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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-third Meeting
Montreal, 12-14 November 1997

PROJECT PROPOSAL: ZIMBABWE

This documents includes the comments and recommendations of the Fund Secretariat on the following project proposal:

Fumigant

- Demonstration project - Two alternatives to the use of methyl bromide in the production of tobacco drought-resistant seedlings; non-soil cultivation and low-dose chemicals

UNIDO

PROJECT EVALUATION SHEET ZIMBABWE

SECTOR: FUMIGANT ODS use in sector (1994): 597 ODP tonnes

Sub-sector cost-effectiveness thresholds: N/A

Project Title:

Demonstration Project: Two alternatives to the use of methyl bromide in the production of tobacco drought-resistant seedlings: non-soil cultivation and low-dose chemicals.

Project Data	FUMIGANT	
	Alternative to the use of methyl bromide	
ODS phase-out (ODP tonnes)		N/A
Proposed project duration (months)		24
Incremental capital cost (US \$)		370,700
- including contingency (%)		10
Incremental operational cost (US \$)		
Total project cost (US \$)		370,700
Local ownership (%)		100
Export component (%)		
Amount requested (US \$) {Original}		370,700
{Revised}		
Cost effectiveness (US \$/kg)		N/A
National Coordinating Agency		Tobacco Research Board
Implementing Agency		UNIDO
Technical review completed?		Yes

Secretariat's Recommendations:	
Amount recommended (US \$)	370,700
Project impact (ODP tonnes)	N/A
Cost effectiveness (US \$/kg)	N/A
Implementing Agency support cost (US \$)	48,191
Total cost to Multilateral Fund (US \$)	418,891

PROJECT DESCRIPTION

Demonstration Project: Two alternatives to the use of methyl bromide in the production of tobacco drought-resistant seedlings: non-soil cultivation and low-dose chemicals.

1. The Government of Zimbabwe is submitting a project proposal to demonstrate alternatives to methyl bromide for consideration by the Executive Committee at its 23rd Meeting.

2. Zimbabwe is one of the largest users of methyl bromide in Africa, with an estimated consumption of 597 tonnes, mainly used for treating tobacco seedbed (500 tonnes). Approximately 1,600 large-scale commercial Virginia tobacco farmers and about half of the 1,250 small-scale farmers use methyl bromide in their operation. Small quantities of methyl bromide are used in burley tobacco seedbeds (mainly large-scale growers).

3. The tobacco industry in Zimbabwe is well integrated, with close liaison between the growers' associations, training and research institutions, marketing organizations, the merchants and manufacturers. The Tobacco Research Board was established in 1950 as a result of pressure from growers on the Government to provide the necessary back-up to raise the yield and quality of tobacco. As a result, Zimbabwe is among the three major tobacco exporters in the world.

4. The project is to demonstrate the technical and economic feasibility of two alternative methods to the use of methyl bromide in tobacco seedling production, namely, non-soil cultivation techniques and application of low doses of other pesticides.

5. Non-soil cultivation technique is used in nurseries, glasshouses and seedbeds to prevent infestation by bacteria and fungi. Soil is replaced by synthetic or natural sterilized soil substitutes which provide reliable support. Two types of soil-less media are available: (i) organic media, such as peat, sawdust, straw bales, which have good cation-exchange and water holding capacity, and (ii) inert media, such as rock wool, perlite, polyurethane, expanded clay and polystyrene, which have high water holding capacity but low cation-exchange capacity. The project intends to apply this technology by using organic media available in the area, alone or in mixtures with inert media; and inert media, available in the area, at competitive prices.

6. Integrated pest management (IPM) approach for crop protection utilizes a combination of cultural practices, including crop rotation, cover crops, fertilization and plant nutrition; physical methods, including steam, solarization, and heat, and use of chemical compounds. Implementation of an IPM reduces the dosage of mixtures of pesticides and fungicides applied.

7. The project will be coordinated by the Ministry of Environment and Tourism and will be implemented by UNIDO in close cooperation with the Tobacco Research Board.

8. The expected results from project implementation are: (i) a technical and economic analysis of utilization of the two proposed alternatives to methyl bromide, (ii) at least three local specialists trained in the alternative technologies used; and (iii) dissemination of the results of the demonstration project among Article 5 countries.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The 20th Meeting of the Executive Committee adopted interim guidelines on methyl bromide projects and allocated US \$100,000 for preparation of project proposals on alternatives to methyl bromide.
2. The Fund Secretariat reviewed the project proposals in the context of the Executive Committee's interim guidelines on methyl bromide projects, the report of the Methyl Bromide Technical Options Committee (MBTOC), UNIDO's strategy paper for the phase-out of methyl bromide, as well as several publications on alternatives to methyl bromide.
3. The project concept follows the Executive Committee's guidelines and is consistent with MBTOC reports.
4. The amount of methyl bromide to be phased out is negligible as this is only a demonstration project.
5. For several years, the Tobacco Research Board has been involved in research on alternatives to methyl bromide, including soil injection of ethylene dibromide and 1,3 dichloropropene, dazomet and metham sodium, reduced dosage of methyl bromide, solarization, use of herbicides in the seedbeds. The Tobacco Research Board has also identified areas for further research, inter alia, soilless systems, resistant tobacco cultivars and fungicides for tobacco seedbeds.
6. The Secretariat discussed with UNIDO issues regarding salaries of international and national experts, project implementation, project outputs and means to incorporate the research already done by the Tobacco Research Board on alternatives to methyl bromide during project implementation.

RECOMMENDATION

1. The Fund Secretariat recommends blanket approval of the project with associated support costs at the funding level shown in the table below:

Project Title	Project Cost US \$	Support Cost US \$	Implementing Agency
Demonstration Project: Two alternatives to the use of methyl bromide in the production of tobacco drought-resistant seedlings: non-soil cultivation and low-dose chemicals.	370,700	48,191	UNIDO