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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Forty-third Meeting  
Geneva, 5-9 July 2004

**PROJECT PROPOSAL: MALAYSIA**

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

Fumigant

- Technical assistance programme to install alternatives and phase-out all remaining non-QPS uses of methyl bromide UNDP

**PROJECT EVALUATION SHEET  
MALAYSIA**

SECTOR: Fumigant ODS use in sector (2003): 8.7 ODP tonnes excluding QPS

Sub-sector cost-effectiveness thresholds: n/a

**Project Title:**

- (a) Technical assistance programme to install alternatives and phase-out all remaining non-QPS uses of methyl bromide

<b>Project Data</b>	<b>Fumigant</b>
	<b>Methyl bromide</b>
Enterprise consumption (ODP tonnes)	n/a
Project impact (ODP tonnes)	8.7
Project duration (months)	54
Initial amount requested (US \$)	325,000
Final project cost (US \$):	
Incremental capital cost (a)	
Contingency cost (b)	
Incremental operating cost (c)	
Total project cost (a+b+c)	325,000
Local ownership (%)	100%
Export component (%)	0%
<b>Amount requested (US \$)</b>	
Cost effectiveness (US \$/kg.)	37.35
Counterpart funding confirmed?	n/a
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**

### Introduction

1. At the 41<sup>st</sup> Meeting of the Executive Committee the Government of Malaysia submitted a project proposal for the phase-out of 47.2 ODP tonnes of methyl bromide (MB) used for stored grains, stored timber and perishable products, turf nurseries and golf courses (UNEP/Oz.L.Pro/ExCom/41/45 and Corr.1). Subsequent to the dispatch of meeting documents to members of the Executive Committee, UNDP requested that the project be deferred until outstanding issues related to QPS and non-QPS MB applications had been addressed by relevant authorities in Malaysia.
2. The Government of Malaysia has addressed outstanding issues regarding controlled uses of MB, and has submitted a revised project proposal as a technical assistance programme to install alternative technologies to phase-out 8.7 ODP tonnes of MB, representing all remaining non-QPS uses of MB. The MB baseline for compliance for Malaysia is 14.6 ODP tonnes.
3. The main controlled uses of MB in Malaysia include stored grains and timber (92 per cent of total consumption of 108 ODP tonnes), soil fumigation for turf nurseries and golf courses (one per cent) and fumigation of other products and structures (7 per cent). The main QPS uses (about 100 ODP tonnes) are for exported timbers and other wood base products, control of quarantine pests (especially Khapra beetle), and fumigation of warehouses and grain processing centres.
4. The project proposal includes the following strategic actions:
  - (a) Coordination, through the expansion of Malaysia's MB Technical Committee, of all issues related to the phase-out of MB, to review and approve project activities, evaluate the results of the pilot technology transfers and make recommendations;
  - (b) Pilot the technology transfer programme to identify the most suitable alternatives. For the stored timber sector, the proposed technologies are kiln heat treatment, cyanogen or phosphine combined with kiln heat treatment. For turf nurseries and golf courses, the alternatives are dazomet, cyanogen and steam. For fumigation of structures, the alternatives are phosphine combined with CO<sub>2</sub> and heat, sulfuryl fluoride, and heat treatments in combination with integrated pest management (IPM) techniques. For stored products and structures, pilot tests with phosphine, other fumigants, modified atmospheres, insecticides, and IPM techniques will be tested prior to making a decision on which alternative(s) will be adopted;
  - (c) Training programme for MB users, covering 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.

5. The total project cost is US \$325,000, with a cost-effectiveness of US \$37.35/kg based on the 2002 MB consumption. The duration of project implementation is 4.5 years.

6. In order to support the sustainability of the project and the complete phase-out of non-QPS applications of MB in Malaysia, it is also proposed to conduct a national review to determine the effectiveness of the existing legislation. Based on the outcome of the review, policy options may then be proposed to ensure sustainability of phase-out efforts.

## **SECRETARIAT'S COMMENTS AND RECOMMENDATION**

### **COMMENTS**

7. A survey on MB consumption in Malaysia was completed in 2003 which provided the most up-to-date official figures for past and present MB uses in all sectors in Malaysia. According to the survey, MB consumption has increased from 24 ODP tonnes in 1994 to 108 ODP tonnes in 2002; during the period 2000 to 2002, about 100 ODP tonnes were used for QPS applications and 8.7 ODP tonnes for controlled uses of MB. Based on the results of the survey, the Government of Malaysia sent an official communication to the Ozone Secretariat with the revised MB consumption data, indicating MB uses for QPS and non-QPS applications. Accordingly, in 2002 the Government of Malaysia reported to the Ozone Secretariat a MB consumption of 8.8 ODP tonnes.

#### Alternative chemicals and equipment

8. It is reported in the project proposal that several of the chemicals that have been identified as alternatives to the use of MB have not been yet registered in Malaysia. The MB demonstration project on alternatives to the use of MB on Malaysian timbers, approved at the 29<sup>th</sup> Meeting of the Executive Committee, was to demonstrate the effectiveness of sulfuryl fluoride and phosphine in timber; however, sulfuryl fluoride is not yet registered in the country.

9. In this regard, the Secretariat solicited additional information on whether the proposed alternative chemicals to MB have already been registered in Malaysia and whether they are currently available in the country. Subsequently, UNDP reported that only phosphine (alone) and dazomet are registered and available in Malaysia. Mixtures of phosphine with other gases may need further registration; small amounts of cyanogen were imported to be used in the demonstration project but registration is required before it can be used commercially; and sulfuryl fluoride would require registration. UNDP also indicated that the authorities in the Crop Protection and Plant Quarantine Services Division of the Department of Agriculture are well aware of the need to register additional MB alternatives, and will be actively involved in assisting in the registration of alternative products as appropriate.

10. Notwithstanding that the project has been developed as a technical assistance programme rather than an investment project, the Secretariat requested additional information on the equipment being requested for the phase-out of MB. UNDP stated that the project will have to carry out pilot demonstrations to determine the most suitable alternatives for all of the MB uses except for stored timber (because only timber was covered by the demonstration project). Major

stakeholders would need to make further detailed technical assessments in order to determine priorities and counterpart contributions once the technical work of the project has been carried out. Only at that time could the list of equipment to be purchased by the project be prepared.

#### Treatment of turf for golf courses

11. The project proposal includes the phase-out of 0.09 tonnes of MB used for treatment of turf for golf courses. Taking into account the very low MB consumption in this sub-sector, the negligible contribution to achieving the 20 per cent reduction in the MB baseline by 2005, the fact that 11.7 ODP tonnes MB can continue to be used until 2015 (i.e., the 2005 compliance level), and the very high costs associated with its phase-out, the Secretariat indicated that this project component should be deferred.

12. Subsequently, UNDP indicated that the use of MB can fluctuate from year to year, depending on weather, pest pressures and users' needs. An increase in the number of tourists travelling to Asia is expected which will result in a substantial increase in the consumption of MB for turf nurseries and golf courses. UNDP also noted that the Executive Committee, at its 39<sup>th</sup> Meeting decided to request implementing agencies to submit technical assistance programmes for the complete phase-out of MB in countries with very low MB consumption (Decision 39/38). Therefore, the project has been submitted as a technical assistance project addressing all controlled uses of MB.

#### Pending issues

13. At the time of the preparation of this document, UNDP was still awaiting for relevant information from the Government of Malaysia on the status of registration of alternative chemicals to MB. In addition, issues related to the final selection of the proposed alternative technologies and their costs were still under discussion between the Secretariat and UNDP. The conclusion of the outstanding issues will be communicated to the Executive Committee prior to its 43<sup>rd</sup> Meeting.

### **RECOMMENDATION**

14. Pending.

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