PROJECT PROPOSAL: ZAMBIA

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

Fumigant

- Technical assistance for the total phase-out of methyl bromide in tobacco, cut flowers, horticulture and post harvest uses

UNIDO
PROJECT EVALUATION SHEET – NON-MULTI-YEAR PROJECT
ZAMBIA

PROJECT TITLE(S) | BILATERAL IMPLEMENTING AGENCY
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(a) Technical assistance for the total phase-out of methyl bromide in tobacco, cut flowers, horticulture and post harvest uses | UNIDO

NATIONAL CO-ORDINATING AGENCY | The Environmental Council of Zambia

LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

A: ARTICLE-7 DATA (ODP TONNES, 2007, AS OF OCTOBER 2008)

| Annex E, MB | 6.0 |

B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2007, AS OF OCTOBER 2008)

<table>
<thead>
<tr>
<th>ODS</th>
<th>Subsector/quantity</th>
<th>Subsector/quantity</th>
<th>Subsector/quantity</th>
<th>Subsector/quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>Tobacco Fluffing / 6.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CFC consumption remaining eligible for funding (ODP tonnes) | n/a

CURRENT YEAR BUSINESS PLAN ALLOCATIONS

<table>
<thead>
<tr>
<th>Funding US $ million</th>
<th>Phase-out ODP tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

PROJECT TITLE:

ODS to be phased out (ODP tonnes): 7.4
Project duration (months): 36
Initial amount requested (US $): 602,625
Final project costs (US $): 289,548
Incremental Capital Cost: 630,919
Contingency (10 %): 63,092
Incremental Operating Cost: -404,463
Total Project Cost: 289,548
Local ownership (%): 100
Export component (%): n/a
Requested grant (US $): 289,548
Cost-effectiveness (US $/kg): n/a
Implementing agency support cost (US $): 21,716
Total cost of project to Multilateral Fund (US $): 311,264
Status of counterpart funding (Y/N): Y
Project monitoring milestones included (Y/N): Y

SECRETARIAT’S RECOMMENDATION[S] | For individual consideration
PROJECT DESCRIPTION

1. On behalf of the Government of Zambia, UNIDO submitted a project proposal to phase out 10 ODP tonnes of methyl bromide (MB) used in the tobacco, cut flower, horticulture and post-harvest sectors, for the consideration of the Executive Committee at its 56th Meeting. The total cost of the project, as originally submitted, is US $602,625 plus agency support costs of US $45,197. Approval of this project will result in the complete phase-out of all controlled uses of MB in Zambia.

Background

2. So far the Executive Committee had funded only one activity in the MB sector for Zambia. At its 30th Meeting, the Executive Committee approved US $25,000 plus agency support costs of US $3,250 for UNEP for the implementation of a technical assistance programme to enhance the capacity of local agricultural organizations and NGOs in MB awareness. This activity was completed in March 2001.

Project description

3. Of the total MB consumption in the country, 7 ODP tonnes are used in the fumigation of 23 ha of tobacco seedlings covering a total production surface of 2,000 ha. The Tobacco Association of Zambia and the Zambia National Farmers Union represent both small- and large-scale farmer operations. MB is also used as a fumigant to control nematodes and fungi in the production of 7 ha of cut flowers, mainly rose production (1.6 ODP tonnes); 4 ha of horticulture products (1 ODP tonne) and in the fumigation of commodities and structures, applied through three specialized fumigation companies.

4. The project proposes to replace the use of MB as follows:

   (a) In the production of tobacco seedlings, the technologies selected are the floating tray system mainly for large-scale production, and selected alternative chemicals alone or in combination with solarization for medium- and small-sized farms. Training in the use of these technologies will be provided to farmers and technicians;

   (b) In the cut flower and horticulture sectors, the technologies selected are solarization in combination with low dosage of alternative chemicals and bio-fumigation (alone or in combination with solarization). Training will be provided to farmers;

   (c) In the post-harvest sector, the technology selected is phosphine, combined with integrated pest management (IPM) techniques. This alternative will be introduced through the training of about 250 fumigators, technicians and inspectors.

5. The total cost of the project is US $602,625 with the following breakdown:

<table>
<thead>
<tr>
<th>Item</th>
<th>US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment and farm material</td>
<td>512,859</td>
</tr>
<tr>
<td>Training programme</td>
<td>494,230</td>
</tr>
<tr>
<td>Operating costs</td>
<td>(404,463)</td>
</tr>
</tbody>
</table>

6. Importation, distribution, and use of MB is regulated by the Environmental Protection and Pollution Control Act that establishes the Environmental Council of Zambia. Under the section on pesticides and toxic substances, the Act provides for the control of MB. Upon completion of the project, the Government will issue a ban on controlled uses of MB in Zambia.
SECRETARIAT’S COMMENTS AND RECOMMENDATIONS

Comments

7. According to the data reported by the Government of Zambia under Article 7 of the Montreal Protocol, MB consumption decreased from 14.3 ODP tonnes in 2001 to 6.0 ODP tonnes in 2007 (the 2007 MB consumption is already 17.5 ODP tonnes below the maximum allowable level for that year). However, the project had been designed to phase out 10 ODP tonnes of MB. UNIDO pointed out that, over the 2002-2005 period, MB consumption was in the range of 10.2 to 12.6 ODP tonnes and, in just the last two years, consumption was reduced to 6 ODP tonnes. Therefore, the project was based on 2005 MB consumption. In further discussions, it was agreed to consider the level of MB consumption in the project as the 2005-2007 average official reported consumption (i.e., 7.4 ODP tonnes). The Secretariat also notes that the current consumption in Zambia of 6.0 ODP tonnes could increase to 23.5 ODP tonnes in future years (i.e., 80 per cent of the baseline) as Zambia has not committed yet to accelerate the reduction in MB consumption.

8. UNIDO indicated that tobacco production reached its peak level in 2005, but has been decreasing since then. However, in 2006 and 2007 the growth trend was interrupted mainly due to an increase in copper exports and the collapse of tobacco prices on the world market, as well as world trends in the reduction of the surface area for the production of tobacco.

9. The project proposes to replace MB in the tobacco sector with the floating tray system. Tobacco growers initially expressed concern, but UNIDO pointed out that the selection of the alternative technology was done in coordination with all stakeholders. Technical issues such as the availability of locally available media (composted pine bark) and low temperatures at night have been resolved, and trays are now distributed throughout the country.

10. The Secretariat also discussed a number of other points with UNIDO, including the costs used to calculate savings on operating costs, the number of trays being requested and their unitary price, equipment items required for the fumigation of structures and commodities, and the high cost of the training programme considering the relatively small level of consumption in the country. Subsequently, UNIDO revised the project proposal, addressing the issues raised by the Secretariat. The total cost agreed with UNIDO amounts to US $289,548 to phase-out 7.4 ODP tonnes of MB.

11. UNIDO assisted the Government of Zambia in drafting an agreement between the Government and the Executive Committee. The draft agreement is attached to this document as Annex I.

Recommendations

12. The Executive Committee may wish to consider:

(a) Approving the technical assistance programme for the total phase-out of methyl bromide in tobacco, cut flowers, horticulture and post-harvest uses in Zambia at a total cost US $289,548 plus agency support costs of US $21,716 for UNIDO, on the understanding that no additional funding will be provided for Zambia for the phase-out of controlled uses of methyl bromide in the country; and

(b) Approving the draft agreement between the Government of Zambia and the Executive Committee for the phase-out of controlled uses of methyl bromide contained in Annex I.
Annex I

AGREED CONDITIONS TO PHASE OUT METHYL BROMIDE IN ZAMBIA (DRAFT)

1. The Executive Committee agrees to approve in principle US $289,548 as the total funds that will be available to achieve commitments stipulated in this document for the complete phase-out of the controlled uses of use of methyl bromide in Zambia, excluding quarantine and pre-shipment applications, subject to the following understandings and considerations.

2. As reported to the Ozone Secretariat, the methyl bromide baseline for compliance for Zambia is 29.4 ODP tonnes; the 2007 methyl bromide consumption was 6.0 ODP tonnes. Accordingly, Zambia has achieved compliance with the Montreal Protocol’s 2002 freeze obligation and it is in compliance with the Protocol’s 20 per cent reduction in 2005.

3. Reductions in accordance with the terms of the above-mentioned project and other commitments presented in the project document will ensure that Zambia meets the reduction schedule presented below. In this regard, Zambia 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:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount to be phased out</th>
<th>Remaining consumption*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>0.0</td>
<td>7.4</td>
</tr>
<tr>
<td>2009</td>
<td>2.0</td>
<td>5.4</td>
</tr>
<tr>
<td>2010</td>
<td>2.0</td>
<td>3.4</td>
</tr>
<tr>
<td>2011</td>
<td>3.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>7.4</td>
<td></td>
</tr>
</tbody>
</table>

* Controlled uses of methyl bromide.

4. Zambia commits to permanently sustaining the consumption levels indicated above through the use of import restrictions and other policies it may deem necessary.

5. The Government of Zambia has reviewed the consumption data identified in the tobacco, cut flower, horticulture and post-harvest sectors 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.

6. The Government of Zambia, in agreement with UNIDO, will have flexibility in organizing and implementing the projects’ components that it deems more important in order to meet the 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 methyl bromide reductions agreed upon.

7. UNIDO shall report back annually to the Executive Committee on the progress achieved in meeting the methyl bromide reductions required in the in the tobacco, cut flower, horticulture and post-harvest sectors, as well as on annual costs related to the use of the alternative technologies selected and the inputs purchased with the project funds.