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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Sixty-sixth Meeting  
Montreal, 16-20 April 2012

**PROJECT PROPOSAL: MEXICO**

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

Fumigant

- National methyl bromide phase-out plan (third tranche) Spain and UNIDO

**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS**  
**Mexico**

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
Methyl bromide	Canada, Italy, Spain, UNIDO

<b>(II) LATEST ARTICLE 7 DATA (ODP Tonnes)</b>				<b>Year: 2010</b>	
CFC: -240.8	CTC: 0.1	Halons: 0	MB: 667.9	TCA: 0	

<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP Tonnes)</b>										<b>Year: 2010</b>			
Substances	Aerosol	Foam	Halon	Refrigeration		Solvent	Process Agent	MDI	Lab Use	Methyl Bromide		Tobacco fluffing	Total Sector Consumption
				Manufacturing	Servicing					QPS	Non QPS		
MBR										271.9	667.9		

<b>(IV) PROJECT DATA</b>			2008	2009	2010	2011	2012	2013	Total
<b>Montreal Protocol Consumption Limits</b>		MB	904.6	904.6	904.6	904.6	904.6	904.6	
<b>Maximum Allowable Consumption (ODP Tonnes)</b>		MB	895.	795.	675.	525.	325.	0.	
<b>Project Costs (US\$)</b>	Canada	Project Costs	500,000.		500,000.				1,000,000.
		Support Costs	58,527.		58,527.				117,054.
	Italy	Project Costs	1,000,000.						1,000,000.
		Support Costs	120,000.						120,000.
	UNIDO	Project Costs	2,000,000.		2,000,000.		1,200,000.	422,379.	5,622,379.
		Support Costs	150,000.		150,000.		90,000.	31,678.4	421,678.4
	Spain	Project Costs			800,000.		800,000.		1,600,000.
		Support Costs			93,000.		93,000.		186,000.
<b>Total Funds Approved in Principle (US\$)</b>		Project Costs	3,500,000.		3,300,000.		2,000,000.	422,379.	9,222,379.
		Support Costs	328,527.		301,527.		183,000.	31,678.4	844,732.4
<b>Total Funds Released by the ExCom (US\$)</b>		Project Costs	3,500,000.		3,300,000.		0.	0.	6,800,000.
		Support Costs	328,527.		301,527.		0.	0.	630,054.
<b>Total Funds Requested for Current Year (US\$)</b>		Project Costs					<b>2,000,000.</b>		2,000,000.
		Support Costs					<b>183,000.</b>		183,000.

<b>(V) SECRETARIAT'S RECOMMENDATION:</b>	<b>Blanket approval</b>
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## PROJECT DESCRIPTION

1. On behalf of the Government of Mexico, UNIDO, as the lead implementing agency, has submitted to the 66<sup>th</sup> meeting of the Executive Committee a progress report on the implementation of the second tranche of the national methyl bromide (MB) phase-out plan for Mexico, and a request for funding for the third tranche of the project. The level of funding requested is US \$800,000 plus agency support costs of US \$93,000 for the Government of Spain, and US \$1,200,000 plus agency support costs of US \$90,000 for UNIDO.

### Background

2. The MB phase-out plan was approved at the 54<sup>th</sup> Meeting of the Executive Committee at a total funding level of US \$9,222,379, to be implemented by the Governments of Canada, Italy and Spain and by UNIDO in accordance with the agreed conditions between the Government of Mexico and the Executive Committee at the same meeting. The first (US \$3,500,000) and second (US \$3,300,000) tranches of funding were approved at the 54<sup>th</sup> and 60<sup>th</sup> Meetings.

3. At its 63<sup>rd</sup> meeting, noting that the Governments of Mexico and Canada had agreed to transfer to UNIDO the funding associated with the commodities component of the MB phase-out plan for Mexico, with the exception of the first tranche of funding, which was currently under implementation by the Government of Canada, the Executive Committee approved the transfer from the Government of Canada to UNIDO of US \$417,522, plus agency support costs of US \$31,314 associated with the 2012 and 2013 work programmes for the phase-out of MB in commodities in Mexico, and the revised agreed conditions for the phase-out of MB in Mexico (decision 63/13(d)).

### Progress report

4. The national MB phase-out plan proposes to phase out almost 900 ODP tonnes of MB used in several crops and for fumigation of commodities and structures as shown in Table 1 below.

**Table 1. Distribution of MB consumption according to the national phase-out plan**

<b>Crop</b>	<b>Area using MB</b>	<b>MB (ODP tonnes)</b>	<b>No. of farmers</b>
Strawberries	1,097	257.6	69
Tomato	1,023	214.0	90
Chile bell	161	36.7	83
Melon	570	57.6	94
Berries	630	148.2	113
Garlic	54	12.7	28
Other	341	41.1	99
Flowers	205	36.5	118
Commodities/structures		90.0	
<b>Total</b>	<b>4,081</b>	<b>894.4</b>	<b>694</b>

5. Implementation of the first two tranches of the project has resulted in the phase-out of 306.0 ODP tonnes of MB used in soil fumigation through the introduction of alternative technologies, mainly in the tomato and melon sectors. The phase-out of MB in soil fumigation has been supported by training and technical assistance activities. National experts in the different alternatives to be introduced have been hired on a full-time basis to provide training and know-how on the use and management of the alternative technology. A summary of the activities implemented since the approval of the project and up until the end of 2011 is shown in Table 2.

**Table 2. Phase-out activities implemented so far under the MB phase-out plan**

Sector	Alternatives	Equipment provided	Area (ha)	Farmers trained	MB phased out (ODP t)	US\$ disbursed
Melons, watermelons	Grafting	Two new greenhouses; extension of an existing greenhouse	760	40	106.0	1,053,000
Tomatoes	Grafting	Five greenhouses; extension of two existing greenhouse	925	70	88.0	2,343,612
Strawberries	Chemicals, substrate, greenhouse	Alternative chemicals, substrate, two spading machine	395	50		184,289
Flower nurseries	Steam and integrated pest management (IPM)	One steam machine and accessories	2	10	100.0	90,000
Flowers	IPM and steam (one user)	One chopping machine; solar boxes <sup>1</sup>	31	90	12.0	80,000
Technical assistance						1,732,058
<b>Total</b>			<b>2,113</b>	<b>260</b>	<b>306.0</b>	<b>5,482,959</b>

6. Implementation of the post-harvest component of the phase-out plan began in October 2009. Through this the following activities have been carried out: technical assistance to the companies with the selection and application of alternatives to MB, namely phosphine, sulphur fluoride and heat treatment; demonstration and training workshops for dissemination of alternatives in different regions of Mexico; and procurement of equipment for fumigation with phosphine and sulphur fluoride. Implementation of these activities has resulted in training of 290 technicians and the phase-out of 55.0 ODP tonnes of MB.

7. The phase-out activities have been supported by regulatory controls by the Government of Mexico through the licensing and quota systems and through a regulation for pesticides, nutrients for plants, and toxic or dangerous substances and materials.

8. As of February 2012, US \$5,482,959 had been disbursed or obligated out of the total funding of US \$5,794,018 approved for the soil fumigation component. The balance of US \$311,059 will be disbursed in 2012; and of the total funding of US \$1,000,000 approved for the commodities component, US \$567,435 had been disbursed or obligated. The balance of US \$432,565 will be disbursed in 2012.

#### Plan of action

9. The Government of Mexico has committed to achieving the complete phase-out of MB by the end of 2012. Additional activities will be introduced in soil fumigation including: procurement of additional equipment and farm material to be distributed among strawberry, berry, and tomato producers; continued provision of technical assistance to consolidate the technology transfer already done, and training for growers as well as continued monitoring of MB users and of the performance of MB alternatives. The technologies to be introduced are substrate (coco fibre) in strawberries, grafting in tomatoes, and biofumigation in addition to alternative chemicals in berries.

<sup>1</sup> A device developed by Embrapa, Brazil, which use the sun as the source to heat substrates. The project is aimed to demonstrate the use of the device and, if proven effective, seek potential local enterprises that could be interested in manufacturing it, given that Embrapa has given full rights for the manufacturing without paying property rights, except for an acknowledgment to Embrapa.

10. For commodities and structural fumigation, additional equipment will be provided for fumigation (i.e., phosphine generator, detectors, pumps and pipes, equipment for heat treatment and accessories), including technical and awareness-raising workshops for selected users of MB and technical assistance on a continuous basis to end-users.

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

### **COMMENTS**

11. The 2010 MB consumption reported by the Government Mexico under Article 7 of the Protocol of 667.9 ODP tonnes was already 7.1 ODP tonnes below that of 675.0 ODP tonnes allowed for that year under the Agreement with the Executive Committee. MB consumption in 2011 has been estimated at 520.0 ODP tonnes, i.e., 5.0 ODP tonnes below that allowed under the Agreement.

12. UNIDO is the lead agency selected by the Government of Mexico to implement the project. Both the Governments of Italy and Spain, as bilateral agencies, have requested UNIDO to assist them in executing their respective project components.

13. The Secretariat and UNIDO discussed some of the major problems that had been encountered during project implementation and how they had been addressed, as well as the technical viability and long-term sustainability of the technologies selected considering the range of different climates and production conditions in Mexico. UNIDO explained that the complexity of the phase-out plan had been underestimated at the time of its preparation given the number of crops using MB, their geographical distribution and the various alternative technologies to be introduced. Funding for travel in the country had been underestimated, as well as the expertise required to cover the entire country. These limitations were partially overcome through bilateral agreements with farmers, who were asked to cover part of the expertise costs (daily subsistence and travel costs).

14. For success in the adoption of the alternative technologies in particular grafting, in addition to training on how to graft plants, there is a need to provide know-how on the management of the grafted plants once they are planted in open fields. This major issue has been successfully addressed by hiring national experts on a full-time basis to provide continuous training to farmers. Under the commodities fumigation component, the main facilities to be fumigated were first approached. It became clear, however, that the companies providing the fumigation services were the ones who selected the fumigant to be used, not the facilities themselves. Accordingly, the implementation action plan was adjusted, resulting in a larger amount of MB eliminated.

15. UNIDO also noted that this phase-out plan strengthens national capacity for the use of alternatives. By introducing non-chemical alternatives to farmers and fumigators, companies can further support their long-term sustainability. Although available chemical alternatives appear to be cost-effective, their long-term sustainability is questionable given their impacts on the environment, as is currently the case in several non-Article 5 countries. Although technologies such as grafting, biofumigation or heat treatment in structures are more difficult to introduce and require more training, in the long term, they could be considered more sustainable.

### **RECOMMENDATION**

16. The Secretariat recommends blanket approval of the third tranche of national methyl bromide phase-out plan in Mexico at the funding level and associated support costs shown in the table below:

	<b>Project Title</b>	<b>Project Funding (US \$)</b>	<b>Support Cost (US \$)</b>	<b>Implementing Agency</b>
(a)	National methyl bromide phase-out plan, (third tranche)	800,000	93,000	Spain
(b)	National methyl bromide phase-out plan, (third tranche)	1,200,000	90,000	UNIDO

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