**UNITED NATIONS** **EP**

**United Nations Environment Programme**

Distr.
LIMITED

UNEP/OzL.Pro/ExCom/27/20
19 February 1999

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE
OF THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-seventh Meeting
Montreal, 24-26 March 1999

# PROJECT PROPOSALS: ALGERIA

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

Foam

| | | |
|---|---|---|
| • | Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at King's Matelas | UNIDO |
| • | Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Matelas Atlas (SAM ATLAS) | UNIDO |

## PROJECT EVALUATION SHEET
## ALGERIA

SECTOR: FOAM ODS use in sector (1996): 400 ODP tonnes

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

***Project Titles***:
(a) Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Kings' Matelas.
(b) Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Matelas Atlas (Sam Atlas).

| **Project Data** | **Flexible** | |
|---|---|---|
| | King's Matelas | Matelas Atlas (Sam Atlas) |
| ODS phase-out (ODP tonnes) | 20 | 22 |
| Proposed project duration (months) | 12 | 12 |
| Incremental capital cost (US $) | 134,900 | 158,000 |
| - including contingency (%) | 9 | 9 |
| Incremental operational cost (US $) | (19,721) | (32,940) |
| Total project cost (US $) | 115,179 | 125,060 |
| Local ownership (%) | 100 | 100 |
| Export component (%) | 0 | 0 |
| Amount requested (US $) {Original} | 115,179 | 125,060 |
| {Revised} | | |
| Cost effectiveness (US $/kg) | 5.75 | 5.69 |
| National Coordinating Agency | Secrétariat d'État à L'Environnement | |
| Implementing Agency | UNIDO | |
| Technical review completed? | Yes | |

| ***Secretariat s Recommendations:*** | | |
|---|---|---|
| Amount recommended (US $) | 110,179 | 120,060 |
| Project impact (ODP tonnes) | 20 | 22 |
| Cost effectiveness (US $/kg) | 5.51 | 5.46 |
| Implementing Agency support cost (US $) | 14,323 | 15,608 |
| Total cost to Multilateral Fund (US $) | 124,502 | 135,668 |

## PROJECT DESCRIPTION

**(a) Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Kings Matelas.**
**(b) Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Matelas Atlas (Sam Atlas).**

Sector Information

1. Baseline consumption (average 1995-1997) of Annex A Group I controlled substances (CFCs) reported to the Ozone Secretariat: 2,070 ODP tonnes.

2. As of November 1998 the amount of US $1.96 million had been approved for projects to phase out 423 tonnes CFC in the foam sector. US 0$.86 million had been disbursed, no CFC had been phased out.

3. The project documents indicate that the flexible polyurethane foams sub-sector in Algeria consists of about 40 manufacturers who are responsible for consumption of CFC-11 in the sub-sector. The total consumption of the sub-sector in 1996 is reported to be 400 tonnes, about 15% of the country's ODS consumption for that year:

4. The total installed production capacity for flexible slabstock foam in the country is reported to be about 40,000 tonnes per year. The current production is about 25,000 tonnes per year, largely due to the relative high cost of materials and hence prices of the product and the economic situation in Algeria.

Impact of Projects on Country's Montreal Protocol Obligations

5. The project documents indicate as follows:

> When implemented as scheduled (in 12 months), CFC consumption eliminated from the foam sector by King's Matelas and Matelas Atlas, which currently constitute about 5% and 5.5% respectively of the country's consumption, will contribute to the country's 1999 CFC consumption freeze. However when taken against the country's baseline CFC consumption the impact of the project represents a reduction of 2% of the CFC baseline consumption.

**(a) Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Kings Matelas.**

6. King's Matelas will phase out the use of 20 tonnes of CFC-11 in the manufacture of flexible polyurethane foam. The production is to be converted to methylene chloride based technology. The company will install a methylene chloride storage and metering system on a discontinuous production line (US $35,000), a storage and metering system for a softening additive (US $14,000), will upgrade the enclosure and ventilation of the production line and hall (US $40,000), and will install methylene chloride detectors and safety devices (US $10,000) for

the flexible foam machine. Other costs include trials (US $10,000) and technology transfer (US $15,000). The project has incremental operating savings of US $19,721.

**(b) Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Matelas Atlas (Sam Atlas).**

7. Matelas Atlas (Sam Atlas) will phase out the use of 22 tonnes of CFC-11 in the manufacture of flexible polyurethane foam. The production is to be converted to methylene chloride based technology. The company will install a methylene chloride storage and metering system on its discontinuous production line (US $45,000), storage and metering systems for a softening additive (US $15,000). It will also upgrade the enclosure and ventilation of the production line and hall (US $45,000), and will install methylene chloride detectors and safety devices (US $10,000) for the flexible foam machine. Other costs include trials (US $15,000) and technology transfer (US $15,000). The incremental operating savings of US $32,940.

## SECRETARIAT S COMMENTS AND RECOMMENDATIONS

### COMMENTS

1. The two projects have been agreed between the Secretariat and UNIDO. The cost of technology transfer and training were agreed as US $10,000 per project instead of US $15,000.

### RECOMMENDATIONS

1. The Fund Secretariat recommends blanket approval of the King's Matelas and Matelas Atlas projects with the funding levels and associated support costs as indicated below.

| Project Title | Project Cost US $ | Support Cost US $ | Implementing Agency |
|---|---|---|---|
| Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Kings' Matelas. | 110,179 | 14,323 | UNIDO |
| Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Matelas Atlas (Sam Atlas). | 120,060 | 15,608 | UNIDO |