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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Thirty-eighth Meeting  
Rome, 20-22 November 2002

**PROJECT PROPOSALS: LEBANON**

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

Fumigant:

- Phase-out of methyl bromide in the vegetables, cut flowers, and tobacco production: release of second tranche UNDP
- Phase-out of methyl bromide (strawberries): release of second tranche UNIDO

**PROJECT EVALUATION SHEET  
LEBANON**

SECTOR: Fumigant ODS use in sector (2000): 236.4 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

**Project Titles:**

- (a) Phase-out of methyl bromide in the vegetables, cut flowers, and tobacco production: release of second tranche  
(b) Phase-out of methyl bromide (strawberries): release of second tranche

<b>Project Data</b>	<b>Methyl bromide</b>	<b>Methyl bromide</b>
Enterprise consumption (ODP tonnes)		
Project impact (ODP tonnes)	31.80	10.10
Project duration (months)	12	12
Initial amount requested (US \$)	600,000	421,946
Final project cost (US \$):		
Incremental capital cost (a)		
Contingency cost (b)		
Incremental operating cost (c)		
Total project cost (a+b+c)		
Local ownership (%)	100%	100%
Export component (%)	0%	0%
<b>Amount requested (US \$)</b>	<b>600,000</b>	<b>421,946</b>
Cost effectiveness (US \$/kg.)		
Counterpart funding confirmed?		
National coordinating agency		
Implementing agency	UNDP	UNIDO

<b>Secretariat's Recommendations</b>		
Amount recommended (US \$)	600,000	421,946
Project impact (ODP tonnes)	31.80	10.10
Cost effectiveness (US \$/kg)		
Implementing agency support cost (US \$)	76,000	54,853
Total cost to Multilateral Fund (US \$)	676,000	476,799

## PROJECT DESCRIPTION

1. At its 34<sup>th</sup> Meeting, the Executive Committee approved in principle US \$4,421,945 as the total funds that would be available to the Government of Lebanon to achieve the complete phase-out of methyl bromide (MB) used as a soil fumigant in the production of vegetables, cut flowers, tobacco and strawberries (236.5 ODP tonnes).
2. In accordance with the agreed conditions, the Executive Committee has so far allocated US \$800,000 for UNDP to phase out 25.8 ODP tonnes used in the production of vegetables, cut flowers and tobacco, and US \$350,000 for UNIDO to phase out 6.0 ODP tonnes in the production of strawberries.
3. The Government of Lebanon has submitted a funding request for implementation of the second phase of the project, as follows:
  - (a) US \$600,000 to phase out an additional 36.0 ODP tonnes used in the production of vegetables, cut flowers and tobacco, under UNDP's implementation. The proposed activities include, inter alia,:
    - (i) Follow-up on the training of trainers programme on alternative techniques related to the cut flower and tobacco sectors, and organisation of farmers training sessions in all sectors;
    - (ii) On-going field operations that commenced in 2002 by the project site engineers including the monitoring of activities launched in the vegetables sector; selection of farms to be included in the 2003 programme; selection of MB alternative technologies by farmers; and, supervision of farmers trained in 2002 to ensure the proper application of alternatives;
    - (iii) Procurement of equipment items for the application of proposed alternatives through a request for bids at the local and international levels;
  - (b) US \$421,946 to phase out an additional 10.1 ODP tonnes used in the production strawberries, under UNIDO's implementation. The proposed activities include, inter alia,:
    - (i) Application of soil steaming in combination with an integrated pest management programme in strawberry farms and the establishment of a team for the maintenance of the steam equipment;
    - (ii) Implementation of training and orientation sessions for trainers, strawberry farmers and project extensionists on soil steaming and application of integrated pest management principles; and

- (iii) Continuation of the efforts to assure project sustainability in the future and study of backup alternative for steaming; and
- (c) Co-ordination with the Ministry of Agriculture and the Ministry of Environment in order to draft new legislation that would limit and then ban the imports of MB in the future.

## **SECRETARIAT'S COMMENTS AND RECOMMENDATIONS**

### **COMMENTS**

4. The Government of Lebanon submitted a comprehensive report on the implementation of Phase I of the project. It was reported that in 2002, a total of 96.5 ha used in the production of vegetables, cut flowers and tobacco were converted to the use of alternative technologies, resulting in the phase out of 26.0 ODP tonnes (over the expected phase out target).

5. It was also reported that in 2002, a total of 6 ODP tonnes of MB used in strawberry farms were phased out through the application of integrated pest management principles (crop and land rotation, and reduced MB application rates), rather than the use of steam, since delivery of the steaming machines had been delayed. Training programmes and awareness campaigns on MB related issues including soil steaming and the application of integrated pest management principles, were provided to farmers and project extensionists. Discussion sessions were also organised with farmers, project extensionists and key persons in the Government to achieve the long-term sustainability of the project. It was indicated that the US \$350,000 allocated for 2002 would be totally spent by the end of 2002.

6. In 2002, meetings between the Ministry of Agriculture and the Ministry of Environment were held to establish relevant legislation that would limit imports of MB until it is phased out by the end of 2006.

7. The Secretariat noted that the phase out of MB in strawberry farms was achieved through the application of an integrated pest management programme since the equipment proposed for the implementation of steam was not delivered on time. In this regard it sought a clarification from UNIDO on whether the total amount of MB reported in the original project proposal was over-estimated and on the feasibility of achieving substantial reductions in the consumption of MB through the implementation of integrated pest management principles prior to any investment in equipment. In this regard, UNIDO informed the Secretariat that poor agricultural practices have occurred in the past (high dosage rates applied, inappropriate treatment based on the type of soil, or over-estimation of the degree of infestation), which resulted in large amounts of MB being used. Through the training programme, it was possible to rationalise the consumption of MB and, therefore, achieving a phase out of 6.0 ODP tonnes. However, further reductions in MB consumption will only be possible by introduction of the steam technology.

**RECOMMENDATIONS**

8. The Fund Secretariat recommends blanket approval of the two project sub-components (UNDP and UNIDO) with associated support costs at the funding levels shown in the table below:

	<b>Project Title</b>	<b>Project Funding (US\$)</b>	<b>Support Cost (US\$)</b>	<b>Implementing Agency</b>
(a)	Phase-out of methyl bromide in the vegetables, cut flowers, and tobacco production: release of second tranche	600,000	76,000	UNDP
(b)	Phase-out of methyl bromide (strawberries): release of second tranche	421,946	54,853	UNIDO

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