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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Fifty-sixth Meeting  
Doha, 8-12 November 2008

**PROJECT PROPOSAL: EGYPT**

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

Fumigant

- National phase-out of MB in horticulture and commodities fumigation except in date use

UNIDO

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

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

(a) National phase-out of MB in horticulture and commodities fumigation except in date use	UNIDO
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**NATIONAL CO-ORDINATING AGENCY**

Egyptian Environmental Affairs Agency (EEAA)

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

Annex E, MB	186.0		

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

ODS	Subsector/quantity	Subsector/quantity	Subsector/quantity	Subsector/quantity
MB	186.0			

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

n/a

**CURRENT YEAR BUSINESS PLAN ALLOCATIONS**

Funding US \$ million

Phase-out ODP tonnes

**PROJECT TITLE:**

ODS to be phased out (ODP tonnes):	184.2
Project duration (months):	60
Initial amount requested (US \$):	2,475,765
Final project costs (US \$):	1,934,994
Incremental Capital Cost:	1,779,085
Contingency (10 %):	177,908
Incremental Operating Cost:	
Total Project Cost:	1,934,994
Local ownership (%):	100
Export component (%):	n/a
Requested grant (US \$):	1,934,994
Cost-effectiveness (US \$/kg):	10.50
Implementing agency support cost (US \$):	145,124
Total cost of project to Multilateral Fund (US \$):	2,080,118
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 Egypt, UNIDO has submitted a national phase-out plan for methyl bromide (MB) in horticulture and commodities fumigation except in date use for consideration by the Executive Committee at its 56<sup>th</sup> Meeting. The total cost of the project, as originally submitted, is US \$2,475,765 plus agency support costs of US \$185,682 for UNIDO. Approval of this project will result in the complete phase-out of all controlled uses of MB in Egypt by the end of 2013.

### Background

2. At its 38<sup>th</sup> Meeting, the Executive Committee approved the national MB phase-out project for Egypt (377.7 ODP tonnes) at US \$2,750,592, plus agency support costs of US \$312,565 for UNIDO, on the understanding that Egypt would meet the MB freeze on consumption during 2003 and 2004, bringing the total consumption level to 190.4 ODP tonnes. Egypt also committed to achieving complete phase-out by 2009, provided that a second portion of the project (agreed funding of US \$2,259,408) was approved (decision 38/41).

3. At its 52<sup>nd</sup> Meeting, the Executive Committee considered a progress report on the implementation of the MB phase-out project, which included a request by the Government of Egypt to change some of the technologies that were selected by major stakeholders when the original project was prepared, as shown in the table below:

<b>Sub-sector</b>	<b>Technology originally selected</b>	<b>Changes in technology</b>
Medicinal	Soilless	Solarization
Lettuce	Soilless	Solarization
Cut flowers	Steam	Soilless plus bio-antagonists
Strawberry	Solarization plus bio-antagonists	Soilless plus bio-antagonists
Strawberry nursery	Steaming plus bio-antagonists	Alternative chemicals
Pepper	Soilless	Grafting
Tomato	Solarization plus bio-antagonists	Grafting and solarization

4. Subsequently, the Committee took note of the progress report on the implementation of the project, noting *inter alia*, that the remaining MB consumption eligible for funding in Egypt would be 131.4 ODP tonnes once the current project was fully implemented and, consequently, the level of funding for the second portion of the project, if submitted, could be up to a maximum of US \$1,752,735 (decision 52/17(e)).

### Progress report

5. Since the 52<sup>nd</sup> Meeting, UNIDO has assisted the Government of Egypt in introducing the alternative technologies, as summarized below:

- (a) Soilless production complemented with bio-antagonist produced by the Agriculture Research Centre has been successfully tested at small-scale strawberries nurseries, which have accepted in principle to continue introducing this technology. Alternative chemicals in combinations with solarization and complemented with bio-control agents have been introduced by large-scale strawberry growers. Most of the costs associated with solarization in combination with bio-control agents have been covered by the growers. The project has only provided technical assistance through national experts;
- (b) Grafting has been introduced in the production of tomatoes. This technology and

solarization has resulted in the phase-out of about 50 per cent of the MB that was previously consumed in the fumigation of this crop. The complete phase-out of MB is expected once the three greenhouses under current installation become fully operational. Similar results have been achieved in the phase-out of MB in melon and cucumbers through the use of grafted plants;

- (c) Reduced dosage of MB for the fumigation of peppers has been achieved through training programmes. MB is also being replaced through the introduction of grafting and soilless culture in bags. It is expected that complete phase-out of MB will be achieved once the availability of grafted plants increases.
- (d) The use of solarization as an alternative technology in the production of lettuce and medicinal plants is still experimental. So far, technical assistance has been provided in the proper use of plastic cover sheets. In cut flowers, technical support and training has been provided on the use of substrates combined with biological agents;
- (e) Assistance to phase out MB used in the commodity fumigation sector has so far been very limited. Based on recommendations by an expert consultant, phosphine is being proposed for bagged wheat held in open-air storage systems, silo bins, and possibly imported grain. There is substantial local research underway on the use of phosphine as a fumigant. As reliance on a single pest control measure for protection of a major component of the country's food supply is unsafe and may not be sustainable, it has been suggested that other alternatives be introduced in the event that phosphine treatments prove ineffective.

6. Of the total funding approved for the implementation of the project, US \$2,481,528 has been disbursed (as of end of August 2008), as shown in the table below. The balance (US \$269,064) will be disbursed in 2008 in additional equipment for the greenhouses and training programme.

Description	US \$					
	2004	2005	2006	2007	2008	Total
International consultants	5,800	7,126	2,404	12,000	50,000	77,330
National consultants		7,200	26,884	33,000	120,000	187,084
Study tours						-
Workshops/training	3,200		30,969	12,000	28,800	74,969
Subcontracts		45,000	144,000	200,000	61,000	450,000
Sundries					6,000	6,000
Equipment			558,145	716,000	412,000	1,686,145
Total expenditure	9,000	59,326	762,402	973,000	677,800	2,481,528
Balance						269,064
Total project budget						2,750,592

### Project proposal

7. The implementation of the national phase-out plan for MB in horticulture and commodities fumigation except in date use will achieve the complete phase-out of 184.2 ODP tonnes, representing the remaining controlled uses of MB in Egypt. The phase-out of MB will be achieved through the full implementation of all the technologies that have been introduced during the previous MB phase-out project.

8. This target will be achieved through the following specific activities:
- (a) Installation of additional greenhouses (80,000 m<sup>2</sup>) for the soilless culture and bio-antagonists for strawberry runners;
  - (b) Two additional grafting units for the production of tomato, pepper, melon and cucumber crops and additional equipment and farm material for the greenhouses that have already been installed;
  - (c) Detectors and safety devices for the application of phosphine and sulphuryl fluoride in commodities and structures; and
  - (d) Training for farmers and fumigators in the use of the alternative technologies.

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

#### **COMMENTS**

9. The Secretariat reviewed the project proposal in light of that approved for the phase-out of 185.6 ODP tonnes of MB at the 38<sup>th</sup> Meeting; the progress reports on the implementation of the project submitted to the 51<sup>st</sup> and 52<sup>nd</sup> Meetings; and the changes to some of the alternative technologies that were selected in the original project as noted by the Executive Committee at its 52<sup>nd</sup> Meeting.

#### MB consumption

10. The 2007 MB consumption reported by the Government of Egypt of 186.0 ODP tonnes is 4.5 ODP tonnes below the maximum allowable level of consumption for that year under the Montreal Protocol. For 2008, the level of MB consumption estimated by the Government would be 190.2 ODP tonnes, which is similar to the maximum level of consumption agreed under decision 38/41 (i.e., 190.4 ODP tonnes).

#### Issue related to the level of funding

11. The issue of the level of funding for the second phase of the project was further discussed between the Government of Egypt and the Secretariat during a mission by the Secretariat in August 2007. At that time, the Secretariat was aware that the Government of Egypt had some concerns about the remaining eligible level of funding. Accordingly, the Secretariat suggested that UNIDO submits a revised proposal with all the modifications to the technologies that were introduced into the project, including a detailed budget associated with the new technologies. The Secretariat would then review the project, and any savings associated with the new technologies would need to be returned to the Fund.

12. In reviewing the proposal submitted to the this Meeting, the Secretariat discussed with UNIDO a number of issues regarding the current situation of the agricultural sector in Egypt as compared to that when the original project was designed, the introduction of new technologies not considered in the original project, their capital and operating costs, the level of training already provided, and also counterpart contributions from stakeholders. Subsequently, UNIDO submitted a revised project covering the corresponding changes in some of the technologies. UNIDO also reported that US \$356,400 has been paid in cash and an additional US \$43,000 in-kind by major stakeholders as a counterpart contribution for the introduction of some of the alternative technologies. The cost of the revised project of US \$1,934,994 is US \$540,771 below that of the original one submitted to this Meeting. However, it is US \$182,259 over the maximum level of US \$1,752,735 set by decision 52/17 (e).

13. Noting the level of the counterpart funding from major stakeholders (i.e., US \$399,400 in cash and in-kind), the positive results so far achieved in the introduction of alternative technologies, the fact that the revised project will complete the introduction of those technologies, and that the Government of Egypt has committed to achieve the phase-out by the end of 2013 , and considering the cost-effectiveness value of the revised project of US \$10.50/kg, the Secretariat agrees with the level of funding of the revised project.

Agreement between the Government of Egypt and the Executive Committee

14. A draft agreement between the Government of Egypt and the Executive Committee on the modalities for implementing the MB phase-out project is contained in Annex I to the present document.

**RECOMMENDATION**

15. As per decision 52/17 (e), the level of funding for the national phase-out plan for MB could be up to a maximum of US \$1,752,735. However, noting that this project will complete the introduction of all alternative technologies to completely phase-out controlled uses of MB in Egypt (except for 6 ODP tonnes used in the fumigation of high moisture dates) by the end of 2012, the good level of cost-effectiveness of the project, the level of counterpart funding so far provided, and in light of the comments by the Secretariat, the Executive Committee may wish to:

- (a) Approve the national phase-out plan for methyl bromide (MB) in horticulture and commodities fumigation in Egypt at a total cost US \$1,934,994 plus agency support costs of US \$145,125 for UNIDO, on the understanding that no additional funding will be provided to the Government of Egypt for the phase-out of controlled uses of methyl bromide in the country; and
- (b) Approving the draft agreement between the Government of Egypt and the Executive Committee for the phase-out of controlled uses of MB contained in Annex I to the present report.

**Annex I**

**AGREED CONDITIONS FOR THE PHASE-OUT OF METHYL BROMIDE IN EGYPT**

1. The Executive Committee:

- (a) At its 38<sup>th</sup> Meeting, approved US \$2,750,592 as the total funds that will be available to Egypt to achieve the reduction of 185.6 ODP tonnes of methyl bromide (MB) used in horticulture and the commodities sector, reducing the aggregated consumption of controlled uses to 185.7 ODP tonnes in 2005;
- (b) At its 52<sup>nd</sup> Meeting, noted the change to some of the alternative technologies that were selected by major stakeholders when the original project was prepared, as requested by the Government of Egypt;
- (c) At its 56<sup>th</sup> Meeting, approved an additional US \$1,934,994 as the total funds that will be available to Egypt to achieve the complete phase-out of MB used in horticulture and the commodities sector (184.2 ODP tonnes) except for 6.0 ODP tonnes used for the fumigation of high moisture dates until a suitable alternative is available (decision XV/12).

2. As reported to the Ozone Secretariat, the MB baseline for compliance for Egypt is 238.1 ODP tonnes; the 2007 MB consumption was 186.0 ODP tonnes. Accordingly, Egypt has achieved compliance with the Montreal 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 Egypt meets the reduction schedule presented below. In this regard, Egypt will reduce the national consumption of controlled uses of MB, excluding quarantine and pre-shipment applications, to no more than the following levels of consumption in the years listed below:

Year	Level of MB consumption (ODP tonnes)				ODP tonnes	
	Soil fumigation	Commodities	Structures	Dates(*)	Total phased out	Total consumption
2009	124.2	51.0	9.2	6.0		190.4
2010	106.2	36.0	9.2	6.0	33.0	157.4
2011	80.2	21.0	9.2	6.0	41.0	116.4
2012	40.2	6.0	3.2	6.0	61.0	55.4
2013	0.0	0.0	0.0	6.0	49.2	6.0
Total					184.2	

(\*) Subject to the availability of a suitable alternative (decision XV/12)

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

5. The Government of Egypt has reviewed the consumption data identified in all sectors covered by the projects 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 MB consumption is identified at a later date (excluding 6.0 ODP tonnes used for the fumigation of high moisture dates), the responsibility to ensure its phase-out will lie solely with the Government of Egypt.

6. The Government of Egypt, in agreement with UNIDO, will have flexibility in organizing and implementing the project's components that it deems more important in order to meet the MB 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 MB reductions agreed upon. The Government of Egypt may choose to accelerate the MB reduction schedule without penalty to the project budget.

7. UNIDO shall report annually to the Executive Committee on the progress achieved in meeting the MB 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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