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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Fifty-fourth Meeting  
Montreal, 7-11 April 2008

**PROJECT PROPOSAL: MEXICO**

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

Phase-out

- National methyl bromide phase-out plan (first tranche) Canada, Italy, Spain and UNIDO

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

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**PROJECT EVALUATION SHEET – NON-MULTI-YEAR PROJECT  
MEXICO**

**PROJECT TITLE(S)****BILATERAL/IMPLEMENTING AGENCY**

National methyl bromide phase-out plan (first tranche)	Canada, Italy, Spain and UNIDO
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**NATIONAL CO-ORDINATING AGENCY**

Ministry of the Environment (SEMARNAT)

**LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT****A: ARTICLE-7 DATA (ODP TONNES, 2007, AS OF JANUARY 2008)**

Annex E, MB	894.6		
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**B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2006, AS OF JANUARY 2008)**

ODS	Subsector/quantity	Subsector/quantity	Subsector/quantity	Subsector/quantity
MB	QPS / 143.1	Non QPS / 722.6		

**CFC consumption remaining eligible for funding (ODP tonnes)**

CURRENT YEAR BUSINESS PLAN ALLOCATIONS	Funding US \$		Phase-out ODP tonnes
	UNIDO	1,075,000	187.5
Canada	565,000	0	
Italy	1,000,000	90	

<b>PROJECT TITLE:</b>	
ODS to be phased out (ODP tonnes):	895
Project duration (months):	72
Initial amount requested (US \$):	10,097,564
Final project costs (US \$): (see table below)	
Incremental Capital Cost:	12,564,763
Contingency (10 %):	1,256,476
Incremental Operating Cost:	-4,598,860
Total Project Cost:	9,222,379
Local ownership (%):	100
Export component (%):	None
Requested grant (US \$):	9,222,379
Cost-effectiveness (US \$/kg):	10.30
Implementing agency support cost (US \$):	897,291
Total cost of project to Multilateral Fund (US \$):	10,159,670
Status of counterpart funding (Y/N):	Y
Project monitoring milestones included (Y/N):	Y

Cost (US \$)	2008	2010	2012	2013	Total
Canada (project)	500,000	500,000	200,000	217,522	1,417,522
Canada (support)	58,527	58,527	23,411	25,462	165,927
Italy (project)	2,000,000				2,000,000
Italy (support)	230,000				230,000
Spain (project)		800,000	800,000		1,600,000
Spain (support)		93,000	93,000		186,000
UNIDO (project)	1,000,000	2,000,000	1,000,000	204,857	4,204,857
UNIDO (support)	75,000	150,000	75,000	15,364	315,364
Total project	3,500,000	3,300,000	2,000,000	422,379	9,222,379
Total support	363,527	301,527	191,411	40,826	897,291

**SECRETARIAT'S RECOMMENDATION**

For individual consideration

## PROJECT DESCRIPTION

1. On behalf of the Government of Mexico, UNIDO, as the lead implementing agency, has submitted a national methyl bromide (MB) phase-out plan for Mexico for consideration by the Executive Committee at its 54th Meeting. The project will also be implemented with assistance from the Governments of Canada, Italy and Spain. The total cost of the project as originally submitted is US \$10,097,564 plus agency support costs of US \$1,033,832. The project proposes the complete phase-out of 895 ODP tonnes of MB by the end of 2012. The MB baseline for compliance is 1,130.8 ODP tonnes.

### Background

2. At its 42nd Meeting, the Executive Committee approved US \$1,105,000 plus agency support costs of US \$131,209 for the implementation of a technical assistance programme, to phase-out 162.4 ODP tonnes of MB used in soil fumigation and post-harvest applications in order to achieve the 2005 allowable level of consumption. The activities to phase out MB in soil fumigation were implemented by the Government of Spain and UNIDO (lead implementing agency), while the activities to phase out MB in post-harvest applications were implemented by the Government of Canada.

### MB uses

3. The current consumption of MB used as a soil fumigant is 804.4 ODP tonnes. MB is applied as a soil fumigant for various crops as shown in the table below:

<b>Crop</b>	<b>Total area (ha)</b>	<b>Area using MB</b>	<b>MB (ODP tonnes)</b>	<b>No. of farmers</b>
Strawberries	6,269	1,097	257.6	69
Tomato	35,727	1,023	214.0	90
Chile bell	6,420	161.25	36.7	83
Melon	17,888	570	57.6	94
Berries	3,439	630	148.2	113
Garlic	1172	53.8	12.7	28
Other	10,619	341	41.1	99
Flowers	14,428	205	36.5	118
<b>Total</b>	<b>95,962</b>	<b>4,081</b>	<b>804.4</b>	<b>694</b>

4. Over 90 ODP tonnes of MB are also used by about 1,180 fumigators for fumigation of the following commodities and structures to control a wide range of pests:

<b>Applications</b>	<b>MB (ODP tonnes)</b>
Warehouses and silos containing grain and other stored products	36.2
Flour mills, food factories	34.4
Wooden materials (non-QPS)	4.2
Museums, historical buildings	1.4
Trucks, railcars, ships, airplanes	10.6
Miscellaneous (dry chilli, spices, dried fruit, nuts, tobacco products)	3.6
<b>Total</b>	<b>90.4</b>

## **Phase-out project**

5. The national MB phase-out plan has been developed on the basis of the activities implemented through the technical assistance programme approved at the 42nd Meeting of the Executive Committee. The alternative technologies selected for the phase-out of MB as a soil fumigant have been tested in the field. All the alternatives selected have been thoroughly discussed with farmers.

6. The proposed alternative technologies include alternative chemicals as soil fumigants alone or with solarization and non-chemical alternatives, namely soilless substrates, steam, grafting and bio-fumigation. For commodities and structure fumigation, the proposed technologies include phosphine in tablets or pellets or combined with heat and carbon dioxide; controlled atmospheres for products requiring rapid treatment. All the proposed technologies will be implemented together with integrated pest management systems. Training programmes in the use of the various alternatives will be provided to major stakeholders.

7. The total cost of the national phase-out programme has been estimated at US \$10,097,564, with a cost effectiveness value of US \$11.27/kg.

8. Presently, all importers of MB are registered with the Federal Commission for the Protection against Sanitary Risk. All import licenses are subject to approval by the Commission as well as by the Ministry of the Environment and Natural Resources. The Ministry is committed to enforcing a maximum import quota to ensure compliance with the agreed phase-out schedule. Once the project is completed by end of 2013, the Government of Mexico will enact a ministerial decree banning the import of controlled uses of MB.

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

### **COMMENTS**

9. The 2006 MB consumption reported by the Government Mexico under Article 7 of the Protocol of 722.6 ODP tonnes is already 182.0 ODP tonnes below the Protocol's maximum allowable level of consumption for that year (904.6 ODP tonnes). In 2007, MB consumption increased to 894.6 ODP tonnes.

10. Given the range of different climates and production conditions in Mexico, the Secretariat requested further explanations on the technical viability and sustainability of the technologies selected when introduced in various regions of the country. UNIDO, as the lead implementing agency, indicated that the selection of alternatives was based on experience obtained from previous projects carried out in Mexico, as well as from experiences in other countries with similar climatic conditions. About 20 pilot demonstrations had been established by the end of December 2007, and more would be added during the first quarter of 2008, all in different Mexican States, with different climates and social situations for farmers. Furthermore, local experience and economic efficiency has been analyzed in consultation with participating institutions and key growers as well as technical staff and UNIDO.

11. The Secretariat also requested an explanation on how the national, state and/or local institutions involved in the project could benefit in the short term (i.e., during implementation of the project) and the long term, once the project has been completed. UNIDO reported that local

experts have been involved as much as possible from the outset. In the case of grafting technology, there is already a professional Mexican team which is highly reputed among farmers. Grafting technology is to be applied by groups of farmers who will acquire the full technology, making them independent of any supplier. Local producer associations and local experts from institutions in each cultivation area are also involved in the project. The national team will assist farmers directly and transfer the technology to them. The use of international experienced experts will be very limited, as they will basically train the trainers and demonstrate the application of the technology.

12. The Secretariat and UNIDO discussed issues related to the costs associated with the introduction of soilless technology for strawberries, berries and flowers, and grafting for melons, which were higher than the costs of similar projects approved in other countries. On this issue, UNIDO reported that, based on the excellent results obtained during the technical assistance project in the use of grafting for melons, farmers will not accept other alternatives. Soilless technology has been introduced in flowers because the growers already know the technology and it is cheaper than steam, considering the need to transport boilers over long distances, or increase the number of boilers in order to minimize transport costs. With regard to strawberries and berries, chemical alternatives have been proposed in various regions. However, soilless media is proposed where production is too close to urban areas for the use of chemicals to be acceptable. After further discussions on this issue, UNIDO adjusted the cost of the project by reducing the area with the least cost-effective technologies. The adjusted cost of the project amounts to US \$9,222,379, with an overall cost-effectiveness value of US \$10.30/kg. It was also agreed that the Government of Mexico would have flexibility in using the resources available for the phase-out of MB in any crop or application it deems more appropriate.

### **Agreement**

13. The Government of Mexico submitted a draft agreement between the Government and the Executive Committee setting out the conditions for the complete phase-out of MB in Mexico, which is contained in the annex to the present document.

### **RECOMMENDATION**

14. Based on the above considerations, the Executive Committee may wish to consider approval of the project proposal, on the understanding that no more funding will be provided from the Multilateral Fund for the phase-out of controlled uses of methyl bromide in Mexico.



**AGREED CONDITIONS FOR THE PHASE-OUT OF METHYL BROMIDE IN MEXICO (DRAFT)**

1. The Executive Committee:
  - (a) At its 42nd Meeting, approved US \$1,105,000 as the total funds that will be available to Mexico in order to achieve the 2005 allowable level of methyl bromide consumption (phase-out of 162.4 ODP tonnes) ;
  - (b) At its 54th Meeting, approved in principle an additional US \$9,222,379, as the total funds that will be available to Mexico to achieve the complete phase-out of controlled uses of methyl bromide in soil and commodities fumigation (895 ODP tonnes).

2. As reported to the Ozone Secretariat, the methyl bromide baseline for compliance for Mexico is 1,130.8 ODP tonnes; the 2007 methyl bromide consumption was 894.6 ODP tonnes. Accordingly, Mexico has achieved compliance with the Montreal Protocol's 2002 freeze obligation and is in compliance with the Protocol's 20 per cent reduction in 2005.

3. Reductions in accordance with the terms of the above-mentioned projects and other commitments presented in the project document will ensure that Mexico meets the reduction schedule presented below. In this regard, Mexico will reduce the national consumption of controlled uses of methyl bromide, excluding quarantine and pre-shipment applications, to no more than the following levels of consumption in the years listed below:

<b>Year</b>	<b>Annual phase-out (ODP tonnes)</b>	<b>Allowable consumption (ODP tonnes)</b>
2008	0	895
2009	100	795
2010	120	675
2011	150	525
2012	200	325
2013	325	

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

5. Funding for the projects will be disbursed by UNIDO and the Governments of Canada, Italy and Spain and with the following yearly budget breakdown:

<b>Year</b>	<b>Soil fumigation</b>			<b>Commodities</b>	<b>Total funding (US\$)</b>
	<b>UNIDO (US\$)</b>	<b>Italy (US\$)</b>	<b>Spain (US\$)</b>	<b>Canada (US\$)</b>	
2008	1,000,000	2,000,000		500,000	3,500,000
2010	2,000,000		800,000	500,000	3,300,000
2012	1,000,000		800,000	200,000	2,000,000
2013	204,857			217,522	422,379
Total	4,204,857	2,000,000	1,600,000	1,417,522	9,222,379

6. The Government of Mexico has reviewed the consumption data identified in all sectors covered by the project and is confident that it is correct. Accordingly, the Government is entering into this agreement with the Executive Committee on the understanding that, in case any

additional methyl bromide consumption is identified at a later date, the responsibility to ensure its phase-out will lie solely with the Government of Mexico.

7. The Government of Mexico, in agreement with UNIDO and the Governments of Canada, Italy and Spain, will have flexibility in organizing and implementing the project's components that it deems more important in order to meet the methyl bromide phase-out commitments noted above. UNIDO, and the Governments of Canada, Italy and Spain agree to manage the funding for the project in a manner designed to ensure the achievement of the specific MB reductions agreed upon.

8. UNIDO shall report annually to the Executive Committee on the progress achieved in meeting the methyl bromide reductions required in all sectors, as well as on annual costs related to the use of the alternative technologies selected and the inputs purchased with the project funds.

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