost to Multilateral Fund (US $)	128,512	145,893

PROJECT DESCRIPTION

Sector Background*

- Latest available total ODS consumption (2000)	1,182.54 ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	716.7 ODP tonnes
- Consumption of Annex A Group I substances for the year 2000	987.34 ODP tonnes
- Baseline consumption of CFCs in foam sector	Not Available
- Consumption of CFCs in foam sector in 2000**	853.52 ODP tonnes
- Funds approved for investment projects in foam sector as of end of 2000	US $482,569
- Quantity of CFC to be phased out in investment projects in foam sector as of end of 2000	113.00 ODP tonnes
- Quantity of CFC phased out from approved investment projects in the foam sector as of end of 2000	Newly approved
- Quantity of CFCs in approved investment projects in the foam sector not yet completed as of end of 2000	113.00 ODP tonnes
- Quantity of CFCs remaining to be phased out in the foam sector as of end of 2000	740.52 ODP tonnes

*Based on data reported by the Government of Socialist Peoples Libyan Arab Jamahirya to the Fund Secretariat on 16 July 2001

**Includes CFC-11 used in foams for water heaters and refrigeration.

Flexible Slabstock Foam

Hilal Africa and Tasharoukiate Essadek

1. Tasharoukiate Essadek was established in 1963 and Hilal Africa in 1993. In 2000, the companies consumed a total of 54.0 tonnes of CFC-11 (22 tonnes by Hilal and 32 tonnes by Tasharoukiate) in the manufacture of slabstock flexible polyurethane foam to produce mattresses and furniture. The two companies will eliminate a total of 54.0 tonnes of CFC-11 by converting to methylene chloride (MC) technology.

2. Each factory has only one locally made manual box foaming machine with capacity of 150 kg/batch. Tasharoukiate Essadek commissioned its machine in 1990 and Hilal Africa in 1993.

3. Tasharoukiate Essadek intends to switch its production from discontinuous (boxfoam) to continuous (Maxfoam) production after conversion. However the eligible cost of the conversion is based on the baseline boxfoam equipment, which includes the cost of machine enclosure, ventilation, methylene chloride storage tank and metering systems for a total of US $95,000. Hilal Africa will convert to the use of standard automatic boxfoam machine for which it will contribute 33% of the cost of the machine of US $70,000. In addition, ventilation, methylene chloride tank and metering systems will be installed at a total cost of US $41,000. The cost for training and technical assistance for each enterprise is claimed to be US $19,000. These will

result in incremental capital costs of US $149,600 and US $154,000 for Hilal and Tasharoukiate respectively. There will be incremental operational savings of US $9,319 and US $2,238 for Hilal Africa and Tasharoukiate Essadek respectively.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

4. The two projects for the conversion of the manual boxfoam operations were discussed between the Secretariat and UNDP following which the components and project costs were brought in line with similar projects being submitted for consideration as well as those approved and being implemented in other Article 5 countries. The revised costs are reflected in the project costs which have been agreed.

Consumption data

5. As at the time of dispatch of documentation the information available to the Fund Secretariat from the Ozone Secretariat was that Libya had not reported consumption data for 1999 and that the latest data reported was for 1997. The Secretariat drew attention of the implementing agency (UNDP) to the absence of this data.

6. Subsequently, the Secretariat received communication from the Government of Socialist Peoples Libyan Arab Jamahirya which indicated the country's ODS consumption as follows:

Substance	1998 ODP tonnes	1999 ODP tonnes	2000 ODP tonnes
Annex A Group I	660.00	895.82	1,041.72
Annex A Group II	141.50	51.50	54.38
Annex C (HCFC-22)	11.53	10.54	11.21
Annex E	0	122.50	129.61
Total	813.03	1,080.36	1,236.92

The amount of 54 tonnes of CFC-11 to be phased out in the two projects shows consistency with Libya's foam sector consumption of Annex A Group I substances and the projects are being recommended for blanket approval.

Actions on relevant sections of Decision 33/2

7. UNDP informed the Secretariat that it had not received validation of the CFC consumption to be phased out in the projects and/or commitment of the Government of Libyan Arab Jamahirya as required under Decision 33/2 (c) of the Executive Committee.

RECOMMENDATIONS

8. The Fund Secretariat recommends blanket approval of the Hilal Africa and the Tasharoukiate Essadek projects with the funding levels and associated support costs indicated below.

	Project Title	Project Funding (US$)	Support Cost (US$)	Implementing Agency
(a)	Phase out of CFC-11 by conversion to methylene chloride (MC) in the manufacture of flexible polyurethane foam at Hilal Africa	113,727	14,785	UNDP
(b)	Phase out of CFC-11 by conversion to methylene chloride (MC) in the manufacture of flexible polyurethane foam at Tasharoukiate Essadek	129,109	16,784	UNDP