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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Fifty-first Meeting  
Montreal, 19-23 March 2007

**REPORT ON IMPLEMENTATION OF APPROVED PROJECTS  
WITH SPECIFIC REPORTING REQUIREMENTS**

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 issue of the document.

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## Introduction

1. The Governments of Canada and Germany, as well as UNDP, UNEP, UNIDO and the World Bank have submitted progress reports on the implementation of the following projects, where specific reporting requirements are contained in the agreements, for consideration by the Executive Committee at its 51st Meeting:

- (a) Afghanistan: National phase-out plan (Government of Germany and UNEP);
- (b) Bolivia: Terminal MB phase-out, excluding QPS applications (UNDP);
- (c) Brunei Darussalam: Implementation of the RMP project (UNDP and UNEP);
- (d) Burkina Faso: Implementation of the RMP project (UNDP and UNEP);
- (e) China: Sector plan for halon phase-out (World Bank);
- (f) China: Sector plan for phasing out 1,1,1-trichloroethelene (TCA) production (World Bank);
- (g) Cuba: National ODS phase-out plan for CFC (Government of Canada and UNDP);
- (h) Cuba: Total phase-out of MB in soil, substrate, storage and structure fumigation (UNIDO);
- (i) Haiti: Implementation of the RMP project (UNDP and UNEP);
- (j) Kyrgyzstan: Technical assistance project to install alternatives and phase-out MB (UNDP);
- (k) Myanmar: Implementation of the RMP project (UNEP and UNIDO);
- (l) Sri Lanka: Alternatives to MB for the eradication of tea nematodes, and the MB phase-out for all remaining uses, excluding quarantine and pre-shipment applications project in Sri Lanka (UNDP);
- (m) Region Africa: Technical assistance for MB reductions and the formulation of regional phase-out strategies for low-volume-consuming countries in Africa (UNDP).

2. Additionally, UNIDO submitted progress reports on the implementation of the national phase-out of MB in horticulture and commodities fumigation in Egypt and on the project for the phase-out of MB in the cultivation of melons, tomatoes, flowers and ornamentals, and strawberries in Guatemala. However, during the review process, UNIDO requested deferral of the reports to the 52nd Meeting of the Executive Committee.

3. The Secretariat reviewed the progress reports in light of the original project proposals, ODS data reported by the Governments concerned under Article 7 of the Montreal Protocol, and relevant decisions taken by the Executive Committee and the Meeting of the Parties.

### Structure of the document

4. The Secretariat has grouped the progress reports by sector and, within the sector, by the main issues presented in the reports. Accordingly, the document is divided into the following four sections:

- Section I: National CFC phase-out plans of Afghanistan (status report), and Cuba (status report and a request for the joint submission of the third and fourth tranches to the 53rd Meeting of the Executive Committee);
- Section II: Completion report on the implementation of RMP in Burkina Faso (a request for utilizing the remaining funding available from the RMP); and progress reports on the implementation of the RMPs of Brunei Darussalam, Haiti and Myanmar (major delays in commencing implementation of activities);
- Section III: Progress reports on the implementation of MB phase-out projects in Bolivia, Cuba, Kyrgyzstan, Sri Lanka and the UNDP technical assistance programme for Africa; and
- Section IV: Progress reports on the China halon sector plan and on the China sector plan for phasing-out the production of TCA.

### **I: NATIONAL CFC PHASE-OUT PLANS**

#### **Afghanistan: National phase-out plan (Government of Germany and UNEP)**

5. On behalf of the Government of Afghanistan, the Government of Germany and UNEP have submitted a progress report on the implementation of the first tranche of the national phase-out plan (NPP) for Afghanistan, the 2005 audit report and the 2007 work programme for consideration by the Executive Committee at its 51st Meeting.

#### *Background*

6. The national phase-out plan (NPP) was approved by the Executive Committee at its 41st Meeting (UNEP/OzL.Pro/ExCom/47/22). Under the NPP, the Government of Afghanistan committed to phasing out all CFCs by 1 January 2010 and CTC by 1 January 2007. The Executive Committee approved in principle US \$1,065,806 plus agency support costs of US \$138,555 for implementation of the NPP. The first funding tranche was approved at the 47th Meeting, and the second (and final) tranche of the project at the 48th Meeting of the Executive Committee.

#### *Progress report and verification*

7. A number of results have been achieved so far. These include: approval of the ODS trade regulations; a training workshop for customs officers; preparation of a handbook for customs officers and distribution of ODS identification kits; and development of a training strategy for refrigeration technicians, including procurement of training equipment and recovery and recycling machines to be distributed in the first quarter of 2007. A project management unit was

established and several awareness and education activities were conducted. In 2006, an audit of the 2005 consumption verification report was undertaken by an independent auditor. As of December 2006, of the total funding level so far approved, US \$339,650 has been disbursed.

*Second work programme*

8. From 2007 until the completion date, the work programme of the Afghanistan NPP will include: training programmes for customs officers and refrigeration technicians; implementation of recovery and recycling operations and technical assistance to the foam and refrigeration manufacturing industries in phasing out CFC consumption, and the automobile service workshops in phasing out CTC uses; and management and monitoring activities.

Secretariat's comments

9. The Secretariat noted the well-written and comprehensive reports submitted by the Government of Germany and UNEP, the enactment of the Environmental Act in 2006 that includes ODS control regulations, the submission of the 2005 verification report, and the results achieved so far to phase out CFC and CTC consumption, i.e., 2005 CFC consumption of 141.2 ODP tonnes, which is 48.8 ODP tonnes below the maximum allowable level of consumption stipulated in the agreement between the Government and the Executive Committee (i.e., 179.7 ODP tonnes), and 0.1 ODP tonnes of CTC consumption, the allowable level being 0.12 ODP tonnes.

10. The Secretariat also noted that activities that could achieve major reductions in CFC consumption, such as the introduction of drop-in refrigerants or retrofits of refrigeration systems, have not been included in the 2007 and future work programmes. This should be addressed, since the allowable consumption of CFCs in 2007 cannot be satisfied solely with the recovery/recycling programme in place. The agencies indicated that the emphasis in the NPP has been on providing a sound basic infrastructure for the implementation of recovery and recycling activities and establishing best practice in the servicing subsector. The Government of Germany has already taken care of procurement of the necessary equipment and supplies for the servicing workshops.

Secretariat's recommendation

11. The Executive Committee may wish to take note of the progress report on the implementation of the national phase-out plan (NPP) for Afghanistan, the 2005 audit report and the 2007 work programme.

**Cuba: National ODS phase-out plan for CFCs**

12. On behalf of the Government of Cuba, UNDP has submitted a request for the third tranche of the national ODS phase-out plan for CFCs (NPP) in Cuba, together with the verification report required by the agreement, for consideration by the Executive Committee at its 51st Meeting.

*Background*

13. The NPP for Cuba was approved at the 43rd Meeting of the Executive Committee at a total cost of US \$2,145,000 plus agency support costs for the Governments of Germany (lead agency), Canada and France, and for UNDP (decision 43/27). The first and second funding tranches were approved at the 43rd and 45th Meetings of the Executive Committee.

14. At the 47th Meeting of the Executive Committee, the representative of Cuba presented a request to transfer the projects assigned to Germany and France under its NPP to UNDP, and to appoint UNDP as the lead agency for implementation of the NPP. This transfer was approved at the 48th Meeting, with US \$550,645 including agency support costs being assigned to UNDP with a revised agreement between the Government and the Executive Committee (decision 48/16 (b)(iii)).

*Progress report and verification*

15. Subsequent to the approval of the revised agreement, the Government of Cuba and UNDP prepared a revised Project Document that was signed in December 2006. The Secretariat reviewed the verification report submitted by UNDP and noted that total CFC imports (i.e., 208,814 ODP tonnes) had been verified through examination of import licenses and actual imports based on customs reports.

Secretariat's comments

16. The Government of Cuba has reported under Article 7 of the Montreal Protocol a CFC consumption of 208.81 ODP tonnes in 2005. This consumption is 103.756 ODP tonnes below the maximum allowable level of consumption under the Montreal Protocol and the agreement with the Executive Committee (i.e., 312.586 ODP tonnes). This reduction in the level of CFC consumption has been achieved through specific activities implemented by the Government of Cuba (i.e., retrofit of domestic refrigerators to non-CFC refrigerant) and the implementation of the NPP component by the Government of Canada.

17. Noting that the implementation of phase-out activities by UNDP in Cuba had just commenced and given the level resources still available, the Secretariat suggested to UNDP to accelerate the implementation of phase-out activities in 2007 and, based on the progress achieved, submit the requests for the third and fourth tranches together to the 53rd Meeting of the Executive Committee. UNDP agreed to proceed in this manner.

Secretariat's recommendation

18. The Executive Committee might wish to:

- (a) Take note on the progress report on the implementation of the national ODS phase-out plan for CFCs in Cuba submitted by UNDP;
- (b) Request UNDP to accelerate the implementation of the CFC phase-out activities in Cuba; and

- (c) Allow the joint submission of the third and fourth tranches of the national ODS phase-out plan for CFCs to the 53rd Meeting of the Executive Committee on the condition that phase-out activities are being implemented and the funding available has been disbursed.

## **II. REPORTS ON IMPLEMENTATION OF RMPS**

### **Burkina Faso: Implementation of the RMP**

19. At its 50th Meeting, the Executive Committee approved the agreement between the Government of Burkina Faso and the Executive Committee for the terminal phase-out management plan (TPMP) at a total amount in principle of US \$345,000 plus agency support costs of US \$44,850 for the Government of Canada and UNEP, as well as the first tranche for the project. In approving the project, the Executive Committee also requested the Government of Canada and UNDP to submit, prior to its 51st Meeting, project completion reports or project cancellation reports for the incentive programme for the commercial and industrial refrigeration end-user sector and monitoring the activities in the RMP as a condition for the approval of funding for the second tranche of the plan (decision 50/15 (c)).

#### *Progress report submitted by UNDP*

20. UNDP submitted project completion reports for the two subprojects under the RMP for Burkina Faso. It is reported that, in spite of the fact that awareness and outreach workshops were conducted and a few cold stores and refrigeration systems in the airport did benefit from the incentives programme, the project encountered many difficulties during its implementation. Due to the difficulties associated with executing the incentive programme, the monitoring component of the RMP could not be implemented. A total of amount US \$43,116 remains unspent from both activities.

#### *Request by the Government of Burkina Faso*

21. On 26 December 2006, the Government of Burkina Faso sent an official communication to the Chair of the Executive Committee, copied to all members of the Executive Committee and the Fund Secretariat, requesting the remaining funding available from the RMP project to be used by the Government for implementation of the activities included in the original proposal, with the submission of a project completion report to the 53rd Meeting.

#### Secretariat's comments

22. The Secretariat noted that the implementation of the 2007 work programme of the TPMP has just commenced. In this regard, it would be advisable to continue with the implementation of the TPMP in 2007 as approved. In 2008, the request by the Government of Burkina Faso to utilize the remaining funding available from the RMP could be considered in the light of the progress report and the request for the second tranche of the project (i.e., 2008 work programme) to be submitted by the Government of Canada.

Secretariat's recommendation

23. The Executive Committee might wish to:
- (a) Note the submission by UNDP of the project completion reports for the incentive programme for the commercial and industrial refrigeration end-user sector and monitoring the activities in the RMP;
  - (b) Note that UNDP will return US \$43,116 to the Multilateral Fund at the 52nd Meeting of the Executive Committee;
  - (c) Consider authorizing the use of the remaining funding available from the RMP for Burkina Faso at the amount of US \$43,116 based on the progress report on the implementation of the first tranche of the TPMP and the request for the second tranche that will be submitted by the Government of Canada in 2008.

**Brunei Darussalam: Implementation of the RMP**

24. UNEP has submitted a progress report on the implementation of the RMP project in Brunei Darussalam for consideration by the Executive Committee at its 51st Meeting.

*Background*

25. At its 44th Meeting, the Executive Committee approved the RMP project for Brunei Darussalam at a total cost of US \$496,000 plus agency support costs of US \$43,030 for UNDP and UNEP. The RMP includes training programmes for customs officers and refrigeration technicians, a technical assistance programme in the servicing sector and monitoring activities.

*Progress report*

26. Subsequent to the approval of the RMP project, UNEP submitted a memorandum of understanding (MOU) to the Ozone Unit for review and comments in February 2005. Since then, this document has been with the Attorney General's Office for review and comments. UNEP has made several attempts to accelerate the signing of the MOU, including letters, telephone calls, emails and meetings, as well as a visit to Brunei Darussalam. However, no progress has been made regarding the MOU.

Secretariat's comments

27. As of 16 January 2007, the Government of Brunei Darussalam had not ratified any of the amendments to the Montreal Protocol. At its 40th Meeting, the Executive Committee decided to require from Parties an official commitment in writing to ratify the London Amendment to the Protocol before funding could be approved for their projects (decision 40/35).

28. According to the data reported by the Government of Brunei Darussalam under Article 7 of the Montreal Protocol, the 2005 CFC consumption was only 0.1 ODP below the maximum level of consumption for that year (i.e., 39.1 ODP tonnes). Based on the 2005 level of CFC consumption and taking into consideration the lack of implementation of the RMP, Brunei Darussalam might be at a risk of not achieving the 2007 and 2010 phase-out targets.

Secretariat's recommendation

29. The Executive Committee might wish:

- (a) To request the Secretariat to send a letter to the Government of Brunei Darussalam urging the Government to ratify the amendments to the Montreal Protocol and, at the same time to accelerate the implementation of the RMP project;
- (b) To request UNDP and UNEP to review the phase-out strategy and plan of action proposed in the original RMP project taking into account the current situation of the refrigeration servicing sector in Brunei Darussalam; and
- (c) To request UNEP to continue its efforts to communicate with the Government of Brunei Darussalam and to report back on progress achieved to the 52nd Meeting of the Executive Committee.

**Haiti: Implementation of the RMP**

30. UNEP and UNDP have submitted a progress report on the implementation of the RMP project in Haiti for consideration by the Executive Committee at its 51st Meeting.

*Background*

31. At its 39th Meeting, the Executive Committee approved the RMP project for Haiti at a total cost of US \$356,956 plus agency support costs of US \$36,418 for UNDP and UNEP. The RMP includes training programmes for customs officers and refrigeration technicians, a recovery and recycling programme and monitoring activities.

32. UNDP submitted a progress report (following decision 49/9(b)(xii)) on the implementation of the recovery and recycling of CFC-12 refrigerant and the monitoring activities in the RMP. In reviewing this report, the Secretariat considered it necessary to also request a progress report on the two training components of the RMP which are being implemented by UNEP. UNDP and UNEP have therefore submitted a revised progress report covering all the activities in the RMP project.

*Progress report*

33. In September 2006, the UNEP CAP team conducted a mission to Haiti with the objectives of meeting with the Minister of Environment and key officers to review the status of ODS in the country, address delays in the implementation of the RMP, and to organize a national policy workshop for the establishment of ODS licensing system. Through these actions, a regulation for the establishment of an ODS licensing system has been drafted and submitted to the Parliament for approval, and a train-the-trainer programme in good refrigeration practices has been proposed for implementation in April 2007. The Minister of the Environment gave his full support and expressed his Government's commitment to implement the Montreal Protocol.

34. As of December 2006, of the total funding approved for the RMP project, US \$56,000 has been disbursed by UNEP for the training programme in good refrigeration practices and

training equipment. Funding has not been disbursed for the two subprojects to be implemented by UNDP.

Secretariat's comments

35. According to the data reported by the Government of Haiti under Article 7 of the Montreal Protocol, the 2005 CFC consumption of 81.4 ODP tonnes is only 3.1 ODP below the maximum allowable level of consumption for that year (i.e., 84.5 ODP tonnes). Based on the 2005 level of CFC consumption and taking into consideration that the implementation of the RMP has not commenced, Haiti might be at a serious risk of not achieving the 2007 and 2010 phase-out targets.

36. Since the approval of the RMP in 2003, major changes have occurred in the use of CFCs in the refrigeration servicing sector in the country. The Secretariat therefore suggested that the agencies consider reviewing the phase-out strategy and plan of action proposed in the original RMP project taking into account the current socioeconomic situation in the country, before commencement of the investment components of the RMP.

37. In the meantime, to avoid major delays, both UNEP and UNDP agreed to continue assisting the Government of Haiti to finalize the ODS legislation. They will also begin implementing a training programme for refrigeration technicians, while enhancing customs capacities and resources for accurate and timely reporting on ODS consumption.

Secretariat's recommendation

38. The Executive Committee might wish:

- (a) To request UNDP and UNEP to review the phase-out strategy and plan of action proposed in the original RMP project taking into account the current situation of the refrigeration servicing sector in Haiti; and
- (b) To request UNEP to report back on progress achieved in revising the plan of action and on the actual implementation of activities, such as the enactment of legislation and the training of refrigeration technicians, to the 52nd Meeting of the Executive Committee.

**Myanmar: Implementation of the RMP**

39. UNEP has submitted a progress report on the implementation of the RMP project in Myanmar for consideration by the Executive Committee at its 51st Meeting.

*Background*

40. At its 45th Meeting, the Executive Committee approved the RMP project for Myanmar at a total cost of US \$115,000 plus agency support costs of US \$11,750 for UNEP and UNIDO. The RMP includes training programmes for customs officers and refrigeration technicians, a recovery and recycling programme and monitoring activities. Following decision 49/10 (c)(xii), UNEP submitted a progress report on the implementation of the RMP for Myanmar.

*Progress report*

41. Implementation of the RMP in Myanmar has not commenced. A MOU for the implementation of the RMP project was prepared by UNEP and sent to the National Commission for Environmental Affairs (NCEA) in November 2005 for its review. UNEP has endeavoured to overcome the difficulties in implementing the RMP project through meetings with government officials, culminating in a meeting between the UNEP Regional Director and the Minister of Forestry and Director General of NCEA in January 2007 in Myanmar. Subsequently, UNEP was informed that the MOU had been cleared by NCEA and would be submitted to Cabinet for approval.

Secretariat's comments

42. According to the data reported by the Government of Myanmar under Article 7 of the Montreal Protocol, CFC consumption decreased from 51.60 ODP tonnes in 2003 to 14.80 ODP tonnes in 2005. The 2005 consumption is 12.35 ODP tonnes below the maximum level allowed for that year (i.e., 27.15 ODP tonnes). Based on the 2005 data and taking into consideration that the implementation of the RMP has not commenced, Myanmar might be at a risk of not achieving the 2007 and 2010 phase-out targets.

43. Noting that the reported drop in CFC consumption pointed to major changes in the use of CFCs in the refrigeration servicing sector in the country, the Secretariat suggested that UNEP and UNIDO consider reviewing the phase-out strategy and plan of action proposed in the original RMP to take any changes into account before actual implementation of the RMP commences.

Secretariat's recommendation

44. The Executive Committee might wish:

- (a) To request the Secretariat to send a letter to the Government of Myanmar urging the Government to accelerate the implementation of the RMP project;
- (b) To request UNEP and UNIDO to review the phase-out strategy and plan of action proposed in the original RMP project, taking into account the current situation of the refrigeration servicing sector in Myanmar, before actual implementation of the RMP commences; and
- (c) To further request UNEP to report back on progress achieved in revising the plan of action and on the actual implementation of activities, such as the enactment of legislation and the training of refrigeration technicians and custom officers, to the 52nd Meeting of the Executive Committee.

### III. METHYL BROMIDE PROJECTS

#### **Bolivia: Terminal MB phase-out, excluding QPS applications (UNDP)**

45. Pursuant to decision 48/16(c)(i)), UNDP submitted a progress report on the implementation of the terminal MB phase-out excluding QPS applications project for consideration by the Executive Committee at its 51st Meeting.

#### *Background*

46. On behalf of the Government of Bolivia, UNDP submitted a technical assistance programme for the complete phase-out of controlled uses of MB to the 35th Meeting of the Executive Committee (UNEP/OzL.Pro/ExCom/35/29). At that Meeting, the Executive Committee approved the project at a total cost of US \$221,032 plus agency support costs of US \$28,734 for UNDP according to the conditions stipulated in an Agreement with the Government of Bolivia (decision 35/42). A progress report on the implementation of the MB project submitted by UNDP was considered by the Committee at its 48th Meeting (paragraphs 58 to 62 of document UNEP/OzL.Pro/ExCom/48/18).

#### *Progress report*

47. A national MB policy and legal framework was established in 2004. Equipment and farm materials to implement the alternative technologies have been installed, and several training programmes have been completed. Changes in the Ministry of Environment in 2006 however resulted in complications in complying with the planned schedule for project completion in early 2006. The monitoring period has been extended to consolidate all the practical experiences through to March 2007, after which the national team will proceed with the preparation and publication of the MB alternatives handbook. Additional field visits during the first quarter of 2007 will be undertaken to verify the extension of the alternatives introduced through the project. The project will be finalized in June 2007. As of December 2006, a total of US \$205,256 has been disbursed. The remaining activities to be implemented in 2007 will be funded from the balance of US \$15,776.

#### Secretariat's comments

48. The MB consumption reported by the Government of Bolivia under Article 7 of the Montreal Protocol has decreased from 1.5 ODP tonnes in 2001 to zero consumption in 2004 and 2005. The MB baseline for compliance is 0.6 ODP tonnes.

49. The date for the completion of the project was originally proposed for December 2005. The current progress report is now proposing to extend the completion date to June 2007. Given this situation and the fact that the Government of Bolivia has reported zero MB consumption since 2004, and is in the process of finalizing a handbook on Bolivia's phase-out experience, the Secretariat requested UNDP to submit a completion report no later than the 53rd Meeting of the Executive Committee.

Secretariat's recommendation

50. The Executive Committee may wish to take note of the progress report on the terminal MB phase-out plan, excluding QPS applications, in Bolivia on the understanding that UNDP will submit the project completion report prior to the 53rd Meeting of the Executive Committee.

**Cuba: Total phase-out of MB in soil, substrate, storage and structure fumigation (UNIDO)**

51. Pursuant to decision 49/16(a), UNIDO submitted a progress report on the implementation of the project for the total phase-out of MB in soil, substrate, storage and structure fumigation in Cuba for consideration by the Executive Committee at its 51st Meeting.

*Background*

52. At its 44th Meeting, the Executive Committee approved an investment project for the total phase-out of MB in soil, substrate, storage and structure fumigation (UNEP/OzL.Pro/ExCom/44/34), at a total level of funding of US \$537,763 plus agency support costs of US \$40,332 for UNIDO to achieve the phase-out of 24.1 ODP tonnes of MB (decision 44/32). Through this project, the Government of Cuba committed to achieving the complete phase-out of controlled uses of MB by 2008. A progress report on the implementation of the MB phase-out project submitted by UNIDO was considered by the Committee at its 49th Meeting (paragraphs 4 to 10 of document UNEP/OzL.Pro/ExCom/49/18).

*Progress report*

53. With regard to MB alternatives for soil and substrate fumigation, equipment was procured and installed, and training programmes on the use of grafting technology were implemented. For storage and structure fumigation, the terms of reference for the equipment and material required for the phase-out of MB in storage facilities, mills and food processing factories were developed, and local fumigators were trained in the application of alternatives in warehouses. As of December 2006, US \$170,738 has been disbursed,

*Further activities to be undertaken*

54. The following activities are proposed to be implemented in 2007-2008: procurement and delivery of the equipment required for the phase-out of MB in storage and soil fumigation; implementation of training courses on integrated pest management applied to horticulture and commodities; and specific training on the use of grafting.

Secretariat's comments

55. The Government of Cuba has reported under Article 7 of the Montreal Protocol a MB consumption of 16.2 ODP tonnes in 2005. This consumption is 24.2 ODP tonnes below the maximum allowable level of consumption under the Montreal Protocol (i.e., 40.4 ODP tonnes) and 7.8 ODP tonnes below the level of consumption that the Government committed to in its agreement with the Executive Committee, for that year. Based on preliminary data, the consumption for 2006 has been estimated as 14.0 ODP tonnes, which is slightly below the maximum allowance level of consumption for that year (i.e., 16.2 ODP tonnes).

Secretariat's recommendation

56. The Executive Committee may wish to take note of the progress report on the implementation of the total phase-out of MB in soil, substrate, storage and structure fumigation in Cuba.

**Kyrgyzstan: Technical assistance project to install alternatives and phase-out MB**

57. Pursuant to decision 48/16(c)(vii), UNDP submitted a progress report on the implementation of the technical assistance programme to install alternatives and phase-out MB in Kyrgyzstan, for consideration by the Executive Committee at its 51st Meeting.

*Background*

58. At its 41st Meeting, the Executive Committee approved a MB technical assistance project in Kyrgyzstan (UNEP/OzL.Pro/ExCom/41/40 and Corr.1) at a total cost of US \$300,000 plus agency support costs of US \$22,500 for UNDP, on the understanding that the Government would not seek additional funding for the phase-out of controlled uses of MB (decision 41/47). The Committee considered a progress report on the implementation of the MB phase-out project submitted by UNDP to the 48th Meeting (paragraphs 92 to 97 of document UNEP/OzL.Pro/ExCom/48/18).

*Progress report*

59. By the end of 2006, 11 training workshops had been organized for MB users; a variety of post-harvest MB alternatives had been procured, tested and assessed; and specialists associated with the Ozone Unit participated in training programmes conducted abroad. Work on an appropriate legislative package also continued. As of December 2006, US \$194,742 has been disbursed, with a remaining balance of US \$105,258.

Secretariat's comments

60. The MB consumption reported by the Government of Kyrgyzstan under Article 7 of the Montreal Protocol has decreased from 13.8 ODP tonnes in 2003 to 7.6 ODP tonnes in 2005. The MB baseline for compliance is 14.2 ODP tonnes. It is expected that MB consumption will be completely phased out by the end of 2008. The Secretariat noted that UNDP had accelerated the implementation of the investment component of the project.

Secretariat's recommendation

61. The Executive Committee may wish to take note of the progress report on terminal MB phase-out, excluding QPS applications in Kyrgyzstan.

**Sri Lanka: Alternatives to MB for the eradication of tea nematodes, and the MB project on phase-out for all remaining uses, excluding quarantine and pre-shipment applications in Sri Lanka**

62. Pursuant to decision 49/16(c), UNDP submitted a progress report on the project on alternatives to MB for the eradication of tea nematodes, and the project on MB phase-out for all

remaining uses excluding quarantine and pre-shipment applications in Sri Lanka for consideration by the Executive Committee at its 51st Meeting.

*Background*

63. At its 27th Meeting, the Executive Committee approved the project on alternatives to MB for eradication of tea nematodes (UNEP/OzL.Pro/ExCom/27/31), at a total cost of US \$310,200 plus agency support costs of US \$40,326 for UNDP. At its 38th Meeting, the Committee approved a project for MB phase-out for all remaining uses excluding QPS applications (UNEP/OzL.Pro/ExCom/38/48), at a total cost of US \$130,000 plus agency support costs of US \$16,900 for UNDP. A progress report on the implementation of the two MB phase-out projects submitted by UNDP was considered at the 48th Meeting (paragraphs 30 to 38 of document UNEP/OzL.Pro/ExCom/49/18).

*Progress report*

64. Subsequent to the submission of the status report to the 49th Meeting, a work plan and associated budget breakdown was prepared for all remaining activities. However, delays in launching the national contracting process had occurred, affecting completion of the two projects. During this period, awareness activities by the Tea Research Institute continued to be implemented. As of December 2006, a total of US \$330,543 has been disbursed for the two projects.

*Further activities to be undertaken*

65. The following activities will be implemented throughout 2007, when the two projects will be completed: training programmes on the use of the alternatives that have been introduced in Sri Lanka; dissemination of information and development of an awareness programme for locally available MB alternatives; development of a seedling certification programme; analysing the feasibility of centralizing tea seedling production; and monitoring the potential re-infestation of soils.

Secretariat's comments

66. In 2005, the Government of Sri Lanka reported under Article 7 of the Montreal Protocol a MB consumption of 1.1 ODP tonnes, which is 3.01 ODP tonnes below Sri Lanka's MB baseline (i.e., 4.080 ODP tonnes).

67. The Secretariat noted that the two projects have not yet been completed. UNDP reported that the Government of Sri Lanka has responded positively its proposal to immediately proceed with contract issuance, and has endorsed a schedule through which the projects will be completed by August 2007.

Secretariat's recommendation

68. The Executive Committee may wish:

- (a) To request the Secretariat to send a letter to the Government of Sri Lanka requesting the Government to complete the implementation of the projects on

alternatives to MB for eradication of tea nematodes, and on MB phase-out for all remaining uses, excluding quarantine and pre-shipment applications, in Sri Lanka no later than August 2007; and

- (b) To request UNDP to submit relevant project completion reports prior to the 53rd Meeting of the Executive Committee.

### **Region Africa: Technical assistance for MB reductions and the formulation of regional phase-out strategies for low-volume-consuming countries in Africa**

69. Pursuant to decision 48/16 (a)(iii), UNDP submitted a progress report on the implementation of a technical assistance for MB reductions and the formulation of regional phase-out strategies for low-volume-consuming (LVC) countries in Africa for consideration by the Executive Committee at its 51st Meeting.

#### *Background*

70. At its 38th Meeting, the Executive Committee approved the technical assistance programme for MB for LVC countries in Africa, to be implemented by UNDP (decision 38/6). Subsequently, the Executive Committee at its 46th, 47th and 48th Meetings considered progress reports submitted by UNDP (UNEP/OzL.Pro/ExCom/46/19, UNEP/OzL.Pro/ExCom/47/10 and UNEP/OzL.Pro/ExCom/48/18).

71. The project will assist five countries with MB consumption (i.e., Congo, D.R. Congo, Nigeria, Sudan and Swaziland) to achieve at least the 20 per reduction in their MB baselines, and 14 additional countries with no MB consumption (i.e., Angola, Benin, Central African Republic, Chad, Comoros, Djibouti, Ethiopia, Gambia, Mauritania, Mozambique, Niger, Somalia, Togo and Zambia) in policy-related activities.

#### *Progress report*

72. Except for Swaziland, all other countries for which assistance to achieve at least the 20 per reduction in their MB baselines is being provided are in compliance with the Montreal Protocol's 2002 MB freeze target, as shown in the table below:

Country	MB consumption (ODP tonnes)					
	Baseline	2002	2003	2004	2005	2005 allowable
Congo	0.9	0.0	1.2	0.0	0.0	0.7
D.R. Congo	1.4	1.3	1.2	0.9	0.6	1.1
Nigeria	2.8	2.0	2.0	1.7	0.0	2.2
Sudan	3.0	3.0	1.8	1.8	1.8	2.4
Swaziland	0.6	0.7	0.0	*	*	0.5

\* Not yet reported as of January 2006

73. The national contract and terms of reference were approved and contract extensions were signed by the five countries during the network meeting in Madagascar, in September 2006. The following table summarizes the status of implementation of activities for the phase-out of MB in these countries:

Activities	Congo	Congo DR	Nigeria	Sudan	Swaziland
Contract/ Terms of reference (TOR)	TOR approved. Contract with the ozone office	TOR and contract approved (2005) but not signed	TOR approved. Contract signed with the ozone office	TOR approved. Contract with the ozone office	TOR and contract approved. Contract with the ozone office finalized
MB major uses	Pre-harvest (vegetables)	Tobacco (to be confirmed)	Tea	Post-harvest (silos)	To be confirmed (citrus in the past)
Non-MB technologies	Metham sodium and non chemical	To be identified (preliminary survey)	Identified	Identified and informed	
National expert	Recruited	Identified	Recruited	Recruited	Recruited
Equipment	Equipment has been purchased	Pending reception of equipment list	Pending reception of equipment list	Pending reception of equipment list	Pending
Policy development consultant (national)	Identified and informed (activities to be implemented)	Pending	Identified and informed (activities to be implemented)	Phosphine	Identified and informed (activities to be implemented)
Payments	1st and 2nd payments. 3rd payment upon submission of legislation update	Requested submission of documents (CV, workplan, signed contract)	Pending	1st and 2nd payments. 3rd payment upon submission of legislation update	Payments could not proceed in the past due to a bank account issue

74. The following observations are specifically associated with countries without MB consumption participating in the technical assistance programme:

- (a) Mozambique sent an official communication to UNDP requesting to be removed from the project;
- (b) Activities have been completed in Burundi, Gabon, Guinea, Mali and Sao Tome, where the legislation has been updated to include MB controls;
- (c) Except for Somalia, all other countries have approved and signed the terms of reference and a contract for hiring legal experts to develop national compliance strategies (one per country). Each contract requires that a final national report, including financial information and details on the national strategy, be submitted to UNDP;
- (d) Payments have been made to all countries except for Angola, Central African Republic, Ethiopia, Gambia and Swaziland, as these have not yet submitted relevant documents;
- (e) Communication problems occurred with Nigeria after the terms of reference were agreed and the contract was signed. This has caused a major delay in the implementation of the phase-out activities in the country;
- (f) A MB consumption issue in Swaziland was identified in 2005, which has not yet been addressed by the Government despite a request sent by the Secretariat on behalf of the Executive Committee;
- (g) As of the time of preparation of the progress report, Somalia has not responded to several communications sent by UNDP on its willingness to participate in the project. Therefore, UNDP is proposing to remove Somalia from the project.

Secretariat's comments

75. Noting that, as of 16 January 2007, Angola, Central African Republic, Ethiopia and Zambia have not yet ratified the Copenhagen Amendment to the Montreal Protocol, the Secretariat sought additional information from UNDP on the assistance being provided to these countries to ratify this Amendment. UNDP reported that within the context of the policy work conducted under the project, the issue of the importance of ratifying the Copenhagen Amendment had been discussed with relevant countries. In addition, UNDP is coordinating work on policy-related issues in the region being implemented by the UNEP CAP team.

76. In regard to the five countries with MB baselines, Congo and Nigeria had reported zero MB consumption under Article 7 of the Protocol for 2005, and D.R. Congo and Sudan reported very small MB consumption for that same year. On this basis, the Secretariat noted that very little or no additional assistance would be required in these countries to achieve the complete phase-out of MB.

77. The Secretariat also pointed out that, in the final report of the project, UNDP should include a detailed description of the MB sectors in all the countries that have a calculated MB baseline (i.e., sectoral distribution of MB uses by crop and/or application), and an indication of whether any additional assistance might be needed to achieve the complete phase-out of MB in those countries.

Secretariat's recommendation

78. The Executive Committee may wish:

- (a) To note the progress report on the implementation of technical assistance for MB reductions and the formulation of regional phase-out strategies for low-volume-consuming countries in Africa;
- (b) To note that Mozambique had sent UNDP an official request withdrawing from the technical assistance programme;
- (c) To request UNDP, in coordination with UNEP CAP, to continue assisting Angola, Central African Republic, Ethiopia and Zambia in the ratification of the Copenhagen Amendment to the Montreal Protocol; and
- (d) To further request UNDP to finalize implementation of the project and submit a comprehensive report with specific conclusions and recommendations for consideration by the Executive Committee at its 53rd Meeting.

**IV. REPORTS ON CHINA HALON AND TCA PRODUCTION PLANS****China: Sector plan for halon phase-out**

79. At its 50th Meeting, the Executive Committee requested the World Bank to submit, preferably to its 51st Meeting and no later than its 53rd Meeting, a plan outlining how funds approved for the halon phase-out project, but not allocated or disbursed, would be used. It also

requested a report for the 51st Meeting on the total number of CO<sub>2</sub> fire extinguishers produced in China in 2005 (decision 50/29 (c and d)).

80. The World Bank did not submit a plan on how funds not allocated or disbursed would be used, but did submit a CO<sub>2</sub> fire extinguisher production verification report.

#### *Background*

81. At its 23rd Meeting, the Executive Committee decided to approve in principle US \$62 million in total funding for the implementation of the China halon sector strategy, as per the general and specific conditions indicated in Decision 23/11 (UNEP/OzL.Pro/ExCom/23/68). Since then the Executive Committee has approved tranches at its 23rd, 26th, 29th, 32nd, 35th, 38th, 41st, 44th, 47th and 50th Meetings.

#### *Verification report*

82. Under the original decision approving the China halon plan, China was required to produce 3.59 million CO<sub>2</sub> extinguishers in 2005 (decision 23/11, paragraph E). A financial penalty was associated with not achieving this target of US \$3.08 per unit. However, the requirement was waived at the 44th Meeting and replaced with the following: “Instead, in case of any shortfall, the equivalent amount of this refund will remain in China for capacity-building to help China comply with the Montreal Protocol commitments for activities in the China Convention Compliance Centre (decision 44/59, Annex XVII of document UNEP/OzL.Pro/ExCom/44/73, footnote 1)”. Since there was a shortfall of 391,876 units, based on decision 44/59, a total of US \$1,206,978 would remain in China for capacity building.

#### Secretariat’s recommendation

83. The Executive Committee may wish to note that US \$1,206,978 would remain in China for capacity building, to help China to comply with the Montreal Protocol commitments for activities in the China Convention Compliance Centre, based on the shortfall in the number of CO<sub>2</sub> fire extinguishers produced, in accordance with decision 44/59.

#### **China: Sector plan for phasing out 1,1,1-trichloroethelene (TCA) production**

84. The World Bank, on behalf of the Government of China, is submitting to the 51st Meeting the report on the verification of the production of 1,1,1-trichloroethelene(TCA) for the year 2006 as required by the terms of the Agreement between the Government of China and the Executive Committee on phasing out the production of TCA. Retroactively, the Bank has also submitted the verification of the TCA production in 2004 and 2005, which was implemented by the Bank in 2005 and 2006. The Secretariat is not attaching these verification reports for reasons of economy, but is ready to provide them upon request by members of the Executive Committee.

#### *Background*

85. The Executive Committee, at its 43rd Meeting in 2004, approved in principle a total of US \$2.1 million for the implementation of the Agreement for the phase-out of TCA production in China. Under this, the Government of China is committed to completely phase out the

production of TCA prior to January 2010, in advance of the requirement of the Montreal Protocol. At the same meeting, the Executive Committee also approved and disbursed US \$1.4 million for the implementation of the 2004-2008 programme. The second tranche of funding, which is also the final tranche, will be released at the last meeting in 2008 upon submission of the implementation programme for 2009 and beyond. The targets and funding in the Agreement are reproduced below.

	Baseline	2004	2005	2006	2007	2008	2009	2010-2014
Montreal Protocol Reduction Schedules	113	113	79	79	79	79	79	34
1. Max allowable total production of TCA (in ODP tonnes) under this agreement	113	113	79	79	79	79	79	0
2. New reduction under this agreement	0	0	34	0	0	0	0	79
3. Impact of previously approved projects	0	0	0	0	0	0	0	0
4. Total annual reduction of the substance (ODP tonnes)	0	0	34	0	0	0	0	79
5. Agreed MLF funding for the country		1.4	0	0	0	0.7	0	0
6. IA support costs		0.105	0	0	0	0.0525	0	0

Rows N° 1, N° 2, N° 3 and N° 4 are in ODP tonnes. Rows N° 5 and N° 6 are in USD million.

86. The agreement mandates the World Bank, as the implementing agency to “providing verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the implementation programme and annual reporting on the implementation of the 2004-2008 Implementation Programme.”

87. There were four TCA plants in China in 2002 (base year for the sector plan). The total TCA production was 1,205 metric tonnes (or 121 tonnes ODP) in 2002. A profile of the 4 plants in 2004 is shown below:

No.	Name of Enterprise	Capacity (mt)	Current Status
TCA 1	Luyue Chemical Industry Co. Ltd	1,000	Main equipment dismantled
TCA 2	Nantong Shiyang Chemical Industry	800	Producing
TCA 3	Changshu 3F Fluorochemical Industry Co. Ltd.	1,200	Idle
TCA 4	Zhejiang Juhua Chemical and Mining Industry Co.	1,500	Producing

88. The scope of the first stage programme between 2004-2008 includes:

- (a) Completely dismantle production facilities of TCA 1 and TCA 3 once this sector plan is approved;
- (b) Close TCA production in TCA 2 and dismantle the facility after sector plan approval;
- (c) Control TCA production in TCA 4 according to table 1, to reduce TCA production to 79 tonnes ODP by 2005.”

#### *Verification of TCA production in 2004, 2005 and 2006*

89. The verifications were carried out as part of the annual CFC verification by Mr. Tony Vogelsberg, the consultant who had been implementing CFC production verifications in China for the World Bank for the past seven years. The verification of TCA production in

2004 took place on January 26, 2005, for 2005 TCA production in February 2006, and for 2006 TCA production in January 2007. A summary of these verifications is presented below.

90. Verification of the permanent closure and dismantling of plants TCA 2 and TCA 3 was carried out by the team in 2005.

91. TCA 3 (Jiangsu Changshu Refrigerant Plant - Changshu 3F) was built in 1995 to provide TCA feedstock to their HCFC-141b plant. It was shut down at the end of March 2000, when they switched to direct use of vinylidene dichloride (VDC) as a feedstock for HCFC-141b. 3F and SEPA signed a contract in December 2004 that provided dismantling costs of US\$20,000 and the TCA plant equipment was dismantled by the 3F plant personnel by 24 December 2004. The verification team viewed a 15-minute DVD showing before and after the dismantlement activities and having visited the building structure confirmed that all equipment related to TCA had been removed.

92. There were 39 personnel in total involved in TCA production. The verification team was given a detailed document listing the names of all 39 people showing where they were gainfully redeployed within the 3F organization, hence no layoff or compensation issues were involved in the plant closure.

93. TCA 2 (Nantong Shiyang, Shiyang) started TCA and benzyl chloride production in 1996 and ceased production on 31 December 2002, due to a labour dispute arising from the change from public to private ownership. After an agreement was signed with SEPA, dismantling was completed by 21 December 2004, with the local EPB and SEPA being present for these activities. Remaining cleanup and scrap removal by the salvage contractor, who carried out all dismantling, was completed by 24 December 2004. There was a very complete multiple page report covering all details, including all key personnel data on the 111 employees that were eligible for termination benefits. The verification team examined a photo album showing before and after dismantling conditions of the plant and viewed a 20-minute DVD showing details of the process, followed by a visit to the plant site, and verified that the entire site was idle and the TCA equipment was gone.

94. TCA 1 (Luyue Chemical Industry Co. Ltd.) had already had most of its production equipment dismantled and was not visited by the verification team.

95. TCA 4 (Zhejiang Juhua Chemical and Mining Industry Co.) is the only active TCA producer and was visited by the verification team in 2005, 2006 and 2007. The plant, with a capacity of 1,500 TPA started in 1995. It operates a batch process, reacting HCl, a by-product from their chloroparaffin process with the vinylidene dichloride (VDC) to produce a crude product. The VDC/TCA crude is then fed to a batch distillation packed column where unreacted VDC is removed before the TCA is vaporized and collected as the final distillate. The final distilled TCA is collected in a receiver tank and packaged directly into 270kg drums, with transfer slips documenting the movement from production unit to the warehouse.

96. The verification team examined: the daily and monthly record of the VDC charge to the batch reactor to derive the VDC consumption; the transfer slips from production to warehouse with data on date; number of drums; net weight of each drum and total weight for each of the twelve months of a year, all VDC shipment invoices from supplier against the reported receipts by the plant for each month; and the yield ration between VDC and TCA. The average ratio of

VDC/TCA is approximately 0.82, which is judged as acceptable, considering the small scale of the production and the technology applied at the plant. Since HCl is a by-product of the chloroparaffin process, it is not measured by the plant and the verification team made no attempt to derive a HCL/TCA ratio. At the same time the financial analyst in the verification team examined the VAT invoices and the product delivery slips for finished product from the warehouse, which was retained by the accounting office of the plant, as well as the material receipt vouchers for VDC purchases co-signed by warehouse and the person responsible for VCD purchase. During the three years that verification was carried at the plant, there has been improvement in record keeping at the plant as a result of the recommendations from the verification team.

97. The verification team concluded that Zhejiang Juhua Chemical and Mining Industry Co. produced 1,056 metric tonnes, or 105.6 ODP tonnes in 2004, 778.825 metric tonnes, or 77.88 ODP tonnes in 2005 and 778.64 metric tonnes, or 77.86 ODP tonnes in 2006. Since this plant is the only active plant, its production represents the total TCA production in the country. The targets in the Agreement for these years are 113 ODP tonnes in 2004, and 79 ODP tonnes each year in 2005 and 2006. As a result China complied with the targets in the Agreement.

98. The verification team confirmed that plants TCA2 and TCA 3 had been totally dismantled and could not revert back to production.

#### Secretariat's comments

99. The verification was implemented by an expert with relevant industry knowledge and many years of experience in carrying out similar verifications. It was done in compliance with the guidelines for verifying ODS production phase-out approved by the Executive Committee. The results confirm that China has complied with the requirements of the Agreement and achieved the necessary reductions in TCA production in the period between 2004-2006.

100. However the World Bank did not submit on time the verification reports in 2005 and 2006 although they had been carried out. The Bank has not confirmed the total dismantling of plant TCA 1 in spite of the fact that it had been reported as having most of its equipment dismantled. Moreover there should be reporting on the progress that has been achieved by China in the policy and technical assistance areas within these years to support the effort by industry to phase out the production of TCA and sustain the progress in future years.

101. The verification reports contain a number of annexes presenting the evidence of the various aspects of the TCA production closure in two of the plants. They also contain the detailed breakdown of the data, including monthly breakdown of TCA production and consumption of VDC, the ratio of VDC/TCA and number of days of production. These are done in compliance with the guidelines for verifying ODS production phase-out.

#### Secretariat's recommendation

102. The Executive Committee might wish to:

- (a) Take note of the verification reports on the TCA production in China for 2004 to 2006 and commends the Government of China and the World Bank for achieving the production reduction targets as specified in the Agreement;

- (b) Request the World Bank to submit a comprehensive report on the status of implementation of TCA production phase-out Agreement, including the efforts of the Government in implementing policies and technical assistance activities in 2008 when submitting the 2007 TCA production verification; and
- (c) Request the World Bank to confirm in 2008 the total dismantling of plant TCA 1, taking advantage of the implementation of other verification missions in China.

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