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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-seventh Meeting
Montreal, 17-19 July 2002

PROJECT PROPOSAL: HONDURAS

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

Fumigant

- Phase-out of methyl bromide in melon and banana production sector and tobacco seedling

UNIDO

**PROJECT EVALUATION SHEET
HONDURAS**

SECTOR: Fumigant ODS use in sector (2001): 412 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

Project Titles:

(a) Phase-out of methyl bromide in melon and banana production sector and tobacco seedling

Project Data	Methyl bromide
Enterprise consumption (ODP tonnes)	412.0
Project impact (ODP tonnes)	407.49
Project duration (months)	60
Initial amount requested (US \$)	4,719,869
Final project cost (US \$):	
Incremental capital cost (a)	3,486,521
Contingency cost (b)	348,652
Incremental operating cost (c)	884,696
Total project cost (a+b+c)	4,719,869
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	4,719,869
Cost effectiveness (US \$/kg.)	11.58
Counterpart funding confirmed?	
National coordinating agency	Ministry of Environment/Ozone Unit
Implementing agency	UNIDO

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

PROJECT DESCRIPTION

Phase-out of methyl bromide in bromide in melon and banana production sector and tobacco seedling

1. The project is to phase out 407.5 ODP tonnes of methyl bromide (MB) used for soil fumigation in melon (360 ODP tonnes) and banana (38.2 ODP tonnes) production and tobacco seedlings (4.7 ODP tonnes) in Honduras. Once the project is implemented, all MB used in the country, except for quarantine and pre-shipment applications (4.6 ODP tonnes) will be phased out.
2. The total surface area where melons are produced and MB is applied is 4,250.0 ha. Of this area, 898.2 ha are owned by non-Article 5 companies.
3. The selected alternatives are grafting (melons), dazomet in combination with glifosfate (banana) and the floating tray system (tobacco). The alternative technologies had been tested with success in demonstration and phase out projects so far implemented in the region (Mexico, Guatemala and Cuba).
4. Grafting is an effective method to control soil borne diseases, nematodes, virus (necrotic spot virus transmitted by a soil fungus). This technology requires the installation of greenhouses and acclimatised workshop for grafting, a sowing machine, a germination room, and trays.
5. The MB used for fumigation of tobacco seedbeds will be replaced with the floating tray system in micro-tunnels. The phase out of MB used for controlling moko disease in banana crops will be achieved through implementation of preventive measures and establishment of a monitoring system, and in cases of infection, through disinfestation of the soil with alternative chemicals.
6. The total capital cost of the project is US \$3.04 million and the total operating cost is US \$880,000. The project also includes a training programme (US \$440,000).
7. The Government of Honduras has already issued a regulation banning use of MB in the horticultural sector by the end of 2010; the Government will set limits on the import and national sale of MB. Before completion of the project, the Government will strengthen its efforts to introduce labelling of vegetables produced without the use of MB.
8. The project will be implemented by UNIDO in co-operation with GTZ. The project will be executed through a local institute of the agriculture and research sector. UNIDO will carry out the purchase of the equipment, which will be awarded on the basis of competitive bidding. GTZ will provide monitoring of the project and assistance to the local institute to plan the training programme.

9. The Government of Honduras, through the Ministry of the Environment, will be responsible for providing: the legal framework for phasing out MB and institutional support for implementing and following up on the project implementation.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

Non-Article 5 ownership

10. The total surface area fumigated with MB in the production of melons is 2,370 ha. One of the three companies involved in the production of melons has a non-Article 5 ownership component (about 10 per cent of the total cultivated surface area). The eligible project cost was discounted taking into account the foreign ownership component.

Melons (grafting)

11. The Secretariat noted that telone which is cheaper than grafting, could be used for most of the plant diseases in melons. UNIDO advised the Secretariat, however, that telon cannot be used to control the melon necrotic spot virus which is the disease affecting melon crops.

12. The Secretariat also indicated that in the off-season, the proposed greenhouses could be used for production of other crops. UNIDO informed the Secretariat that the off-season corresponds to the rainy season in Honduras, when no commercial crops are grown except for maize, beans, rice and other grains. Moreover, the transplanting time is from the end of September to the end of March for all the crops (including tobacco). Therefore, the greenhouses cannot be used in the off-season.

13. The Secretariat discussed with UNIDO the costs of materials for the greenhouses which were high (among others, structure frame, greenhouse film, computer control for the fertigation and irrigation systems, injectors and tanks for chemicals, and cell trays).

14. The Secretariat noted that several improvements have been identified in the project when replacing MB with grafting. These include a reduction on plant losses during the entire cycle; a 50 per cent reduction in the number of plants needed per surface area; and reductions in the use of pesticides. In spite of these improvements, operating costs amounting to US \$586,192 (NPV for 4 years) have been estimated. In this regard, the Secretariat sought a clarification on how the benefits from the grafting technology could be incorporated into the project cost.

Tobacco crop

15. The project proposal states that for the production of tobacco Extaho "is trying to introduce the floating tray system through its growers". The Secretariat sought a clarification on the success or otherwise of this operation. In this regard UNIDO indicated that the current operation of the floating tray system is not efficient since the substrate being used (Canadian peat) is very expensive because of the low amount used; the trays are also imported at a very

high price (US \$2.80/unit instead of US \$1.00/unit or less in similar projects so far approved); and sowing is by hand which is very difficult and a time-consuming operation. Therefore, the introduction of the floating tray system at a larger scale will overcome the current limitations.

Banana crop

16. The Secretariat pointed out that the operating costs were calculated considering the application of both dazomet and glifosfate in the field. However, in the case of Colombia (one of the two projects so far approved for the phase out of MB in banana crops), dazomet was selected as the preferred chemical alternative while glifosfate was considered as the third option. UNIDO informed the Secretariat that the selection of dazomet in combination with glifosfate is very efficient to control the moko disease.

Status of the discussion

17. The Secretariat and UNIDO are still discussing some outstanding issues as well as cost-related issues. The outcome of the discussion will be communicated to the Executive Committee prior at the 37th Meeting.

18. In the meantime, UNIDO is assisting the Government of Honduras in drafting a proposal for an agreement between the Government and the Executive Committee with the commitments proposed and action plan for the phase out of MB bromide in melon and banana production sector and tobacco seedling. The draft agreement will be finalised prior to the 37th Meeting of the Executive Committee.

RECOMMENDATIONS

19. Pending.
