UNITED NATIONS

EP

United Nations Environment Programme

Distr.
LIMITED

UNEP/OzL.Pro/ExCom/35/36
9 November 2001

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-fifth Meeting
Montreal, 5-7 December 2001

PROJECT PROPOSAL: COSTA RICA

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

Fumigant:

• Project to adopt alternatives in melon, cut flowers, banana, tobacco seedbeds and nurseries, leading to total methyl bromide phase-out in Costa Rica (excluding QPS)	UNDP

PROJECT EVALUATION SHEET
COSTA RICA

SECTOR: Fumigants ODS use in sector (2000): 390 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

Project Titles:

(a) Project to adopt alternatives in melon, cut flowers, banana, tobacco seedbeds and nurseries, leading to total methyl bromide phase-out in Costa Rica (excluding QPS)

Project Data	**Methyl bromide**
Enterprise consumption (ODP tonnes)	426.90
Project impact (ODP tonnes)	426.90
Project duration (months)	60
Initial amount requested (US $)	1,250,000
Final project cost (US $):	
Incremental capital cost (a)	8,340,754
Contingency cost (b)	515,815
Incremental operating cost (c)	586,180
Total project cost (a+b+c)	9,442,749
Local ownership (%)	100%
Export component (%)	35%
Amount requested (US $)	1,250,000
Cost effectiveness (US $/kg.)	22.00
Counterpart funding confirmed?	
National coordinating agency	COGO
Implementing agency	UNDP

Secretariat's Recommendations	
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 Government of Costa Rica is submitting a project to phase out 426.9 ODP tonnes of methyl bromide (MB) used for soil disinfestation in melons, cut flowers, tobacco seedbeds and nurseries representing the total consumption in the country except for quarantine and pre-shipment applications. Approximately 80% of the crops grown on MB-fumigated soil are exported.

2. The project is to replace MB with solarization in combination with alternative chemicals (including 1,3-dichloropropene and metam sodium), bio-fumigation, floating tray system (tobacco seedbeds) and steam pasteurisation (cut flower crops), in combination with an integrated pest management (IPM) programme. These technologies have been selected on the basis of the results from the 2 demonstration projects on alternatives to the use of MB in melons and cut flower crops approved by the Executive Committee at its 27th Meeting (UNDP, US $374,000).

3. The use of chemical alternatives (metam sodium and bio-fumigation) requires modification of the irrigation systems currently available in farms (at a cost of US $1,162,900) and 80 rotovators and temperature monitors (US $668,000). Steam pasteurisation technology requires 16 boilers and temperature monitors (US $1,002,800). The floating tray system requires the construction of micro-tunnels, manual seeders and conductivity meters (US $46,130). The project also includes a request for soil-type analysis, soil-pest identification and chemicals (US $2,078,320), and a training programme and project management (US $3,182,600). Incremental operating costs have been estimated at about US $586,180.

4. The project has to implement a package of policy measures to ensure that the MB phased out will not be re-introduced at a later stage. Under the direction of the Ozone Office, an action plan (including policy actions by the Government and voluntary activities) for each crop sector will be developed with the participation of MB users, other stakeholders and relevant Government departments. The action plan will also ensure that the implemented alternatives to MB will be economically sound and environmentally sustainable. A labelling and certification system is envisaged as one part of the plan. MB import control systems and regulations will also be adopted/amended as necessary, so that Costa Rica will be able to meet its commitments to the Montreal Protocol.

5. The project will be implemented by UNDP in co-operation with grower associations under the national co-ordination of the Ozone Unit.

6. The estimated time for the implementation of the project is 5 years.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

7. UNDP informed the Secretariat that during preparation of the phase-out project, the Government of Costa Rica identified the amounts of MB used for quarantine and pre-shipment

applications for the years 1995 to 1999. Based on this survey, the Government recalculated its MB baseline and officially communicated the results to the Ozone Secretariat. The revised baseline (excluding quarantine and pre-shipment applications) is 342.5 ODP tonnes (instead of 434.2 ODP tonnes reported by the Ozone Secretariat). The 2000 MB consumption level reported to the Ozone Secretariat is 390 ODP tonnes.

8. The Secretariat pointed out that the export component has not been considered in the calculation of the eligible cost of the project. UNDP informed the Secretariat that between 75 and 90% of the total production of melons, cut flowers and tobacco and 97% of banana are exported to non-Article 5 countries, both indirectly through another company and directly (about 15% of the total export) by the growers, as shown in the following table:

Crops	Categories of farms	MB use (%)	Export to non-Article 5 countries (%)	Indirect exports (via another company) (%)	Direct exports (%)
Melons	Large farms	49.8%	90%	100%	0%
	Medium and small farms	33.2%	85%	92-95%	5 – 8%
Cut flowers	Large and medium farms	13.5%	75-80%	0%	0%
	Small farms	1.5%	73-75%	0%	100%
Bananas	All	1.8%	97%	95%	5%
Tobacco	All	0.2%	0	0%	0%
Total		100%			

9. The Secretariat discussed with UNDP technical and cost-related issues, specifically the requests for rotovators (which should be a part of the baseline irrespective of the fumigant used); modifications to the irrigation system necessary for replacing MB with metam sodium and the methodology used to determine their incremental cost; the temperature monitoring; and the basis used for the determination of the number of boilers required. UNDP informed the Secretariat that rotovators are required for metam sodium applications since the soil needs to be prepared in a different way and deeper compared to MB use; therefore it is essential to use a certain type of rotovator such as the rotating spades with blades which break up the soil well. The existing irrigation systems should be modified (i.e., changing the injection system and spikes) so that metam sodium can be used effectively. UNDP also indicated that both steam and biofumigation technologies will require temperature monitoring to ensure that the treatments are applied effectively; the equipment will be shared between farmers. Boilers for steam pasteurisation will be distributed according to the number of growers in the regions, surface area to be treated, species of flowers and nursery plants, months of treatment, and other relevant factors.

10. The Secretariat pointed out that the requests for soil analysis and soil insect/pest identification were not justified as incremental costs, since these analysis are a routine part of any production practice, irrespective of the fumigant being used. In this regard, UNDP indicated that soil analysis is not carried out when MB is used, and is not part of the baseline cost; soil

pests do not need to be identified because MB is effective in controlling such a broad range of pests (and farmers do not need to know what is in the soil). The demonstration project found that soil analysis is essential in Costa Rica because the type of soil varies greatly from one field to another and even within the same field. Also, the alternatives are not effective for the same wide range of pests as MB (except for steam); therefore, a soil analysis is necessary for identifying which treatment is appropriate in a given location.

11. The Secretariat and UNDP discussed issues related to the calculation of the operating costs, including the difference in surface area fumigated with MB and the alternative technologies, labour associated with irrigation, costs of plastics, and operating costs of equipment, as well as the training programme and project management

12. The Fund Secretariat and UNDP are still discussing some of the above issues including the agreement between the Government and the Executive Committee. Results of the discussions and a draft agreement will be finalised prior to the 35th Meeting of the Committee.
