



**United Nations  
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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Forty-fourth Meeting  
Prague, 29 November-3 December 2004

**PROJECT PROPOSALS: KENYA**

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

Fumigant

- Technology transfer leading to methyl bromide phase-out in soil fumigation (second tranche) UNDP
- Technology transfer leading to methyl bromide phase-out in soil fumigation in all other horticulture (progress report) Germany

**PROJECT EVALUATION SHEET - MULTI-YEAR PROJECTS  
KENYA**

PROJECT TITLE	BILATERAL/IMPLEMENTING AGENCY
(a) Technology transfer leading to methyl bromide phase-out in soil fumigation (second tranche)	UNDP
(b) Technology transfer leading to methyl bromide phase-out in soil fumigation in all other horticulture (progress report)	Germany

<b>NATIONAL CO-ORDINATING AGENCY:</b>	Ministry of Environment
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**LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT**

**A: ARTICLE-7 DATA (ODP tonnes, 2003 as of October 2004)**

Annex E, methyl bromide	74.10		
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**B: COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes, 2003 as of October 2004)**

ODS	Foam	Ref.	Aerosol	ODS	Solvents	Process agent	Fumigant
				Methyl bromide			100.68

<b>CFC consumption remaining eligible for funding (ODP tonnes)</b>	n/a
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**CURRENT YEAR BUSINESS PLAN: Total funding US \$329,000 total phase-out 18.9 ODP tonnes.**

PROJECT DATA		2002	2003	2004	2006	2008	2009	2010
<b>ODS UNDP</b> (ODP tonnes)	Montreal Protocol limits	217.5	217.5	<b>217.5</b>	174.0	174.0	174.0	174.0
	Annual consumption limit	111	111	<b>96</b>	63	29	14	14
	Annual phase-out from ongoing projects		--	<b>10</b>	21	22	10	0
	Annual phase-out newly addressed							
	Annual unfunded phase-out							
<b>ODS GERMANY</b> (ODP tonnes)	Montreal Protocol limit							
	Annual consumption limit							
	Annual phase-out from ongoing projects		--	<b>5</b>	12	12	5	0
	Annual phase-out newly addressed							
	Annual unfunded phase-out							
<b>TOTAL ODS CONSUMPTION TO BE PHASED OUT</b>		--		<b>15</b>	33	34	15	0
Project cost as originally submitted (US \$)								
<b>Final Project costs (US \$):</b>								
	Funding for UNDP	510,660	0	<b>306,396</b>	204,263	--	--	--
	Funding for Germany	0	287,247	*	114,898	--	--	--
	<b>Total project funding</b>	510,660	287,247	<b>306,396</b>	319,161	--	--	--
<b>Final Support costs (US \$)</b>								
	Support cost for UNDP	66,173	37,342	22,980	18,384			
	Support cost for Germany			*	14,937			
	<b>Total support costs</b>	66,173	37,342	<b>22,980</b>	33,320			
<b>TOTAL COST TO MULTILATERAL FUND (US \$)</b>		576,833	324,589	<b>329,376</b>	352,481			
Final project cost effectiveness (US \$/kg)								

\* US \$172,347 plus agency support costs of US \$22,405 for Germany approved at the 42nd Meeting

<b>SECRETARIAT'S RECOMMENDATION</b>	Blanket approval of the 2004 tranche for UNDP
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## PROJECT DESCRIPTION

### Background

1. At its 38th Meeting, the Executive Committee approved in principle US \$1,595,811 to achieve the complete phase-out of MB used for soil fumigation in Kenya and approved an agreement between the Government of Kenya and the Executive Committee on the modalities of the implementation of the projects. Of this amount, US \$574,492 was allocated to the Government of Germany for the phase-out of MB used in horticulture and US \$1,021,319 was allocated to UNDP for the phase-out of MB used in cut flowers (UNEP/OzL.Pro/ExCom/38/38 and Add.1).
2. At its 39th Meeting, the Executive Committee approved the first tranche for the horticulture component and allocated US \$287,247 to the Government of Germany for its implementation (UNEP/OzL.Pro/ExCom/39/34 and Add.1). At its 42nd Meeting, the Executive Committee approved the second tranche of this project component and allocated US \$172,347 to the Government of Germany for its implementation (UNEP/OzL.Pro/ExCom/42/36).
3. UNDP has submitted for the consideration of the Executive Committee the second tranche of the project component for the phase-out of MB used in horticulture for a total cost of US \$306,396.

### Progress report

4. The main activities implemented so far are summarized in the table below.

<b>Implemented activities</b>	<b>Description</b>
Project coordination including recruitment of personnel	The Ozone Office (under the Ministry of Environment and Natural Resources) was identified as the Project Coordination Office. National and international specialists were contracted. The international consultant trained the Project Team on relevant MB alternatives and on procurement, administrative and accounting procedures. An agreement between the Project Coordination Office and the University of Nairobi was signed.
Establishment of linkages with horticultural industry stakeholders	Linkages were established with the Horticultural Crops Development Authority, the Ministry of Agriculture, private horticultural companies and MB distributors.
Establishment of a MB training centre	A MB alternatives training centre was established to provide pilot and ongoing training in MB alternatives for cut flowers and vegetables. Demonstrations and pilots on the various MB alternatives have been done in horticulture (seed dressers and substrates coupled with gravity drip irrigation have been demonstrated for sugar snaps, while seed dressers have been demonstrated for French beans). The effects of different water regimes and modes of application have also been demonstrated. Data has been collected on various aspects of the pilots.

Implemented activities	Description
Field surveys and visits	<p>A questionnaire was developed to be used in the field for cut flower, vegetable and fruit growers.</p> <p>The Project Team visited many farms growing vegetables, cut flowers and fruits and established the MB status and soil-borne pests and diseases. Four clusters were identified in the major export vegetable growing areas. The Project Team and farmers set up various alternatives to be piloted for cut flowers (growers and nurseries), vegetables and fruits based on the soil-borne pathogens and the value of the crop.</p> <p>Some flower growers are adopting substrates and others are adopting steaming, while flower nurseries are adopting negative pressure steam, substrates, nematode filters and water treatment</p>
Contacts with local suppliers of materials and services	<p>The Project Team identified local suppliers for coco peat, pumice and gravity drip irrigation units</p> <p>Fumigators with relevant skills for the application of metam sodium using the spading machine were identified.</p>
Farmers training programmes, awareness training and capacity building	<p>Training manuals on steam and vegetables were developed. The steam manual was targeted at cut flower producers; it describes how to use various relevant steam methods. The vegetable manual places special emphasis on French beans, sugar snaps and snow peas (i.e., the three leading export vegetables).</p> <p>The Project carried out technical assistance and on-farm training in the cut flower sector, and technical assistance on vegetable farms (the first formal workshop for vegetable farmers was held in August 2004)</p> <p>The project has received many visitors from the University of Nairobi who have developed interest in the demonstrations at the Training Centre. Two university students have been attached to the Training Centre on a full-time basis. A farm-manager is currently learning from the set-up with a view to establishing the same set-up on his employer's farm. Farm workers have been trained in the use of MB alternatives.</p> <p>During the farmer training workshop in the vegetable sector, officials from the Ministry of Agriculture, the Kibirigwi Irrigation Scheme and the Horticultural Crops Development Authority were also trained.</p>

5. The activities implemented since the project was approved have created awareness about project's activities, including the need to implement environmentally friendly and suitable alternative technologies to MB, and discouraging potential users from using MB. In adopting the alternative technologies, the severity of the soil-borne problems and the value of the crop in relation to the cost of the alternative was considered. Many cut flower producers and vegetable farmers have been advised on the use of MB alternatives and related preventive methods, such as field sanitation and seed dressers.

6. As of the end of August 2003, a total of 13.3 ODP tonnes of MB had been phased out. An additional amount of MB is scheduled to be phased out by the end of 2004, in order to meet the required reduction of 15 ODP tonnes.

Plan of action for 2005

7. Through the implementation of the second tranche of the cut flowers project component, at least 21 ODP tonnes of MB should be phased out by 2006, thus reducing the national MB consumption to no more than 63 ODP tonnes.

8. In 2005, the Project Team will carry out more work on farm implementation of MB alternative technologies and continue with ongoing training of farmers in the cut flower, vegetable, fruit and nursery sectors, specifically:

- (a) Select the farms to be included in the 2005 programme;
- (b) Provide assistance for growers to adopt MB alternatives on farms, including setting up pilots in certain sectors where necessary;
- (c) Procure and deliver material for MB alternatives to the farmers (cut flower, vegetable, fruits and nurseries);
- (d) Training workshop for cut flower and vegetable growers and programme for follow-up training of farmers to include alternative techniques related to the cut flower sector;
- (e) Strengthen linkages forged previously between local agricultural companies and other national institutions, and continue work with the contracted fumigator for the application of metam sodium; and
- (f) Monitor ongoing activities in the vegetable/cut flower sectors.

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

9. The starting point for reduction in consumption of MB in Kenya, as specified in the agreement, is 111 ODP tonnes, reported in 2001. Maximum allowable levels were not specified for 2002 and 2003. The maximum level for 2004 is 96 ODP tonnes. The Secretariat noted that the Government of Kenya reported, under Article 7 of the Montreal Protocol, a MB consumption of 74.1 ODP tonnes.

10. It is reported that, as of 31 August 2004, 13.3 ODP tonnes of MB were phased out. An additional 2.7 ODP tonnes should be phased to achieve the phase-out limit agreed by the Government of Kenya. The Secretariat requested clarification on whether the 15 ODP tonnes of consumption would be phased out by the end of 2004, and confirmation that the total level of consumption would not exceed 96 ODP tonnes, the agreed maximum limit allowable under the agreement. UNDP indicated that the national project management team is working in close cooperation with growers and is confident that the 15 ODP tonnes phase-out of consumption will be met by the end of 2004. In the cut flower sector alone, one nursery has completely adopted

steam and already phased out 7.5 ODP tonnes of MB; two other nurseries will have completely moved to substrates by the time the end of the year replant occurs.

11. Upon a request by the Secretariat for a status report on the level of expenditures that have so far been incurred by type of activity (e.g., equipment, material, training, awareness), UNDP indicated that of the total funding so far allocated by the Executive Committee (US \$510,660), US \$435,044 has been disbursed or obligated.

**RECOMMENDATION**

12. The Fund Secretariat recommends blanket approval of the second tranche of the project with associated support costs at the funding levels shown in the table below:

	<b>Project Title</b>	<b>Project Funding (US\$)</b>	<b>Support Cost (US\$)</b>	<b>Implementing Agency</b>
(a)	Technology transfer leading to methyl bromide phase-out in soil fumigation in cut flowers (second tranche)	306,396	22,980	UNDP

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