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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Fiftieth Meeting  
New Delhi, 6-10 November 2006

**PROJECT PROPOSAL: HONDURAS**

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

Fumigant

- National methyl bromide phase-out plan (phase II)

UNIDO

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**PROJECT EVALUATION SHEET – NON-MULTI-YEAR PROJECTS  
HONDURAS**

PROJECT TITLES	BILATERAL/IMPLEMENTING AGENCY
(a) National methyl bromide phase-out plan (Phase II)	UNIDO

NATIONAL CO-ORDINATING AGENCY	Ozone Unit
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**LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT**

**A: ARTICLE-7 DATA (ODP TONNES, 2005, AS OF SEPTEMBER 2006)**

Annex E, MB	315.60		

**B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2005, AS OF SEPTEMBER 2006)**

ODS Name	Sub-sector/quantity	Sub-sector/quantity	Sub-sector/quantity	Sub-sector/quantity.
MB	Non QPS / 325.80			

CFC consumption remaining eligible for funding (ODP tonnes)	
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CURRENT YEAR BUSINESS PLAN ALLOCATIONS		Funding US \$ million	Phase-out ODP tonnes
	(a)	-	-

PROJECT TITLE:	(a)
ODS use at enterprise (ODP tonnes):	295.80
ODS to be phased out (ODP tonnes):	Phase I (remaining) 88.26
	Phase II 207.54
ODS to be phased in (ODP tonnes):	
Project duration (months):	72
Initial amount requested (US \$):	
Final project cost:	
Incremental Capital Cost (US \$)	1,814,648
Contingency (10%) (US \$)	181,465
Incremental Operating Cost (US \$)	0
Total Project Cost (US \$)	1,996,113
Local ownership (%):	90.5%
Export component (%):	n/a
Foreign ownership (US \$)	-189,812
Requested grant (US \$):	1,806,301
Cost-effectiveness (US \$/kg):	8.70
Implementing agency support cost (US \$):	135,472
Total cost of project to Multilateral Fund (US \$):	1,941,773
Status of counterpart funding (Y/N):	n/a
Project monitoring milestones included (Y/N):	Yes

SECRETARIAT'S RECOMMENDATION	For individual consideration
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## PROJECT DESCRIPTION

1. On behalf of the Government of Honduras, UNIDO has submitted phase II of the national methyl bromide (MB) phase out plan for Honduras at a total cost of US \$1,806,301 plus US \$135,472 as agency support costs.

### Background

2. At its 37th Meeting, the Executive Committee considered a project proposal to completely phase-out the use of MB as a soil fumigant in melons, bananas and tobacco seedlings (i.e., 412.0 ODP tonnes) in Honduras (UNEP/OzL.Pro/ExCom/37/38 and Add.1). The total cost of the project, as agreed between the Secretariat and UNIDO, was US \$3,783,755. Funding for phase I of the project, also approved at the 37th Meeting, was US \$1,977,454. The Executive Committee also noted that at the time of phase-out of the proposed amount of MB, it would consider additional funding for the project (i.e., US \$1,806,301), if it were determined that an additional reduction was a priority (decision 37/50).

3. Since the approval of the project, the Parties to the Montreal Protocol have agreed to revise the MB phase-out schedule that was originally proposed by the Government of Honduras (decisions XV/35 and XVII/34). At its 48th Meeting, the Executive Committee decided to approve the revised phase-out schedule and allow UNIDO to submit an action plan and funding requirement accordingly.

### Action plan for the complete phase-out of MB

4. The Government of Honduras has committed to achieving the 20 per cent reduction in its MB baseline consumption by 2008 and the complete phase-out of MB by 2012 according to the following schedule:

Year	MB (ODP tonnes)	
	Consumption	Annual reduction
2006	295.80	31.80
2007	255.00	40.80
2008	207.54	47.46
2009	183.60	23.94
2010	163.20	20.40
2011	132.60	30.60
2012	81.60	51.00
2013	-	81.60

5. The alternative technologies implemented to phase out MB used as a soil fumigant in melon crops, namely grafting and chemical fumigants, have proven to be technically viable and economically acceptable to major stakeholders. During the implementation of phase I of the project, it was also found that there is a need to utilize two or more alternative technologies together with integrated pest/crop management techniques to achieve a sustainable phase-out of MB in the long term. In this regard, in phase II, the following alternative technologies would be implemented:

- (a) Upgrading of the existing nurseries for grafted plants that were established during phase I of the project to improve seedling grafting technology and grafted plant crop management systems;
- (b) Biological control to improve the quality of the soils by introducing very large numbers of non-pathogenic micro-organisms to the plants, which will act as parasites against soil borne pests. It will require equipment for the production of bio-antagonists (including laboratory equipment) at two melon farms, and a larger laboratory at Government premises to supply reliable local strains for the bio-antagonist production plants (this laboratory will also support the production of seeds for the grafting technology);
- (c) Improved application of chemical fumigants, mainly dichloropropane with chloropicrin, and development of an appropriate application protocol;
- (d) Soil-less technology through the use of a free-of-pests substrate (i.e., rice hulk) that could be locally available in large amounts and at low cost.

6. The Department of Science and Technology of the Government of Honduras has an experimental station located in the melon production area. The Government has agreed to provide land for pilot plots as well as personnel from its experimental station to support project activities. The training programme will be supported with information dissemination and awareness among melon producers, national institutions and other stakeholders.

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

### **COMMENTS**

7. The Secretariat reviewed the project proposal in light of the original project approved at the 37th Meeting of the Executive Committee, subsequent progress reports submitted by UNIDO to various meetings of the Executive Committee and the technical assistance programme to phase out the use of MB approved by the Executive Committee at its 47th Meeting as bilateral cooperation by the Government of Spain (paragraphs 48 to 57 of document UNEP/OzL.Pro/ExCom/47/13).

8. The Secretariat pointed out that, at the 37th Meeting of the Executive Committee, the Secretariat and UNIDO agreed to the level of funding for the MB phase-out project (phase I) on the basis of implementing the grafting technology to completely phase-out MB used as a soil fumigant in the production of melons. Since the project submitted to the 50th Meeting proposes alternative technologies that were not proposed in phase I of the project, phase II of the project has been fully reviewed. UNIDO indicated that the phase-out strategy has been adjusted based on the experience gained during the implementation of phase I of the investment project. Grafting, as the sole alternative for the melon sector that was selected in the original project, will be supported by biological control and alternative chemicals as part of an integrated crop and pest management programme.

9. Phase II of the MB investment project is proposing the introduction of biological controls and soil-less technology. In regard to biological control, the Secretariat raised reservations on the

long-term sustainability of this approach. The grounds for the Secretariat's reservations included: the complex nature of biological control production and application; the high costs of equipment and laboratories to produce bio-antagonists; the limited amount of organic matter in melon production areas in Honduras; and the limited analysis provided of actual operating costs for the application of this technology.

10. The Secretariat's concerns were addressed by UNIDO as follows: during implementation of phase I of the project, biological control has been commercially applied in some 287 ha by one melon producer using its own resources. The combination of different bio-antagonists has shown to be effective in controlling the range of soil borne pathogens that affect melon crops. Concerning the availability of organic matter, green manure will be grown between the two melon crop seasons. The amount of organic matter added to the soil by this methodology will be sufficient to allow the effective development of bio-antagonists. Bio-antagonist production will be properly managed by melon producers who employ thousands of people and have considerable capital investments in order to run the melon production. It is also proposed that the melon growers will cover the costs associated with the personnel to install and operate equipment. The other major costs associated with biological control (i.e., labour for application and inoculums production) have been considered in the calculation of the incremental operating cost assessment.

11. In regard to soil-less technology, the Secretariat indicated that the installation of a pilot unit to test soil-less technology cannot be recommended for approval since it has never been proposed in any investment project for the phase-out of MB in production of melons and the investment cost is considerable. On this basis, UNIDO agreed not to include this pilot unit in the project proposal.

12. In phase II of the project, it is being proposed to upgrade the existing nurseries for grafted plants for which funding was already provided in phase I of the project. In its review, the Secretariat questioned the eligibility of this request since, in principle, it implies requesting additional resources for the same project and pointed out that some of the items that were requested have already been provided in phase I of the project. UNIDO indicated that the aim of the nursery upgrading in phase II is to improve the productivity and reduce the production costs. No equipment purchased in phase I is being replaced by those planned in phase II. For example, in the original project it was proposed to build nurseries at two sites. However, to reduce transportation costs, a third nursery was established which required additional equipment.

13. The Secretariat and UNIDO discussed the issue related to the implementation modalities and the roles of the major stakeholders in the country. As reported by UNIDO, one of the main issues that were identified during the implementation of phase I of the project was the lack of local expertise to implement different components of the project and the need to strengthen the National Commission for Montreal Protocol Programmes, in particular for phasing out MB consumption. Therefore, it was agreed that the project will be coordinated by the National Commission and be implemented through the experimental station of the Department of Science and Technology. In this regard, it was agreed that basic equipment would be provided that would be needed to assist the melon growers in the full implementation of the alternative technologies selected and to train local staff in the implementation of the proposed technologies, including integrated pest and crop management.

14. Upon a request by the Secretariat regarding the overlapping of activities with the technical assistance programme supported by the Government of Spain, UNIDO indicated that the main objectives of the activities implemented through the Government of Spain's project in Honduras are: to support policy measures to help the Government of Honduras to return to compliance; support the Government and UNIDO to address difficulties that some melon producers are facing in implementing the alternative technologies proposed; and to increase the cooperation among major stakeholders. These policy-related activities, have not been included in the phase II of the investment project.

#### **Agreement between the Government of Honduras and the Executive Committee**

15. A draft agreement between the Government of Honduras and the Executive Committee on the modalities for implementing the MB phase-out project is contained in Annex I to the present document.

#### **RECOMMENDATION**

16. The Executive Committee may wish to consider the approval of phase II of the national MB phase-out plan in Honduras in light of the Secretariat's comments above.

## Annex I

### AGREED CONDITIONS FOR THE PHASE-OUT OF METHYL BROMIDE IN HONDURAS

1. The Executive Committee:
  - (a) At its 37<sup>th</sup> Meeting, approved US \$ 1,977,454 to achieve the phase-out of 213.00 ODP of methyl bromide used for soil fumigation on melon, watermelon, banana and tobacco seedling sectors; and
  - (b) At its 50th Meeting, approved an additional US \$1,806,301 for the phase-out of 207.5 ODP tonnes of MB to achieve the complete phase-out of controlled uses of methyl bromide in Honduras.
  
2. As reported to the Ozone Secretariat, and consistent with information in the project document presented to the Executive Committee, the methyl bromide baseline for Honduras has been established at 259.428 ODP tonnes. Honduras has also reported MB consumption of 327.60 ODP tonnes for 2005, excluding quarantine and pre-shipment applications. While Honduras has not achieved compliance with the Montreal Protocol's 20 per cent reduction in 2005, the Parties to the Montreal at their Seventeenth Meeting agreed on a plan of action that Honduras specifically commits itself to reduce methyl bromide consumption from 340.8 ODP tonnes in 2004 to 327.6 ODP tonnes in 2005; to 295.8 ODP tonnes in 2006; to 255.0 ODP tonnes in 2007; and to 207.5424 ODP tonnes in 2008 (decision XVII/34).
  
3. Reductions in accordance with the terms of the above-mentioned projects and other commitments presented in the project documents will ensure that Honduras meets the reduction schedule presented below. In this regard, Honduras will reduce the national consumption of controlled uses of methyl bromide to no more than the following levels of consumption in the years listed below:

Year	ODP tonnes
2006	295.8
2007	255.0
2008	207.5
2009	183.6
2010	163.2
2011	132.6
2012	81.6
2013	0.0

4. The projects will phase out all remaining controlled uses of methyl bromide in Honduras, excluding quarantine and pre-shipment applications. Honduras commits to permanently sustain the consumption levels indicated above through the use of import restrictions and other policies it may deem necessary.

5. Disbursement of the funding approved for UNIDO will be in accordance with the following schedule, and with the understanding that a subsequent year's funding will not be disbursed until the Executive Committee has favourably reviewed the prior year's progress report:

Year	US \$
2006	600,000
2007	800,000
2008	300,000
2009	106,301

6. The Government of Honduras has reviewed the consumption data identified in the project and is confident that it is correct. Accordingly, the Government is entering into this agreement with the Executive Committee on the understanding that, should additional methyl bromide consumption for controlled uses be identified at a later date, the responsibility to ensure its phase-out will lie solely with the Government.

7. The Government of Honduras, in agreement with UNIDO, will have the flexibility in organizing and implementing the projects' components that it deems more important in order to meet methyl bromide phase-out commitments noted above. UNIDO agrees to manage the funding for the project in a manner designed to ensure the achievement of the specific MB reductions agreed upon.

8. UNIDO shall report back annually to the Executive Committee on the progress achieved in meeting the methyl bromide reductions required in Honduras, as well as on annual costs related to the use of the alternative technologies selected and the inputs purchased with the project funds.

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