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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Forty first Meeting  
Montreal, 17 -19 December 2003

**PROJECT PROPOSAL: MALAYSIA**

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

Fumigant

- Technology transfer programme for phase out of remaining non-QPS uses of methyl bromide

UNDP

**PROJECT EVALUATION SHEET  
MALAYSIA**

SECTOR: Fumigant ODS use in sector (2002): 47.2 ODP tonnes excluding QPS

Sub-sector cost-effectiveness thresholds: n/a

**Project Title:**

(a) Technology transfer programme for phase out of remaining non-QPS uses of methyl bromide

<b>Project Data</b>	<b>Fumigant</b>
	<b>Methyl bromide</b>
Enterprise consumption (ODP tonnes)	47.2
Project impact (ODP tonnes)	47.2
Project duration (months)	60
Initial amount requested (US \$)	778,250
Final project cost (US \$):	
Incremental capital cost (a)	707,500
Contingency cost (b)	70,750
Incremental operating cost (c)	
Total project cost (a+b+c)	778,250
Local ownership (%)	100%
Export component (%)	0%
<b>Amount requested (US \$)</b>	<b>778,250</b>
Cost effectiveness (US \$/kg.)	16.4
Counterpart funding confirmed?	
National coordinating agency	Ozone Protection Unit
Implementing agency	UNDP

<b>Secretariat's Recommendations</b>	
Amount recommended (US \$)	
Project impact (ODP tonnes)	
Cost effectiveness (US \$/kg)	
Implementing agency support cost (US \$)	
Total cost to Multilateral Fund (US \$)	

## PROJECT DESCRIPTION

1. The project is to phase out 47.2 ODP tonnes of methyl bromide (MB) used for stored grains, stored timber (non-QPS applications) and perishable products, turf nurseries and golf courses in Malaysia.
2. According to the MB consumption data reported by the Government of Malaysia under Article 7, the MB baseline for Malaysia is 14.6 ODP tonnes; MB controlled uses for 1997 to 1999 was zero; in 2000 and 2001, MB consumption increased to 60.6 and 72.1 ODP tonnes, respectively. For 2002 (according to the data in the project proposal), controlled uses of MB decreased to 8.8 ODP tonnes, some 3.0 ODP tonnes below Malaysia's 2005 allowable MB consumption.
3. The main controlled uses of MB in Malaysia includes durable commodities, timber products and structures, soil fumigation for turf nurseries and golf courses and fumigation of perishables products.
4. Importation of MB is controlled by the Pesticide Board of the Department of Agriculture and its use is regulated by the Ministry of Health through registration by the Pesticide Board.
5. The project proposal includes the following actions:
  - (a) Development of a National Advisory and Consultative Group, to review and approve project activities, evaluate the results of the pilot technology transfers and make recommendations;
  - (b) Pilot technology transfer programme to identify the most suitable alternatives. In the stored timber sector, the leading alternatives have been identified; for other stored products and in the soil sector, alternatives will be transferred from other countries and adapted to local conditions;
  - (c) Training programme for MB users, including an initial training for the pilot stage, training of trainers, and training of all MB users, including relevant golf managers and store managers; and,
  - (d) Development and implementation of policy options that restrict the use and phase out of MB.
6. The total project cost is US \$778,250, with a cost effectiveness of US \$88.27/kg based on the 2002 MB consumption (or US \$16.49/kg based on the 2000-2002 average consumption).
7. The project implementation time is five years.

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

8. During the period 1997-1999, no MB was imported into Malaysia. Therefore, the 2003-2005 phase-out plan of the Multilateral Fund did not include any amount of MB for phase out for Malaysia. However, a technical assistance programme for the phase out of 36 ODP tonnes of MB in Malaysia was included in the UNDP business plan for 2003, at a total cost of US \$218,000. Accordingly, the Secretariat reviewed the proposal as a technical assistance programme rather than an investment project.

9. The Secretariat sought an explanation for the large amount of MB imported in 2000 and 2001 (60.6 and 72.1 ODP tonnes, respectively) compared to zero consumption for the period 1997-1999. UNDP indicated that consumption in 2000 and 2001 increased substantially due to demand for MB in stored timber, stored products and golf courses. It is likely that some of the MB imported in 2000-2001 was carried over and used in 2002, accounting for part of the reduction in imports in 2002. Uses of MB fluctuate from year to year, depending on weather, pest pressures and user's needs; as a result, the relatively low MB import in 2002 is not a reliable indicator of the actual need. The average consumption of the last three years (47 ODP-tonnes) provides a more realistic picture of average use.

10. According to the data presented in the project proposal, the 2002 MB consumption is above the baseline for compliance.

#### Demonstration project

11. At its 29<sup>th</sup> Meeting, the Executive Committee approved a project proposal on alternatives to the use of MB on Malaysian timbers (representing 85 per cent of the total MB consumption in the country), on the understanding that the demonstration project would be implemented in one year, and would be followed by an investment project for the total phase-out of MB in the application (Decision 29/57).

12. The objectives of the project were to demonstrate the efficacy of technologies replacing MB disinfestation of timber (mainly sulfuryl fluoride and phosphine) and to provide extensive training and re-training for quality control inspectors. Prior to the approval of the project, several issues were discussed between the Fund Secretariat and UNDP. Regarding the issue of the availability of sulfuryl fluoride, the Secretariat was advised that the manufacturer of sulfuryl fluoride had agreed to participate in the demonstration project.

13. Based on the above observations, the Secretariat sought additional information on the status of implementation of the demonstration project, including the results of the alternatives demonstrated, the registration of alternative chemicals to MB, and the training and re-training programmes. In this regard, UNDP indicated that the demonstration project incurred some delays due to a number of procedural issues. Initially, plans were made to test sulfuryl fluoride, but considerable time was spent developing a protocol for permitting use of the chemical; in the meantime, the project coordinator decided to focus on other alternative technologies in order to make progress, particularly use of cyanogen.

14. The demonstration project carried out to date has identified the following treatments for stored timber: kiln heat treatment (which requires about 40 days), cyanogen, sulfuryl fluoride or phosphine combined with heat. The installation of these alternatives for stored timber would require improved sealing (improved gas tightness) of existing kiln facilities so that fumigants can be used effectively.

Issues related to the project submitted to the 41<sup>st</sup> Meeting

15. The Secretariat raised a number of cost and other issues with UNDP including: the technology proposed for the phase out of 0.09 ODP tonnes of MB used in for treatment of turf for golf courses; costs associated with international and national consultants and the training programme, in light of the demonstration project already implemented, and; the incremental costs for replacing MB with aluminum phosphide (which is the preferred method for protecting stored grain facilities around the world). The Secretariat also noted that the cost of the project proposal was 3.5 times higher than the level of funding included in the UNDP 2003 business plan.

16. The Secretariat and UNDP are still discussing outstanding issues. Outcomes of the discussion will be communicated to the Executive Committee prior to the 41<sup>st</sup> Meeting.

**RECOMMENDATION**

17. Pending.