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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Forty-seventh Meeting  
Montreal, 21-25 November 2005

**PROJECT PROPOSAL: ZIMBABWE**

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

Fumigant

- Total phase-out of methyl bromide used in tobacco (first tranche)

UNIDO

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

<b>PROJECT TITLE</b>	<b>BILATERAL/IMPLEMENTING AGENCY</b>
Total phase-out of methyl bromide used in tobacco (first tranche)	UNIDO

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

**A: ARTICLE-7 DATA (ODP TONNES, 2004, AS OF SEPTEMBER 2005)**

Annex E, methyl bromide	184.2		
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**B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2004, AS OF OCTOBER 2005)**

ODS	Foam	Ref.	Aerosol	ODS	Solvents	Process agent	Fumigant
				Methyl bromide			184.2

<b>CFC consumption remaining eligible for funding (ODP tonnes)</b>	n/a
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**CURRENT YEAR BUSINESS PLAN:** Total funding US \$ 430,000: total phase-out 33.3 ODP tonnes.

<b>PROJECT DATA</b>		2005	2006	2007	2008	2009	2010	Total
<b>Methyl bromide</b>  (ODP tonnes)	Montreal Protocol limits							
	Annual consumption limit							
	Annual phase-out from ongoing projects	0	10	40	60	60	0	170
	Annual phase-out newly addressed							
	Annual unfunded phase-out							
<b>TOTAL ODS CONSUMPTION TO BE PHASED OUT</b>		<b>0</b>	<b>10</b>	<b>40</b>	<b>60</b>	<b>60</b>	<b>0</b>	<b>170</b>
Total ODS consumption to be phased-in (HCFCs)								
Project cost as originally submitted (US \$)		2,121,794	0	2,121,794	0	0	0	4,243,588
<b>Total project funding for UNIDO (US \$):</b>		<b>1,862,486</b>	0	1,862,486	0	0	0	3,724,972
<b>Total support costs for UNIDO (US \$):</b>		<b>139,686</b>	0	139,686	0	0	0	279,372
<b>TOTAL COST TO MULTILATERAL FUND (US \$)</b>		<b>2,002,172</b>	0	2,002,172				
Final project cost effectiveness (US \$/kg)								21.91

**FUNDING REQUEST:** Approval in principle of total ODS phase-out, total project funding and total support costs, and approval of funding for first tranche (2005) as indicated above.

<b>SECRETARIAT'S RECOMMENDATION</b>	For individual consideration
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## PROJECT DESCRIPTION

1. On behalf of the Government of Zimbabwe, UNIDO submitted a project proposal for the phase-out of 170 ODP tonnes of methyl bromide (MB) used in the fumigation of tobacco seedlings, for consideration by the Executive Committee at its 47th Meeting. The total cost of the project, as submitted, is US \$4,243,588 excluding agency support costs.

2. Zimbabwe's MB baseline for compliance is 557.0 ODP tonnes. Between 2001 and 2003, MB consumption decreased in the country from 544.2 ODP tonnes to 97.4 ODP tonnes. However, in 2004, MB consumption increased to 184.2 ODP tonnes, as shown in the table below. Not all MB consumption reduction in Zimbabwe was related to phase-out activities funded through the Multilateral Fund.

<b>MB consumption (ODP tonnes)</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
Flowers	132	147	147	145	45	5	0
Tobacco	665	320	209	382	153	89	170
Commodities and others	22	23	15	17	4	3	14
<b>Total consumption</b>	<b>819</b>	<b>490</b>	<b>371</b>	<b>544</b>	<b>202</b>	<b>97</b>	<b>184</b>

### MB projects and activities already approved for Zimbabwe

3. So far, the Executive Committee has approved the following MB demonstration projects and technical assistance programme in Zimbabwe:

- (a) Alternatives to the use of MB in the production of tobacco drought-resistant seedlings, approved at the 23rd Meeting for UNIDO (US \$370,700), to demonstrate the technical and economic feasibility of non-soil cultivation techniques and application of low doses of other pesticides;
- (b) Alternatives to the use of MB on stacked bags of maize under gas-proof PVC sheets and plastic cocoons (storage), approved at the 27th Meeting for implementation by UNDP (US \$212,850), to demonstrate the application of alternatives to MB in fumigation of durable grains; and
- (c) Enhancing the capability of local agricultural organizations and non-governmental organizations in MB communication, approved at the 30th Meeting for UNEP (US \$25,000), to raise awareness about the phase-out of MB, to enhance the capacity of agricultural organizations and NGOs in promoting MB alternatives; and to disseminate information to farmers about alternatives to MB.

4. The above projects have been completed. Based on the results of the demonstration projects, the Government of Zimbabwe endorsed the formulation of investment projects to allow for the complete phase-out of MB used in the fumigation of tobacco seedlings and commodities.

5. Additionally, at its 31st Meeting, the Executive Committee approved an investment project for the phase-out of 132 ODP tonnes of MB used in the fumigation of cut flowers for implementation by UNIDO, at a total cost of US \$904,200 (decision 31/39 and Annex IX of

document UNEP/OzL.Pro/ExCom/31/61). The project was completed in July 2005, resulting in the total phase-out of 132 ODP tonnes of MB.

#### The tobacco sector

6. In 2003, over 21,000 commercial farmers grew tobacco in Zimbabwe. In the last few years, the tobacco sector has changed drastically because of the land redistribution programme implemented by the Government. As a result, the sizes of the farms substantially decreased while the number of small farm units largely increased. All farmers are members of one of the various grower associations in Zimbabwe. Almost 95 per cent of tobacco products are exported. However, tobacco is not exported by farmers who rely on their own financial resources to produce tobacco; they sell their crop on the tobacco auction market where it is purchased by companies, middlemen and local manufacturers.

#### MB consumption

7. Since the introduction of MB as a fumigant in tobacco seedbeds in Zimbabwe, a systematic application method is followed by all growers. The application rate of MB is about 4.125 g ODP per ha.

8. During the land redistribution programme, difficulties were encountered in importing farm products and issuing preferential loans, resulting in the use of lower doses of MB. This situation resulted in major reductions in crop yields (from 2,480 kg of tobacco per ha in the 2000-2001 season to 1,565 kg/ha in the 2003-2004 season). For the 2004-2005 season, however, growers reacted by increasing MB doses. The increase in acreage due to a better organization of the system as well as the implementation of new credit schemes facilitated the increase in production but also increased MB consumption.

#### Project submitted to the 47th Meeting

9. The project is to phase-out 170 ODP tonnes of MB used in the fumigation of tobacco seedlings in 825 ha of traditional seedbeds. The alternative technology to replace MB selected by all stakeholders in Zimbabwe is the floating tray system installed in micro-tunnels, based on the results of a demonstration project approved at the 23rd Meeting of the Executive Committee. Over the last few years, the Tobacco Research Board has improved the composition of the substrate to be used in the trays to increase the ability of the seedlings to retain additional amounts of water and nutrients under the adverse climatic conditions prevailing in Zimbabwe. This substrate allows for the use of 280 cell-trays (instead of 200 cell-trays), resulting in smaller and less expensive micro-tunnels.

10. The total capital cost of the project has been estimated at US \$11.71 million including technology transfer and training. The operating savings have been estimated at US \$7.48 million. The amount requested by the Government of Zimbabwe from the Multilateral Fund is US \$4.24 million (excluding agency support costs). The cost-effectiveness of the project is US \$24.96/kg. The tobacco-grower associations have agreed to complement project funds in order to make the full investment needed to achieve the complete phase-out of MB.

11. The project will be implemented by UNIDO, under national coordination by the Ozone Office, in close cooperation with all the tobacco associations in Zimbabwe and the Tobacco Research Board. The estimated time frame for the implementation of the project is four years.

## **SECRETARIAT'S COMMENTS AND RECOMMENDATIONS**

### **COMMENTS**

#### MB investment projects submitted by Zimbabwe prior to the 47th Meeting

12. At its 35th Meeting, the Executive Committee considered a project proposal for the phase-out of 27.2 ODP tonnes of MB used in the fumigation of grain storage facilities (UNEP/OzL.Pro/ExCom/35/57). The Secretariat reviewed the project in light of the agreement between the Government of Zimbabwe and the Executive Committee for the phase-out of MB used in the production of cut flowers that was approved at the 31st Meeting. Through this agreement, the Government had committed with a basis of 598 ODP tonnes for reducing its national consumption of controlled uses of MB (the level of consumption reported in the cut flower project in 1999). However, in 2000, Zimbabwe reported MB consumption of 370.7 ODP tonnes under Article 7 of the Protocol, which was 228 ODP tonnes below the consumption level on which the agreement was based. Since the lower figure did not arise through phase-out from Multilateral Fund projects, the Secretariat sought guidance from the Executive Committee on how to reflect the impact of the project in its current agreement with Zimbabwe.

13. Subsequently, the Executive Committee decided to defer approval of the project for the phase-out of MB in grain storage submitted by UNDP on behalf of the Government of Zimbabwe, pending clarification of the exceptional circumstances and whether the decrease in consumption was in fact only temporary (decision 35/46).

14. At its 37th Meeting, the Executive Committee considered an additional project submitted by the Government of France (bilateral cooperation) for the phase-out of 382 ODP tonnes of MB used in the fumigation of traditional tobacco seedlings. The project proposal was prepared by UNIDO (UNEP/OzL.Pro/ExCom/37/56). During the discussion of the proposal, the Executive Committee noted the deferral of the project by the Government of France pending further clarification that technical conditions were in place to ensure project implementation feasibility.

#### A request for the change of the starting point for permanent reductions in MB consumption

15. At its 41st Meeting, the Executive Committee considered a progress report on the implementation of MB phase-out in the cut flower sub-sector, in the context of reports on implementation of approved projects and activities with specific reporting requirements (paragraphs 35 to 41 of document UNEP/OzL.Pro/ExCom/41/68). At that time, the Executive Committee was invited to consider a technical clarification to the agreement between the Government of Zimbabwe and the Executive Committee for the phase-out of MB.

16. The starting point in the agreement for permanent reductions in MB consumption was established at 598 ODP tonnes, which represented the 1999 level of MB consumption in

Zimbabwe as reported in the cut flower project. However, the 1999 MB consumption level subsequently reported by the Government under Article 7 of the Montreal Protocol was 490.3 ODP tonnes (UNEP/OzL.Pro.13/3/Add.1), i.e., 108 ODP tonnes less than the amount indicated in the agreement.

17. On this basis, the Secretariat discussed with UNIDO a proposal to invite the Executive Committee to consider a technical clarification to the agreement to incorporate the correct starting point for Zimbabwe, based on the officially reported 1999 MB consumption of 490.3 ODP tonnes. The reduction in MB consumption funded under the project would remain unchanged, but would be applied to the corrected starting point. Subsequently, the Executive Committee decided to defer consideration of the change of the starting point for permanent reductions in MB consumption in Zimbabwe (decision 41/78).

#### Funding requests for preparation of MB investment projects

18. UNDP and UNIDO submitted for consideration by the 45th Meeting of the Executive Committee, two requests for the preparation of investment projects for the phase-out of MB used in tobacco seedlings (UNIDO) and the fumigation of stored commodities (UNDP).

19. During its review of these requests, the Secretariat noted that as a result of major reductions in economic growth experienced in Zimbabwe in the recent past, MB consumption had decreased from 544.2 ODP tonnes in 2001 to 97.4 ODP tonnes in 2003, which was below the remaining consumption eligible for funding as indicated in the agreement approved at the 31st Meeting of the Executive Committee. Based on these observations, the Secretariat informed UNDP and UNIDO that the two project preparation requests could only be recommended for approval on the understanding that:

- (a) The two projects would address only the current total controlled uses of MB in each sector;
- (b) The two phase-out projects to be prepared would necessarily achieve the complete phase-out of MB in Zimbabwe; and
- (c) The Government of Zimbabwe would not seek any further assistance from the Multilateral Fund for any controlled uses of MB in the country.

#### Technical and cost issues related to the tobacco seedlings project

20. At the 37th Meeting, when the project for the phase-out of MB in tobacco seedlings was submitted for consideration by the Executive Committee, the Secretariat and UNIDO discussed a number of technical and cost issues, all of which have been taken into consideration in the revised project proposal submitted to the 47th Meeting. Subsequently, UNIDO adjusted the cost of the project to US \$3,724,972.

Agreement between the Government of Zimbabwe and the Executive Committee

21. UNIDO assisted the Government of Zimbabwe in drafting a proposal for a revised agreement between the Government and the Executive Committee with proposed commitments and an action plan for the phase-out of MB in the tobacco sector in Zimbabwe, taking into account the current agreement covering the phase-out of MB in cut flowers, approved at the 31st Meeting of the Executive Committee. The draft agreement is contained in Annex I to the present document.

**RECOMMENDATIONS**

22. The Executive Committee may wish to consider:

- (a) Approving in principle the project for the phase-out of methyl bromide used in the fumigation of tobacco seedlings, at a total cost of US \$3,724,972 plus agency support costs of US \$279,373 for UNIDO;
- (b) Approving the draft revised agreement between the Government of Zimbabwe and the Executive Committee for the phase-out of methyl bromide used as a soil fumigant in horticulture contained in Annex I; and
- (c) Approving US \$1,862,486, plus support costs of US \$139,686 for UNIDO, for implementation of the first tranche of the project.





**Annex I****AGREED CONDITIONS FOR PHASE-OUT OF METHYL BROMIDE IN ZIMBABWE  
(DRAFT)**

1. The Executive Committee:
  - (a) At its 31<sup>st</sup> Meeting, approved US \$904,200 as the total funds available to Zimbabwe to achieve the complete phase-out of methyl bromide (MB) used in cut flowers. The project was completed in 2005 with a total phase-out of 132 ODP tonnes of MB; and
  - (b) At its 47th Meeting, approved in principle an additional US \$3,724,972 as the total funds available to Zimbabwe to achieve the complete phase-out of MB used in tobacco seedbeds (additional 170 ODP tonnes).

2. As reported to the Ozone Secretariat, and consistent with information in the project document presented to the Executive Committee, the MB baseline for Zimbabwe is 557.0 ODP tonnes. For 2004, Zimbabwe has reported a MB consumption of 184.2 ODP tonnes under Article 7 of the Montreal Protocol, excluding any amount used for quarantine and pre-shipment applications. Accordingly, Zimbabwe is in compliance with the 2005 Montreal Protocol allowable consumption level.

3. Reductions in accordance with the terms of the above-mentioned project and other commitments presented in the project document will ensure that Zimbabwe meets the reduction schedule presented below. In this regard, Zimbabwe will reduce the national consumption of controlled uses of MB to no more than the following levels of consumption in the years listed below:

Year	ODP tonnes
2005	184.2
2006	174.2
2007	134.2
2008	74.2
2009	14.2

4. The project will phase out all remaining soil uses of MB in Zimbabwe, excluding 14.2 ODP tonnes used in the fumigation of stored grains and MB used for quarantine and pre-shipment applications. Zimbabwe 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 requested by UNIDO in the following two tranches:

Year	US \$
2005	1,862,486
2007	1,862,486

6. The Government of Zimbabwe has reviewed the consumption data identified in 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, should additional MB consumption of controlled uses be identified at a later date, the responsibility to ensure its phase-out will lie solely with the Government.

7. Funding disbursement for the projects will be conditional to the project achievement of milestones programmed and the individual reduction schedule listed above. In case of unjustified delays, UNIDO will inform the Executive Committee and will cancel any further release of funds until all problems are solved and the schedule is brought back on track. If unjustified delays continue, the projects may be cancelled.

8. The Government of Zimbabwe, in agreement with UNIDO, will have the flexibility in organising and implementing the project's components which it deems more important in order to meet 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. UNIDO shall report back to the Executive Committee annually on the progress in meeting the reductions required by these projects.

9. These agreed conditions between the Government of Zimbabwe and the Executive Committee have taken into account the already approved MB phase-out projects in cut flowers. Subsequently, they supersede the conditions agreed at the 31st Meeting of the Executive Committee.

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