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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
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**REPORT ON IMPLEMENTATION OF APPROVED PROJECTS WITH SPECIFIC
REPORTING REQUIREMENTS**

Introduction

1. The UNDP, 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 56th Meeting:

- (a) Argentina: Progress report on the implementation of the national CFC phase-out plan and 2009 work programme (UNIDO);
- (b) Bhutan: Terminal Phase-out management plan (2008 progress report and 2009 work programme) (UNEP and UNDP);
- (c) China: Accelerated phase-out of CFCs and halons in China (progress report) (World Bank);
- (d) Colombia: National phase-out plan for Annex A (Group I and II) substances (2007-2008 progress report and 2009 work programme) (UNDP);
- (e) Croatia: Terminal CFC phase-out management plan: verification audit report (UNIDO);
- (f) Ghana: Terminal phase-out management plan (2008 progress report and 2009 work programme) (UNDP);
- (g) India: Progress report on the implementation of the national CFC consumption phase-out plan focusing on the refrigeration service sector and 2009 work programme (Germany, UNDP and UNEP);
- (h) Kenya: Technology transfer leading to methyl bromide phase-out in soil fumigation (2008 progress report and 2009 work programme) (Germany and UNIDO);
- (i) Mexico: National CFC phase-out plan (2006-2007 progress report) (UNIDO); and
- (j) Mexico: Sector plan for phasing out CFC-11 and CFC-12 production sector (Verification of sustained cessation of CFC production) (UNIDO).

2. 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.

Argentina: Progress report on the implementation of the national CFC phase-out plan and 2009 work programme

3. The National CFC phase-out plan (NPP) for Argentina was originally approved at the 42nd Meeting of the Executive Committee in 2004, with an associated level of funding of US \$7,360,850. With the support of the NPP, the Government of Argentina intends to achieve a complete phase-out of its CFC consumption by 2010, starting at a consumption level of 3,220 ODP tonnes in 2004. At the 47th Meeting, the Executive Committee agreed to accept the country's request for the World Bank to act as a co-operating implementing agency. The Executive Committee has already approved all tranches foreseen in the agreement at its 42nd, 47th, 50th and 53rd Meetings.

Progress report

4. The progress report submitted to the 56th Meeting covers the period September 2007 to August 2008. A number of results have been achieved during the implementation of 2007-2008 work programme of the NPP. The supply and distribution of recovery, recycling and reclamation equipment and refrigeration servicing tools was a major investment component under the NPP. Recycling equipment has been delivered and commissioned at nine recycling centres. Additionally, 98 recovery and 3 recovery and recycling machines and sets of servicing equipment and tools have been distributed among 611 refrigeration technicians. A total of 673 new technicians were trained in the reported period. In 2008, additional refrigeration servicing equipment, including 30 recovery machines were purchased and will be distributed among trained technicians.

5. The monitoring of recovery and recycling operations has been conducted through site visits and by establishing a computerized system for data collection and reporting. The following quantity has been recovered/reused/reclaimed during the reporting period (in kg).

Refrigerant	Recovered	Reused	Recycled/ Reclaimed
CFC-11	228	218	
CFC-12	2,378	1,952	50
HCFC-22	5,054	5,054	347
HFC 134	597	597	50
Total	8,257	7,821	447

6. Nine companies for retrofitting or replacement of refrigeration equipment have been identified for the first round of such activities. Phase-out activities in the refrigeration manufacturing sector have been completed. The final inspections and destruction of CFC-based equipment are almost completed. Under the chiller replacement programme, the World Bank is developing a suitable methodology for selection of chillers in the country and a financial mechanism to be used for their future replacement. A pilot project on disposal of retired domestic refrigeration appliances will be initiated in 2008-2009. Work on the implementation of the public awareness campaign and support of the NOU staff will continue.

7. Presently, US \$3.322 million have been spent of the US \$6.861 million approved (48.4 per cent). Additionally, the amount of US \$500,000 was approved as part of the second tranche for the chiller replacement programme to be implemented by the World Bank. These funds are not spent.

Independent verification

8. The verification report describes the government's policies to control the consumption of CFCs, the institutional structure involved. It reviews the official statistics on CFC production, export, import, and importation quotas, and verifies actual import and export by authorized dealers. The report comes to the conclusion that the 2007 consumption amounted to 529.04 ODP tonnes, 157 ODP tonnes lower than maximum allowable CFC consumption established in the Agreement for that year.

2008-2009 Annual Implementation Programme

9. The public and customs awareness programme will continue in the next reporting period. The training programme for refrigeration technicians will focus on R&R operations and retrofitting techniques targeting 500 new trainees. The purchased refrigeration servicing equipment will be distributed among servicing workshops. Six additional R&R centres will be established. The end-user retrofit and replacement programme will also be extended, and the ODS destruction programme will be implemented by setting up a demonstration centre and using voluntary markets in the country. The chiller replacement

programme will continue through establishing a revolving fund in close cooperation with the World Bank.

10. The total expenditure foreseen for 2009 is US \$3.538 million, which is equivalent to the remaining available funds under the Agreement.

Secretariat's comments

11. The Secretariat noted that the CFC consumption of Argentina in 2007 amounting to 529.4 ODP tonnes remained below the maximum allowable consumption specified in the Agreement of 686 ODP tonnes. The CFC consumption does not coincide with the actual use of CFCs by the different sectors, amounting to 1,036.7 ODP tonnes, the balance between use and consumption being drawn from stockpiling. The current level of stockpiling CFCs is already lower than the value of 1,703 tonnes planned for 2010 to satisfy the demand of the service tail.

12. It appears that despite the much lower price of HCFCs (US \$3.80/kg) compared to CFC-12 (US \$12.5/kg), HCFC-22 is the prevalent recovered refrigerant. This might be due to its use in larger, mainly commercial-size units, making it more accessible for recovery and reuse, while the number of appliances still using CFC refrigerants is diminishing. These factors should be taken into account in structuring the R&R network in the country.

13. The verification presents the required information on CFC consumption and on the functioning of the licensing and quota system in the country. The Secretariat noted, however, that the verification of Government's monitoring of its activities under the Agreement has not been covered in the verification report as stipulated in Article 6 and Appendix 5-A, especially the monitoring of the operation of the R&R system. The Secretariat recommended updating the terms of reference for verifications in future years accordingly.

14. The project is approaching its closure with presently a significant remaining balance of US \$4,038,734 including US \$500,000 allocated to the World Bank for the chiller replacement programme. It appears not unlikely that the implementation of proposed activities will continue beyond 2010 when the zero CFC consumption is achieved.

15. It was noted that several important activities planned in 2008-2009 have no quantitative performance indicators that would greatly facilitate the monitoring functions. The Secretariat proposed the incorporation of quantitative targets for the different activities in the AIP. UNIDO has made the necessary additions.

Secretariat's recommendation

16. The Executive Committee may wish to take note of the verification and progress reports on the implementation of the national CFC phase-out plan (NPP) for Argentina, and approve the annual implementation programme for 2008-2009 with a proviso requesting the Government of Argentina and UNIDO to ensure that future verification will include the country's monitoring of its activities under the Agreement through the monitoring institutions defined in Appendix 5-A of the Agreement.

Bhutan: Terminal Phase-out management plan

17. The TPMP for Bhutan was approved at the 52nd Meeting of the Executive Committee at a total cost of US \$75,000 plus agency support costs for UNEP and for UNDP. The approval of the TPMP for Bhutan was on a one time funding basis, with an understanding that the country must submit annual reports on the implementation of the activities undertaken in the previous year. This report covers the

activities implemented in Bhutan from the time of approval until June 2008, and includes the annual work plan for the country for July 2008-July 2009.

Progress report

18. One main achievement for the period was the revision of the country's ODS regulation to further strengthen it in order to ensure that it meets the Montreal Protocol's targets. The most important changes cover the following:

- (a) An update to reflect the recent Adjustment to the Montreal Protocol on HCFCs, which will enable the licensing system for HCFC to be functional;
- (b) Strengthening of penalties, in that for illegal activities concerning ODS and ODS based equipment, the penalties enforced can be in line with the National Environment Protection Act, 2007 as well as the Customs Act. The previous regulation had penalty clauses only as per the Customs Act; and
- (c) The whole regulation is now linked to the National Environment Protection Act 2007.

19. The training component of the TPMP has also achieved a number of targets, which include the following:

- (a) Initiating dialogue with the vocational training centre that will provide MAC training in the future. This dialogue is aimed at understanding the requirements of the training centre to build its capacity; and
- (b) Twenty-three trainers were also trained under the train-the-trainers programme. This training also provided an opportunity to review the needs of the trainers and the technicians in order to update current training methods and materials.

20. Specification of the equipment to be delivered is being finalized. The project has also been able to retrofit the CFC equipment of three end-users.

21. The country also carried out public awareness activities to support the actions done in the TPMP's sub-components.

Secretariat's comments

22. Bhutan reported CFC consumption of 0.1 ODP tonne in 2006 and 2007 under Article 7. The progress report submitted shows a high level of completion of the activities planned for the period, as well as a commitment from the country to ensure that the current consumption will be zero by December 2009, and to sustain this consumption beyond 2010.

Secretariat's recommendation

23. The Executive Committee may wish to take note of the progress report on the implementation of the TPMP for Bhutan, as well as the annual implementation plan for 2008-2009.

China: Accelerated phase-out of CFCs and halons*Introduction*

24. The World Bank is submitting to the 56th Meeting of the Executive Committee, on behalf of the Government of China, a 2008 progress report on the implementation of the accelerated phase-out of CFCs and halons in China. The progress report is not attached but could be made available upon request.

Background

25. The Executive Committee approved in 2004 the accelerated phase-out of CFCs and halons in China at a total funding level of US \$10 million under the bilateral programme of the United States of America. Two disbursements of US \$5 million each took place in 2004 and 2005. The table below summarizes the key targets of the project. However the maximum allowable amounts of production and imports of CTC in row 5 of the table have been revised as a result of the approval of Phase II of the CTC sector plan in 2005.

Table 1

ODS PHASE-OUT TARGETS AS PER THE APP AGREEMENT (ODP TONNES)

	2004	2005	2006	2007	2008	2009	2010
1. Max allowable CFCs production	25300	18750	13500	7400	550	550	0
2. Max allowable CFCs total consumption	25300	18750	13500	7400	550	550	0
3. Max allowable CFC-11 consumption limit in PU Foam Sector	10500	9000	7000	400	0		
4. Max allowable net CFC exports*	NL*	NL*	400	200	100	50	0
5. Max allowable sum of production and imports of CTC	54857	38686	32044	22724	12768	13415	12217
6. Max allowable CTC as CFC feedstock	39306	28446	21276	11396	847	847	0
7. Max allowable halon 1301 production	2000	2000	1000	1000	1000	1000	0
8. Max allowable halon-1301 consumption and export	1500	1500	1000	1000	1000	1000	0
9. Max. allowable net halon-1301 export	NL*	NL*	200	200	100	100	0

*NL-Not Limited. It has been confirmed by the Executive Committee that exports for uses allowed by Parties to non-Article 5 countries is not to be controlled by the limits in this Agreement.

Project description

26. The submission provides an update on each of the on-going sector plans in China from 2004-2008 based on the results of the verifications carried out independently under each of them. These are:

Table 2

Sector Plans in China	Implementing Agency
1. CFC Production Sector Plan	World Bank
2. Halon Sector Plan	World Bank
3. Foam Sector Plan (CFC-11)	World Bank
4. CTC and PA Sector Plan (Phase I)	World Bank
5. TCA Production Sector Plan	World Bank
6. Tobacco Sector Plan (CFC-11)	UNIDO
7. Refrigeration Servicing Sector Plan (CFC)	UNIDO
8. Solvent Sector Plan (CFC-11)	UNDP
9. CTC and PA Sector Plan(Phase II)	World Bank
10. Pharmaceutical Aerosol Sector Plan	World Bank

27. The submission also includes the proposed 2009 work programme under each of these sectors. While there is no need to repeat any of these here, since they have been submitted separately to the Executive Committee under the annual work programmes for each of the sector plans, it is useful to examine those activities that Ministry of Environment Protection (MEP) undertook to involve the local environment protection bureau in the provinces and municipalities in implementing the phase-out of ODS and sustaining the achievements to-date.

Capacity Building Activities for Local Environment Protection Bureau (EPB)

28. 2007 was an important milestone for China to comply with its commitments to the Montreal Protocol when a number of policies needed to be enforced to ensure the complete phase-out of the production and consumption of CFCs and halon 1211. Policy enforcement becomes the key issue for China to ensure the sustainable ODS phase-out. Local EPBs will have to play a more important role.

29. MEP conducted all-around capacity building activities for local EPBs in 2007 in order to strengthen local EPBs' capacity of policy enforcement for sustainable ODS phase-out. The activities that are expected of the local EPBs include a survey of the ODS producers and consumers, public awareness activities, training to government officials at both provincial and municipal levels for ODS management and inspection, improvement of the local policies and the coordination between related local government departments.

30. The 30 provinces China are divided into four categories according to their ODS production and consumption level. MEP organized two training workshops from 5- 9 November 2007 for the local EPBs in Nanjing and Chengdu to launch the capacity building activities. 30 provinces attended the workshops. Since then, 25 provinces had signed contracts with MEP by the end of 2007, and others signed the contracts in the beginning of 2008. For furthering implementation of this project, MEP organized a national workshop from 26 to 28 May, 2008 in Shanghai, which was attended by participants from all the other provinces.

31. US\$ 5 million of the APP funding (total US\$ 10 million) are being used for these capacity building activities. 18 of the total 35 contracts are funded by the APP. The rest are funded by the unallocated funding from the ODS phase-out plan for the solvent sector. The contract amount between FECO/MEP and local EPBs ranges from US \$400,000, US \$300,000, US \$200,000, and US \$150,000 respectively according to their ODS production and consumption level. The contract duration is between

2008 and 2010. The local government will provide counterpart funding for implementation of the contract.

32. Progress has been made under these contracts with the provinces and cities. Some provinces have established their coordinating team in different provincial-level departments and in different cities. Some provinces have introduced a local policy on banning the production and consumption of CFCs and halon. The survey on ODS producers and consumers is ongoing. By the end of August 2008, more than 20 provinces/cities have conducted training workshops with the participation of 600 trainees.

Training of Inspectors to Prevent and Control Illegal Activities

33. MEP continues to attach importance to the work of fighting illegal production of ODS. From the beginning of 2007 to August 2008 MEP identified two cases of the ODS illegal activities. One was the illegal production of methyl bromide. The EPB of Shandong province punished the producer on March 2008. The other was a case of a suspected illegal ODS production site in a small town in Hebei province. The Supervision Bureau of MEP organized an on-site training workshop with the participants of inspectors from the local EPBs of 12 provinces. In addition, MEP also received several reports on suspected illegal activities. MEP investigated and confirmed that those reported activities did not happen.

34. By responding early to reported suspected activities, MEP prevented a number of incidents of potential illegal ODS productions. However, the incentive to produce CFCs illegally seems to be present because of the low feedstock price of CTC and the relatively high price of CFCs. There is a strong case for the government to close monitoring the production and sale of CTC.

35. The following activities are planned in 2009 to make sure the continued success of the APP:

- (a) Accelerated reduction of halon 1301 production: The quotas issued to the remaining producer of Halon 1301, Zhejiang Lantian Environmental Protection Hi-tech Co., Ltd. will not exceed 1,000 ODP tonnes in 2009 as per the requirement of APP. The sale of halon 1301 is limited to military use and other essential uses.
- (b) Zhejiang Juhua Fluorochem Com. Ltd. is allowed to keep the production line but and will produce no more than 550 ODP tonnes CFC-11 and CFC-12 for MDI uses in 2009.
- (c) Sales of stockpiled CFCs will be monitored by MEP and local EPBs. The stockpile will be allowed only for the needs in the servicing and the pharmaceutical sectors.
- (d) The Import and Export Management Office will work closely with the related ODS working teams to ensure that the net export limits on CFC and halons set in the APP agreement will be met.
- (e) MEP will continue to strengthen the policy enforcement by improving the capacity of central and local government. Local EPBs are required to provide their annual report on the implementation of the capacity-building project in 2008 and the action plan in 2009. MEP will provide guidance to local EPBs for the improvement of their capacities in policy enforcement.
- (f) MEP will continue to promote the issuance of the new national regulation on ODS management. If the regulation is approved by the State Council in 2009, MEP will disseminate and strictly enforce it.

Secretariat's comments

36. The 2008 progress report on the results of the accelerated phase-out plan (APP) is informative, especially concerning the recent efforts of MEP in mobilizing the local government in achieving and sustaining the success of the Montreal Protocol commitments. This is especially significant in enforcing the policies of the central government in the various levels of the local government across the vast territory of China. This has seen results already in the efforts by MEP in controlling illegal production of ODS by local environment protection bureau (EPB) reporting and punishing attempts in such illegal activities.

Secretariat's recommendation

37. The Secretariat recommends that the Executive Committee takes note of the 2008 progress report on the accelerated phase-out plan, and encourages China to continue its efforts to closely monitor the import and export of ODS and the illegal trade and production of ODS, thus contributing to the compliance effort in the region and globally.

Colombia: National phase-out plan for Annex A (Group I and II) substances (UNDP)

38. The national CFC phase-out plan (NPP) was approved by the Executive Committee at its 41st Meeting. Under the NPP, the Government of Colombia committed to phasing out all CFCs and halons by 1 January 2010. The Executive Committee approved in principle US \$4.5 million for implementation of the NPP. The Executive Committee has already approved the two funding tranches at its 41st and 47th Meetings.

Progress report

39. A number of results have been achieved so far during the 2007-2008 work programme of the Colombia NPP, including: the certification of an additional 900 refrigeration service technicians, providing training equipment and materials to 44 industrial learning centres, completion of three national training workshops for trainers, distribution of recovery and recycling equipment to some 390 service workshops, and the installation of CFC foaming machines in the commercial manufacturing sector. Many information and awareness activities were also implemented, and further regulations on ODS and ODS-based equipment were prepared.

40. Technical assistance has been provided to halon end users in the telecommunications, banking, oil and energy sectors for the adequate disposal of their existing halon. Support has been given to one company to export about 8 metric tonnes of halon-1301 to the United States for the critical use bank.

Breakdown of the approved project budget

41. The breakdown of the approved project budget (in US \$) is presented in the table below:

Project component	Approved	Expenditure*	Balance
Phase-out of CFCs in the commercial refrigeration manufacturing sector	450,000	185,168	264,832
Technician-licensing programme for the refrigeration and air conditioning service sector	2,730,000	1,148,055	1,581,945
Technical assistance for legal framework	142,000	26,222	115,778
Technical assistance for information and awareness	320,000	229,694	90,306
Halon bank management programme	58,000	7,174	50,826
Technical assistance for implementation and monitoring	800,000	557,603	242,397
Total	4,500,000	2,153,916	2,346,084

(*) Expected expenditure as of December 2008

Independent verification

42. In 2008, an audit of the 2007 consumption verification report was undertaken by an independent auditor who concluded that “2007 data on imports of ODS reported by OUT (the Ozone Technical Unit) are totally reliable; and that Colombia is accomplishing its targets on internal consumption as agreed.” The auditor also recommended that “the control system for imports and exports and the institutional strengthening is widely consolidated. The main recommendation is to persevere on this path.”

2009 work programme

43. From the end of 2008 until its completion date, the Colombia NPP’s work programme will focus on strengthening the refrigeration management plan by certifying 800 refrigeration technicians, providing basic tools and recovery/recycling equipment, and implementing a demonstration project phase aimed at replacing CFC centrifugal chillers. It will also provide technical assistance and support to major ODS and CFC end-users in all sectors. Finally, the work programme will promote institutional coordination and strengthen the implementation and monitoring units.

Secretariat’s comments

44. The Secretariat noted the comprehensive and well written progress report on the implementation of the Colombia NPP, together with the supporting documents, including the verification report on national ODS consumption in Colombia. The 2007 CFC consumption of 263.1 ODP tonnes reported by the Government of Colombia under Article 7 of the Montreal Protocol is already 68.1 ODP tonnes below the allowable level of CFC consumption for that year of 331.2 ODP tonnes. The CFC consumption for 2008 has been estimated at 220.0 ODP tonnes. Upon a request from the Secretariat, UNDP indicated that the entire manufacturing sector has been converted to non-ODS technologies, excluding HCFC-based manufacturing plants.

Secretariat’s recommendation

45. The Executive Committee may wish to take note of the progress report on the implementation of the national CFC phase-out plan (NPP) for Colombia, covering the 2007-2008 period and approve the annual implementation programme for 2009.

Croatia: Terminal CFC phase-out management plan

46. On behalf of the Government of Croatia UNIDO, as the lead agency, has submitted a verification of the CFC consumption in Croatia in the year 2007. Decision 45/54 (d) required, on an annual basis, verification of a randomly selected sample of approved TPMPs for low-volume-consuming countries under implementation. The costs associated with verification would be added to the relevant work programme of the lead implementing agency. Croatia was selected for such verification at the 52nd Meeting, and US \$20,000 were added to UNIDO's work programme in that year.

47. The Terminal CFC phase-out management plan (TPMP) for Croatia was approved in April 2003 at the 39th Meeting of the Executive Committee. The total funds approved in principle amounted to US \$379,700 plus US \$28,479 in support costs. The implementation of this TPMP supports the Government of Croatia in meeting its Montreal Protocol obligations including the complete phase-out of CFCs by 1 January 2010. In order to achieve these targets, a series of investment, non-investment, technical assistance and capacity building activities will be, and are being, implemented by Croatia with the assistance of UNIDO and Sweden. The 2003, 2004 and 2005 annual implementation programmes of this TPMP were approved, and related funds were released at the 39th, 42nd and 46th Meetings of the Executive Committee, respectively. At the 49th Meeting, UNIDO submitted a request by Croatia to approve the fourth, fifth and sixth tranches at that meeting, based on a revised agreement. Through decision 49/26 the Executive Committee approved the revised agreement and the funding for the fourth, fifth and sixth tranches.

48. In the agreement between Croatia and the Executive Committee, the maximum allowable consumption for Annex A, Group I (CFCs) for the year 2005 was 65 ODP tonnes, for 2010 0 ODP tonne; and for the years in between, the agreement provides no exact figure but stipulates that "The By-Law on Substances that Deplete the Ozone Layer (of 30 January 1999) includes a clause on importing on an exceptional basis between 2006 and 2009 up to 21.9 ODP tonnes of Annex A (Groups I and II) and/or Annex B (Groups II and III) or products containing these substances, when these substances and/or products are for preserving human, plant and/or animal life; national defence, safety and fire-fighting; and scientific research safety, when such products cannot be replaced by environmentally-sound and economically-viable alternatives".

49. To be in compliance with the Montreal Protocol, the country should not have consumed more than 109.7 ODP tonnes of CFC in the years 2006, and 32.9 ODP tonnes of CFC in 2007. The same level of consumption applies to the years 2008 and 2009. For 2006 and 2007, the country has reported a consumption of -31.4 ODP tonnes and -5.0 ODP tonnes to the Ozone Secretariat.

50. The verification included reviews of:

- (a) The government policy controlling ODS consumption and production, and the division of responsibility between national institutions for enforcing the relevant policies;
- (b) The government statistics on ODS imports and exports comparing the data from the customs and the amount of quota issues against actual quota applied;
- (c) The list of government authorized importers and exporters against customs records; and
- (d) The records of importers/exporters against the records of customs and the quota issued (representative sampling basis).

51. The verification of the institutional arrangements of Croatia indicated that all the reporting and communication functioned well enough for the purpose and reinforced the present compliance situation of Croatia. The verification provided several data sets with some differences. The main difference is that the

NOU's data shows a consumption of -5 ODP tonnes, while the customs data showed -5.7 ODP tonnes. The verifier assumes that the issues are associated with faulty conversion of weight to volume, mistakes in customs codes and differences in accrediting the exports to a specific year when they occurred around the end of the year. The verifier correctly pointed out that his mandate was limited to verifying whether Croatia has fulfilled the agreement. This has clearly been demonstrated by the verification.

Recommendation

52. The Executive Committee might wish to note the successful verification of the compliance of Croatia in 2007 with its phase-out obligations for CFC consumption under the TPMP.

Ghana: Terminal phase-out management plan

53. The TPMP for Ghana was approved in principle at the amount of US \$344,894 plus agency support costs of US \$25,868 for UNDP by the Executive Committee at its 50th Meeting, to completely phase out CFC consumption in the country by 2009. The Executive Committee has already approved the two funding tranches at its 50th and 53rd Meetings.

Progress report

54. A number of results have been achieved so far during the 2008 work programme of the TPMP for Ghana, including training of additional refrigeration technicians in conversion from CFC to hydrocarbon-based refrigerants, training of additional customs officers, improvement on the servicing of MAC units, retrofit of refrigeration systems mainly to hydrocarbon-based refrigerants and CFC-MAC units to HFC-134a, and implementation of several awareness-raising activities on ODS-related issues. As of September 2008, US \$259,760 has been disbursed. An additional US \$85,134 is expected to be disbursed in the remainder of 2008 and 2009.

2009 work programme

55. The Government of Ghana commits to implementing a number of activities under the 2009 work programme of the TPMP. These include the additional training and certification of refrigeration service technicians, particularly in the northern part of the country, additional training and awareness-raising of customs officers, retrofitting of small-capacity commercial refrigeration systems and cold rooms to alternative refrigerants (mainly hydrocarbon-based and CFC-MAC units to HFC-134a); continued public awareness and information dissemination activities; and management and monitoring activities.

Secretariat's comments

56. The 2007 CFC consumption of 4.2 ODP tonnes reported by the Government of Ghana under Article 7 of the Montreal Protocol is already 1.2 ODP tonnes below the level allowable for that year of 5.4 ODP tonnes. The CFC consumption for 2008 has been estimated at 5.4 ODP tonnes (assuming that all importers would import their maximum allocated quota by end of 2008).

57. Upon a request for additional information on the retrofitting of CFC-based refrigeration systems, UNDP indicated that, with adequate training and development of skills, technicians readily embrace alternative technologies when they are convinced of the performance and efficiency of alternatives and, most of all, when it is practically demonstrated that they represent an economic advantage. UNDP also provided details on incentives and performance tracking under the retrofit project.

Secretariat's recommendation

58. The Executive Committee may wish to take note of the progress report on the implementation of the terminal phase-out management plan for Ghana in 2008 and approve the annual implementation programme for 2009.

India: Progress report on the implementation of the national CFC consumption phase-out plan focusing on the refrigeration service sector and 2009 work programme

59. Pending.

Kenya: Technology transfer leading to methyl bromide phase-out in soil fumigation

60. At its 38th Meeting, the Executive Committee approved in principle US \$1,595,811 to achieve the complete phase-out of MB used for soil fumigation in Kenya. Of this amount, US \$574,492 was allocated to the Government of Germany for the phase-out of MB used in horticulture and US \$1,021,319 was allocated to UNDP for the phase-out of MB used in cut flowers. The total funding that was approved in principle has been disbursed to the agencies in tranches approved at the 38th, 39th, 42nd, 44th and 50th Meetings of the Executive Committee.

61. Upon a request by the Government of Kenya submitted to the 53rd Meeting, the Executive Committee decided to change UNDP for UNIDO as the implementing agency responsible for the completion of the phase-out of MB in the cut-flower sector and approved the agreed revised conditions for phase-out of MB in Kenya (decision 53/15).

Progress report

62. Since the approval of the project, several alternative technologies have been introduced and their long-term sustainability is being monitored. Several specific training programmes for farmers and major stakeholders continue to take place on farms and at the training facility, equipment and farm material required for the various alternative technologies selected have been installed, continued technical activities have been provided on farms, training manuals and information materials have also been distributed. As of the end of August 2008, 84.4 ODP tonnes of MB has been phased out in the cut flowers (52.0 ODP tonnes) and horticultural (32.4 ODP tonnes) sectors. As of September 2008, US \$398,376 has been disbursed. An additional US \$112,283 is expected to be disbursed in 2009.

Plan of action for 2009

63. Project-specific activities in 2009 will include training workshops for additional MB users and other relevant parties, and the production and dissemination of information will continue. Follow-up technical assistance activities will be conducted at the farm level, including monitoring of existing pilot projects, continued implementation of appropriate MB alternatives, along with the procurement and installation of farm materials and equipment, and cooperation with major stakeholders.

Secretariat's comments

64. The Secretariat noted the comprehensive and well written progress report on the implementation of the proposal on the technology transfer leading to MB phase-out in soil fumigation in Kenya. The 2007 MB consumption of 17.4 ODP tonnes reported by the Government of Kenya under Article 7 of the Montreal Protocol is already 156.6 ODP tonnes below the level allowable for that year of 174.0 ODP tonnes. Noting that the project will be completed by the end of 2009, the Secretariat suggested that the Government of Germany and UNIDO assist the Government of Kenya in strengthening current ODS regulations to ban controlled uses of MB.

Secretariat's recommendation

65. The Executive Committee may wish to take note of the progress report on the implementation of the proposal on the technology transfer leading to MB phase-out in soil fumigation in Kenya in 2008, approve the annual implementation programme for 2009 and request the Government of Germany and UNIDO to assist the Government of Kenya to strengthen current ODS regulations to ban controlled uses of MB once the project is completed.

Mexico: National CFC phase-out plan

66. The National CFC phase-out plan (NPP) for Mexico was approved by the Executive Committee at its 42nd Meeting with an associated level of funding of US \$8,794,500 for implementation by UNIDO and the World Bank. Subsequently, this total was reduced by US \$200,000 as part of decision 53/24 of the Executive Committee to approve the phase-out of MDI. Through the NPP, the Government of Mexico intended to achieve a reduction in its CFC consumption according to the reduction schedule established in the Agreement with the Executive Committee, and planned to complete the phase-out by the end of 2009, starting at a consumption level of 4,403 ODP tonnes in 2004. The Executive Committee has already approved all three funding tranches foreseen in the Agreement at its 42nd, 45th and 50th Meetings. UNIDO has submitted a progress report on the implementation of the NPP in the years 2006 and 2007.

Progress report

67. This progress report covers the period September 2007 – August 2008. A number of activities were carried out during this period, including the training of 20 trainers and some 2,000 refrigeration service technicians, distribution of 900 sets of refrigeration servicing equipment, and upgrading of two training centres for courses in good practices in refrigeration. Fourteen recycling centres were selected and furnished with the necessary equipment, and an agreement was signed with each of them to collect and recycle refrigerants. All the technical personnel at these centres have been trained. An on-line monitoring system has been established for registering and reporting data on recovered, recycled and reused refrigerants. The public awareness programme has continued to raise awareness about ozone related issues among the general public and especially children. The documentation submitted by UNIDO contains a brief reference to the chiller replacement programme being implemented by the World Bank. It was reported that four additional chillers have been replaced during the reporting period.

Expenditures and remaining project budget

68. Funds of US \$500,000 were allocated for the implementation of the chiller component of the NPP, which is the responsibility of the World Bank under the NPP. These funds have been completely disbursed according to the progress report of the World Bank. The UNIDO components, with an approved funding of US \$8,094,500, presently have a balance of US \$770,840, representing less than 10 per cent of the total.

Independent verification

69. In 2008, a verification of the 2007 consumption data was undertaken by an independent verifier. The verification examined in detail the export and import structure, information flow and responsibilities of the national institutions involved, and verified the data for imports and exports. The result is a negative consumption of 125 ODP tonnes of CFC for 2007, since the significant national stockpiles were reduced to cover both use as well as export. The conclusions of the verification report confirm that the actions of the Government are adequate, resulting in full compliance with the Montreal Protocol and the Agreement between the Government of Mexico and the Executive Committee.

Annual implementation programme

70. The 2008-2009 implementation programme includes a number of activities related to the project management, such as the monitoring and verification of national CFC consumption, and the operation of the coordination office. The Government has envisaged monitoring of the implementation of its decree restricting imports of CFCs. In the training programme for national service technicians, 100 workshops are planned to be carried out during the 12-month period starting September 2008, bringing the total number of certified refrigeration service technicians to 5,000. The programme for provision of equipment to certified refrigeration workshops will continue, with a planned total of 2,300 equipped servicing workshops. The training programme for customs officers is planned to continue during 2008-2009. As part of the recovery and recycling programme, efforts will be focused on upgrading the personnel of 14 R&R centres and the improvement of management of refrigerants. The chiller replacement programme will be concluded with replacement of the last four to six chillers. Additionally, installation, training and technical support will be provided for CFC destruction facilities, US \$120,000 being allocated for these activities.

Secretariat's comments

71. The NPP in Mexico has fulfilled the requirements of the related Agreement between the Government of Mexico and the Executive Committee, the consumption being well below the target specified. The actions set out in the 2007-2008 implementation programme have been substantially completed, so far 90 per cent of the funds approved have been used for all tranches. The NPP in Mexico does not foresee any more funding tranches, but will continue to expend the remaining funds under the annual implementation programme for 2009 and future annual implementation programmes, according to the requirements of the NPP. The verification was satisfactory and followed the terms of reference.

72. The work undertaken appears well planned, executed and co-ordinated. Upon request from the Secretariat, UNIDO provided clarifications on the co-ordination of the R&R activities under the NPP with the refrigerant recovery network established within the FIDE programme, and on the impact of the national R&R system. The Secretariat had also noted that the verification of the Government's monitoring of activities under the Agreement as stipulated in Article 6 and Appendix 5-A has not been covered in the verification report. Additional information has been received from UNIDO in this respect. The Secretariat recommends updating the terms of reference for verifications in future years accordingly.

73. Due to large stockpiling from the production sector closure in Mexico, the consumption, which was negative for 2007, does not reflect the situation of CFC use in the different sectors, since the country has reduced its significant stockpiles. In the year 2007, the use of CFCs appears to have increased in the refrigeration servicing sector by 63 ODP tonnes as compared to the year 2006, and by 31 ODP tonnes in the MDI sector, in comparison with the year 2006.

Secretariat's recommendation

74. The Executive Committee may wish to take note of the verification and progress reports on the implementation of the national CFC phase-out plan (NPP) for Mexico, and approve the annual implementation programme for 2008-2009, requesting UNIDO to ensure that a verification of the country's monitoring of its activities is carried out as part of future verifications as specified in paragraph 6 of the Agreement approved by decision 42/32.

Mexico: Sector plan for phasing out CFC-11 and CFC-12 production sector

75. The Government of Mexico, through UNIDO, has submitted the report on the technical and financial audit of the cessation of CFC production at Quimobásicos Plant in Mexico for the year 2007.

Background

76. The Executive Committee at its 40th Meeting in 2003, approved in principle a total of US \$31.85 million for the implementation of the Agreement for the Mexican CFC production sector, under which the Government of Mexico was committed to a dual condition of a maximum level of total CFC production of 22,000 metric tonnes for the period 2003-2005, and at the same time not exceeding the maximum allowable production limit specified in the Agreement for each of the three years. With the successful implementation of the 2003 to 2005 annual work programmes, the Government of Mexico, with assistance from UNIDO, ceased CFC production in August 2005 at the Quimobásicos plant and met all the conditions of the Agreement ahead of the planned completion date. UNIDO submitted the verification report of the 2005 CFC production to the 47th Meeting of the Executive Committee in 2005 and received the final tranche of US \$11.85 million plus the associated support cost.

77. The Executive Committee requested the Government of Mexico and UNIDO to continue monitoring the CFC production closure at Quimobásicos between 2006-2009 to ensure sustainability of the closure. The future audits should focus in particular on:

- (a) No entry of CTC into the plant after the closure date of CFC production;
- (b) Verification of stock, purchase and use of HF for HCFC-22;
- (c) Production verification of both Quimobásicos plants;
- (d) Stock verification of the inventory of CFC-11 and CFC-12 and reductions of the inventory over the years;
- (e) Verification of consumption norms of chloroform and HF for HCFC-22 production;
- (f) Changes carried out in the plant, equipment additions and modifications; and
- (g) Any other checks needed for full compliance.

78. Accordingly, UNIDO carried out a technical and financial audit of the Quimobásicos plant to ensure that there was no CFC production in 2007 and that the plant had been refitted for good for the production of HCFC-22.

Technical and financial audit of cessation CFC production at Quimobásicos in Mexico in 2007

79. The verification was carried out on 26th and 27th of June 2008 by Ess Jay Consultants, the same consulting firm that had performed the verifications between 2003 to 2006. While the team, which

consisted of a technical consultant and an accountant, conducted the audit following the same procedures as they had when carrying out the verifications in the previous years, they also looked for signs and indicators that could convince them of the permanent cessation of CFC production.

80. The Auditors verified:

- (a) Procurement of key raw material such as CTC by the plant;
- (b) Current production in Plants 1 and 2 (through sample verification);
- (c) Stock of finished goods, CFC-11 and CFC-12, and reduction through sales until end December 2007; and
- (d) Plant modifications, if any.

81. The Auditors verified that there had been no purchase and no receipt of CTC at the Plant since the cessation of CFC-11/12 production in August 2005. The auditors received a copy of the letter from the Government of Mexico declaring that they had not issued any licence to import CTC to Quimobásicos in 2007.

82. The verification confirmed the CFC production, inventory and sales data submitted by the Plant for the period January to December 2007 as shown in the Table 1 below. The plants now produce only HCFC-22. Also, there has been no incident or occurrence reported of major loss of finished product.

83. The audit confirmed that changes to convert Plant 2 from CFC-11/CFC-12 mode to HCFC-22 mode had been completed by the enterprise. The field verification confirmed and found adequate the activities undertaken by the Government and the enterprise for the permanent cessation of CFC production.

Table 1

CFC-11 AND CFC-12 PRODUCTION AUDIT SUMMARY

	Item	Data	Remarks
A	Maximum Production Level Agreed for 2006 (mt)	0	Production terminated
B	Actual Production 2006 (mt)	0	
C	Difference +/- (mt)	0	
D	Actual Production in 2003 & 2004 (mt)	16,738	
E	Total Production in 2003-2005 (mt)	21,939	
F	Max. Allowable Production 2003-2005 (mt) under the Agreement (mt)	22,000	(In accordance with the Agreement)
G	Unutilised quota of 2003-2005 "Maximum Production Level Agreed" (mt)	61	
H	Opening Stock as of 1 st January 2007 (mt)	2,066	
I	Other additions	0	
J	Total opening stock as of 1 st January 2007 (mt)	2,066	(H+I)
K	Gross production (mt)	Nil	
L	Filling & other losses (mt)	14	Filling losses are accounted as depletion of stock and adjusted to reduce closing stock
M	Net production (mt)	0	Gross Production minus Losses (K-L)
N	Domestic Sales (mt)	415	
O	Export sales (mt)	167	
P	Total sales including losses (mt)	596	(N+O +L)
Q	Closing stock December 2007 (mt)	1,470	Opening stock plus net production minus sales. (J+M-P)

84. There has been no purchase and receipt of CTC since the cessation of CFC production, and CTC stock verification showed zero for 2007. There is no CTC production in the country.

Table 2

	31 December 2006	31 December 2007
Closing Stock of raw material CTC	0	0
Closing Inventory of CFC-11	120 mt	82 mt
Closing Inventory of CFC-12	1,946 mt	1,388 mt

Secretariat's comments

85. The audit on the cessation of CFC production was carried out by UNIDO in accordance with decision 47/29 of the Executive Committee and was implemented in compliance with the guidelines for verifying ODS production phase-out approved by the Executive Committee. The results confirmed that there had been no CFC production by Quimobásicos Plant after the closure in August 2005, and that the Plant had switched to the production of HCFC-22. The results also reconfirmed the actions that had been taken by the Government of Mexico to ensure the permanence of the CFC production closure, including revoking the import license of the company to purchase CTC, one of the key feedstock for the production of CFC.

86. UNIDO requested the agreement of the Executive Committee that the verification in 2007 should be the final verification that would be carried out by UNIDO in co-operation with the Government of Mexico. The Secretariat shares the view of UNIDO that the verifications that were carried out in 2006 and 2007 after the cessation of CFC production in August 2005 indicated the commitment by the Government of Mexico and the company Quimobasicos to sustain the permanent closure of CFC production in the country. This has been enforced by the decision of the Government to revoke CTC import licenses to the company, and the fact that the enterprise has completed the necessary modifications to switch to HCFC-22 production for good. One way of continuing monitoring the closure would be requesting the national ozone office to maintain supervision of the Quimobasicos Plant as part of the effort to sustain the national CFC phase-out plan.

Secretariat's recommendations

87. The Secretariat recommends that the Executive Committee:

- (a) Commends the Government of Mexico and UNIDO for the good effort in complying with decision 47/29 and implementing successfully the audits in 2007 and 2008 to confirm the sustained cessation of CFC production at the Quimobásicos plant in Mexico; and
- (b) Agrees that the 2007 verification would be the final exercise to be undertaken by UNIDO and requests the national ozone office to maintain monitoring of the CFC production closure at the Quimobasicos Plant as part of the effort to sustain the national CFC phase-out plan in future years.

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