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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-sixth Meeting
Montreal, 16-20 April 2012

# REPORT ON IMPLEMENTATION OF APPROVED PROJECTS WITH SPECIFIC REPORTING REQUIREMENTS

## Introduction

1. The Secretariat requested bilateral and implementing agencies to submit to the 66th meeting outstanding progress reports on the implementation of projects, where specific reporting requirements are contained in the agreements and in the relevant decisions of the Executive Committee taken between the 59th and 65th meetings.

2. This document includes reports for the following countries, which had been submitted after the eight week deadline for the 65th meeting but the Secretariat was unable to review them: Burkina Faso (terminal phase-out management plan (TPMP) verification report); China (solvent sector progress and verification reports); Côte d'Ivoire (TPMP verification report); Indonesia (national phase-out plan (NPP) verification report); Kyrgyzstan (TPMP progress report); Sao Tome and Principe (TPMP verification report).

Structure of the document

3. The Secretariat has grouped the progress reports into six sections:

Section I: National phase-out plans (NPPs) and terminal phase-out management plans (TPMPs)

Section II: Sector phase-out plans

Section III: Institutional strengthening

Section IV: Resource mobilization for climate co-benefits

Section VI: ODS destruction projects

Section VI: HCFC demonstration and investment projects

## I. NATIONAL PHASE-OUT PLANS (NPPs) AND TERMINAL PHASE-OUT MANAGEMENT PLANS (TPMPs)

4. UNDP, UNEP, UNIDO and the World Bank have submitted the following reports:

(a) Brazil: National CFC phase-out plan (2010 verification report, 2011 progress report and 2012 action plan) (UNDP)

(b) Burkina Faso: Verification report on the implementation of the terminal phase-out management plan (2008) (UNEP)

(c) Cote d'Ivoire: Verification report on the implementation of the terminal phase-out management plan (2007-2008) (UNEP)

(d) Indonesia: National phase-out plan (performance verification of 2007-2008 (UNDP)

(e) Kyrgyzstan: Progress report on the implementation of the terminal phase-out management plan (third and final tranche) (UNEP)

(f) Philippines (the): National CFC phase-out plan (2009 and 2010 verification report and 2012 action plan) (UNEP)

(g) Sao Tome and Principe: Verification report on the implementation of the terminal phase-

out management plan (2007-2009) (UNEP)

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

**Brazil: National CFC phase-out plan (2010 verification report, 2011 progress report and 2012 action plan) (UNDP)**

6. The NPP to completely phase out CFC consumption in Brazil by 1 January 2010 was approved by the Executive Committee at its 37th meeting, at a level of funding approved in principle of US $26,700,000. The eighth and final tranche of the NPP was approved by the Executive Committee at its 59th Meeting. The Committee also requested annual verification of the national CFC phase-out plan for Brazil, until verification of the 2010 consumption had been submitted. At the 63rd meeting the Executive Committee requested the Government of Brazil, with the assistance of UNDP, to submit annual implementation reports regarding the previous year to the first meeting of the Executive Committee each year until the NPP had been completed. UNDP has submitted to the 66th meeting the verification of consumption for the year 2010, the 2011 progress report, as well as a 2012 annual implementation plan.

*Verification report*

7. The verification report demonstrated that Brazil has met the requirements of the agreement between the Government of Brazil and Executive Committee on CFC phase-out for 2010. In 2010 Brazil had zero imports and 13.8 ODP tonnes of exports of CFCs.

*Progress report for 2011*

8. In the refrigeration servicing sector the majority of tool sets purchased were distributed. A reclaim centre is now operating in the South Region of Brazil (Porto Alegre) and the last storage facility was established. Forty-seven recycling units were installed in 2011, bringing the total to 95 with another 25 remaining. Two public buildings were selected to receive CFC free chillers, and the bidding process for the procurement has been initiated. Four establishments were selected for a demonstration of retrofits or replacements of commercial refrigeration equipment, and procurement initiated. Finally, a documentary regarding the transition from CFC metered-dose inhalers to alternatives was distributed and a booklet prepared.

*Annual implementation plan for 2012*

9. For 2012, a number of activities are planned in order to conclude the NPP: establishing and commissioning equipment for the remaining 25 CFC-12 recycling units in the north of Brazil together with recovery tools for technicians that can also be used with HCFCs and some HFCs, commissioning of replacement chillers for two public buildings; retrofit or replacement of another 18 units of commercial CFC-12 equipment; finalization of a technical standard on CFC venting limits; improvement of the national trade module for the CFC control system, to incorporate tracking tools for locally recovered, recycled and reclaimed refrigerants; and operational and financial closure of the project.

Secretariat`s comments

*Verification report*

10. The data submitted in the verification report are in agreement with the Article 7 consumption data submitted by Brazil to the Ozone Secretariat.

*Approved funds and balances*

11. As of December 2011, all funding except US $1,808,548 (7 per cent) had been disbursed. UNDP reported that the remaining balance is already committed for NPP activities. Two activities have potential synergies with the HCFC activities but will not have any HCFC phase-out associated with them, namely the CFC venting/emission control measures, and the improvement of the management of stocks originating from recovery. Where possible these synergies have been taken into account in the HPMP for Brazil that was approved at the 64th meeting.

*Annual implementation plan for 2012*

12. The Secretariat also requested further information on the equipment being procured for small and medium enterprises in the commercial refrigeration sector. UNDP informed that the equipment will be based on non-ODS technologies.

13. The Secretariat noted that the progress report also provided data on HCFC-22 and CFC recovery and recycling centres and the reclaim centres indicating that in 2011 the centres have processed smaller amounts of CFC-12 and HCFC-22 compared to 2009. The amount of CFC-12 processed in the reclaim centres appears to have declined from 4.8 tonnes in 2010 to 2.9 tonnes in 2011, while that of HCFC-22 has increased to 27.4 tonnes in 2011 from 16.9 tonnes in 2010. The lower recovery rate of CFC-12 can be explained by the replacement of CFC-based refrigeration equipment as well as the fact that owners of large industrial CFC-12 based equipment are appearing to stockpile CFCs for maintenance purposes. The increase in the recovery and reclamation rates for HCFCs is related to the limits placed on the growth of HCFC consumption set by the Government of Brazil in the context of its HPMP. Virgin HCFC-22 prices have increased by about 30 to 40 per cent and thus the refrigerant recovery and reclamation business for HCFC-22 has become more economically viable.

14. UNDP provided further information in response to a request for more details on the extent to which activities planned for 2012 could contribute to sustaining zero consumption of CFCs and facilitate the phase-out of HCFCs in Brazil. CFC is only available in Brazil through the RRR structure (replacement of equipment, recovery, recycling and reclaim activities). This structure provides high quality recycled/reclaimed CFC for equipment until owners are able (economically or technically) to replace or retrofit CFC-based equipment. CFCs recovered from the replacement of chillers and small commercial equipment can be recycled not only to ensure a smooth transition and reduce the risk of illegal trade, but also to provide a cost-effective alternative to venting high global warming potential (GWP) CFCs. The RRR structure installed can also deal with HCFCs and some HFCs. The finalization of a technical standard on CFC venting limits in the commercial refrigeration sector will also include venting limits for HCFCs. Improvement of the "CFC national trade module" will provide a tracking tool for recovered, recycled and reclaimed refrigerants. This tool monitors national trade, provides timely information to the authorities and can be replicated for monitoring HCFCs and HFCs.

Secretariat's recommendation

15. The Executive Committee may wish to consider:

(a) To note the 2010 verification report and the 2011 annual implementation report of the national CFC phase-out plan (NPP) in Brazil;

(b) To approve the annual implementation plan for 2012; and

(c) To request UNDP to continue reporting progress on the implementation of the national phase-out plan for Brazil, while providing such further reports in a format and on a schedule consistent with the outcome of the discussion under agenda item 7(d); and

(d) To request the Government of Brazil and UNDP, on completion of the NPP, to submit a project completion report in accordance with the format noted at the 65th meeting.

**Burkina Faso: Verification report on the implementation of the terminal phase-out management plan (2008) (UNEP)**

*Background*

16. On behalf of the Government of Burkina Faso UNEP, as the lead agency, has submitted a verification of the CFC consumption in Burkina Faso for 2008 in accordance with decision 45/54(d). The TPMP for Burkina Faso was approved by the Executive Committee at its 50th meeting, to completely phase out CFC consumption by 1 January 2009. Total funding of US $345,000, plus agency support costs of US $23,400 for UNEP and US $21,450 for the Government of Canada, was approved in principle by the Executive Committee and released to each agency in two tranches at the 50th and 54th meetings of the Executive Committee.

*Verification report*

17. The verification demonstrated that there was no CFC consumption in Burkina Faso in 2008 and that the ODS licensing system was performing well. Consumption of HFC-134a and HCFC-22 was found to be increasing. The report stated that Burkina Faso has a strong efficient regulation for the control of ODS and, since January 2006, a sub-regional regulation covering the West African Economic and Monetary Union (UEMOA) (Burkina Faso, Benin, Côte d'Ivoire, The Gambia, Mali, Senegal and Togo), which bans the import and export of all Annexes A, B and E substances and equipment containing them, has also been in force.

Secretariat's comments

18. The Government of Burkina Faso has reported zero consumption of CFCs under Article 7 of the Montreal Protocol for the years 2008, 2009 and 2010.

19. UNEP informed the Secretariat that the UEMOA regulation has not yet been amended to ban HCFCs, however it currently allows licensing of imports of HCFCs and HCFC-based equipment.

20. The Secretariat noted that the verification report contained a recommendation to analyse the existing regulations in order to take into account HCFCs and HCFC-based equipment. UNEP explained that a new draft regulation to introduce annual quotas from 2013 has been submitted to the Government for endorsement since the current regulations (national and sub-regional) only require the issuance of an import permit but have no restriction on the amount allowed.

Secretariat's Recommendation

21. The Executive Committee may wish:

(a) To take note of the report on the verification of the CFC consumption for Burkina Faso and the country's compliance with its phase-out obligations for CFC consumption; and

(b) To further note with appreciation that Burkina Faso has reported zero consumption of CFCs under Article 7 of the Montreal Protocol since 2008.

**Côte d'Ivoire: Verification report on the implementation of the terminal phase-out management plan (2007-2008) (UNEP)**

*Background*

22. On behalf of the Government of Côte d'Ivoire UNEP, as the lead agency, has submitted a verification of the CFC consumption in Côte d'Ivoire for 2007 to 2008 in accordance with decision 45/54(d). The TPMP for Côte d'Ivoire was approved by the Executive Committee at its 54th meeting, to completely phase out CFC consumption by 2009. Total funding of US $565,000 plus agency support costs of US $36,660 for UNEP and US $21,225 for UNIDO was approved in principle and released to each agency in two tranches at the 54th and 58th meetings of the Executive Committee.

*Verification report*

23. The verification demonstrated that Cote d'Ivoire achieved the overall targets for reducing ODS consumption at the national level for 2008. Actual ODS consumption in 2008 was 20 ODP tonnes compared to the maximum allowable of 44.1 ODP tonnes under its agreement with the Executive Committee. In 2007 ODS consumption was found to be 50 ODP tonnes. Along with other countries of the sub-region, the Government of Cote d'Ivoire has adopted the UEMOA regulation. The country's licensing system is performing well and the Government bodies involved communicate effectively.

Secretariat's comments

24. The Government of Côte d'Ivoire has reported 35.5, 12.0, 12.0 and zero ODP tonnes of CFC consumption under Article 7 of the Montreal Protocol for 2007, 2008, 2009 and 2010 respectively.

25. The Secretariat noted significant discrepancies between the data reported under Article 7 for 2007 and 2008 and the data on imports in the verification report. CFC consumption in 2007 was reported as 50 ODP tonnes in the verification report compared to 35.5 ODP tonnes reported under Article 7, and in 2008 the respective data was 20.0 ODP tonnes compared to 12.0 ODP tonnes. UNEP informed the Secretariat that the National Ozone Unit indicated that the verification report contains the most accurate data and that it had agreed to rectify the Article 7 data already submitted. The Government of Cote d'Ivoire, with the assistance of UNEP, submitted an official letter to the Ozone Secretariat on 15 March 2011 requesting to change its CFC consumption reported under Article 7 data for the year 2007 and 2008.

Secretariat's Recommendation

26. The Executive Committee may wish:

(a) To take note of the report on the verification of the CFC consumption in Cote d'Ivoire and the country's compliance with its phase-out obligations for CFC consumption under the terminal phase-out management plan for the period 2007 to 2008 and that the country has reported zero consumption of CFCs in 2010.

(b) To note the request by the Government of Cote d'Ivoire to the Ozone Secretariat to change its CFC consumption data reported under Article 7 for the years 2007 and 2008.

**Indonesia: National phase-out plan (performance verification of 2007-2008) (UNDP)**

*Background*

27. The NPP for Indonesia was approved at the 44th meeting of the Executive Committee, with UNDP as lead implementing agency and UNIDO and the World Bank as cooperating implementing

agencies, to completely phase-out the controlled use of CFCs, CTC and TCA, prior to 1 January 2008. The NPP for Indonesia was a combination of several earlier sector plans and new activities and introduced verification of consumption at a national level. The funds approved for NPP activities in six tranches from the 37th to the 54th meetings amounted to US $20,645,507 plus agency support costs of US $1,754,701.

*Verification report*

28. The verification, carried out from July to August 2009, demonstrated that Indonesia has achieved the overall targets for the ODS consumption at the national level for 2007 and 2008 with actual ODS consumption of 202.56 ODP tonnes and up to 3.32 ODP tonnes in 2007 and 2008 respectively. The ODS consumption targets were met for all sectors (foam, MAC servicing, refrigeration manufacturing, refrigeration servicing, aerosol, and solvent) in 2008, and for all sectors except the MAC sector in 2007. It was also reported that policy and regulation actions and awareness raising actions related to each sector were implemented thoroughly.

Secretariat's comments

29. The Executive Committee, when approving the last tranche of the NPP for Indonesia, did so with the proviso that UNDP as the lead implementing agency, on behalf of the Government, would continue providing annual reports and verifications of the CFC consumption for the remaining duration of the Agreement, that is, covering the years up to 2010. The verification reports for 2009 and 2010 are currently outstanding; and so are annual implementation reports for 2008, 2009, 2010 and 2011. UNDP pointed out that Indonesia banned the imports of CFCs, CTC, TCA and halons with effect from 1 January 2008, ahead of the Montreal Protocol schedule and that the verification carried out for 2008, confirmed compliance with the terms of the Executive Committee agreement. Data submitted by Indonesia under Article 7 of the Montreal Protocol indicates zero consumption of ODS (other than HCFCs) for the years 2008, 2009 and 2010. UNDP indicated that no substantive activities were carried out during 2009 and 2010, except monitoring, and that the remaining budget of approximately US $16,000 had been programmed for concluding activities in 2012.

30. The Secretariat pointed to the fact that the verifier could only verify the 2008 consumption approximately, as being at or below 3.32 ODP tonnes, due to data discrepancies between the customs data (0 ODP tonnes), information from the Ministry of Trade (0 ODP tonnes) and information from the Bureau of Statistics (BPS) (3.32 ODP tonnes). The data from BPS was generated based on both written and electronic customs records provided to that office by 28 customs offices. The verifier looked into the matter and identified that the discrepancy seems to stem from the written records submitted. The Secretariat pointed out to UNDP that the Government of Indonesia had reported zero consumption of CFCs under Article 7 for the year 2008, and requested clarifications. UNDP explained that the verifier, in using comparative data from a number of sources, identified 3.32 ODP tonnes of imports in the data from the Central Statistics Bureau of Indonesia, while not finding imports in two other data sources; however, the Government is generally requested to use, in case of data discrepancies, the customs data as the more reliable source, showing zero consumption. Therefore, the Article 7 data will remain as reported.

31. The verifications confirm that Indonesia has complied with the Agreement between the Government and the Executive Committee on the phase-out of CFCs in Indonesia, and that the country's consumption in 2007 and 2008 has been below the maximum allowable consumption specified in that Agreement.

Secretariat's recommendation

32. The Executive Committee may wish:

(a) To take note of the verification report on the 2007-2008 ODS consumption in Indonesia;

(b) To request UNDP, on behalf of the Government of Indonesia, to submit the verification reports for 2009 and 2010 to the 68th meeting; and

(c) To request UNDP to report progress on the implementation of the national phase-out plan (NPP) for Indonesia as follows:

(i) For the years 2008 to 2011 to the 67th meeting, while providing these reports in a format consistent with the outcome of the discussion under agenda item 7(d); and

(ii) For the years 2012 and future years, while providing such further reports in a format and on a schedule consistent with the outcome of the discussion under agenda item 7(d).

(d) To request the Government of Indonesia and UNDP, on completion of the NPP, to submit a project completion report in accordance with the format noted at the 65th meeting.

**Kyrgyzstan: Progress report on the implementation of the terminal phase-out management plan (third and final tranche) (UNEP)**

33. The TPMP for Kyrgyzstan was approved in principle at the 50th meeting of the Executive Committee with a total value of US $550,000 and agency support costs of US $54,065 for UNDP and UNEP as implementing agencies. All the funding foreseen was approved in three tranches at the 50th, 55th and 60th meetings. At the 60th meeting the Government of Kyrgyzstan was requested to submit a report on the work programme associated with the third and final tranche of the TPMP.

*Progress report*

34. Since the approval of the third tranche in April 2010 a number of workshops and seminars were held across Kyrgyzstan including: three regional recovery and recycling (R&R) workshops in 2010 (92 participants); five workshops on best practices in refrigeration in 2010 and 2011 (115 participants); nine workshops to provide training to customs officers and environmental inspectors (265 trainees); and seven workshops on metered-dose inhalers held in hospitals in 2010 (261 participants). In addition, 77 customs officers from Kyrgyzstan participated in two regional workshops held in the country in cooperation with the Europe and Central Asia (ECA) enforcement project. A recovery unit and multi-gas analyzer was procured and provided to the National Refrigeration Association.

Secretariat's comments

35. Kyrgyzstan reported zero consumption of CFCs in 2010 under Article 7 of the Montreal Protocol. As of December 2011, all funds approved for the TPMP have been disbursed.

36. At the 63rd meeting it was noted by the Secretariat that the initial focus of Stage I of the HCFC phase-out management plan (HPMP) for Kyrgyzstan would be to ensure that additional refrigerant recovery equipment and tools are supplied to support the training of technicians since it was estimated that less than 50 per cent of them are adequately equipped with basic recycling capability (document UNEP/OzL.Pro/ExCom/63/37). In response to a question from the Secretariat on whether activities carried out in 2010 and 2011 in the context of the TPMP have ameliorated this situation, UNEP

responded that most of the equipment purchased, with the exception of that purchased in the last round of procurement under the TPMP, is now out of date in comparison to the advanced tools now available. The implementing agencies informed that some centres would be modernized as part of the HPMP; it is currently unlikely that the funding under the HPMP will be sufficient to upgrade all centres.

37. UNEP provided some clarifications on the amounts of CFC-12 recovered and recycled in Kyrgyzstan (see Table 1). Out of a total of 18,973 kg of CFCs recovered in Kyrgyzstan, 6,455 kg was recycled by R&R centres cumulatively from 2003 to 2011.

**Table 1: Amounts of CFCs recovered and recycled in Kyrgyzstan**

| Year | Recovered and re-used (filtering on spot) (kg) | Recycled and purified by R&R centres ( kg) |
|---|---|---|
| 2003 | 750 | 0 |
| 2004 | 2864.6 | 1101.9 |
| 2005 | 3930.8 | 1501.4 |
| 2006 | 1569.8 | 1013.7 |
| 2007 | 1900 | 588 |
| 2008 | 2142.8 | 700 |
| 2009 | 2734 | 843 |
| 2010 | 1939 | 707 |
| 2011 | 1142 | 186 |
| Total | 18,973 | 6,455 |

38. The National Ozone Unit of Kyrgyzstan confirmed that there are five R&R units to cover the country. Three units, purchased in 2003 through the refrigerant management plan activities, can recycle only CFCs while the other two units, purchased during the implementation of TPMP, can recycle CFCs and HCFCs. Currently no HCFCs are recycled in Kyrgyzstan due to the lack of incentives because the cost of virgin substance HCFC-22 is still very low.

Secretariat's recommendation

39. The Executive Committee may wish:

(a) To note the report on the 2010-2011 work programme associated with the third and final tranche of the terminal phase-out plan (TPMP) for Kyrgyzstan;

(b) To request UNEP to continue reporting progress on the implementation of the TPMP for Kyrgyzstan, while providing such further reports in a format and on a schedule consistent with the outcome of the discussion under agenda item 7(d); and

(c) To request the Government of Kyrgyzstan and UNEP, on completion of the TPMP, to submit a project completion report in accordance with the format noted at the 65th meeting.

**Philippines (the): National CFC phase-out plan (2009 and 2010 verification report and 2012 action plan) (UNEP)**

*Background*

40. The National CFC phase-out plan (NPP) for the Philippines was approved in principle at the 38th meeting of the Executive Committee in November 2002, with a total value of US $10,575,410 and agency support cost of US $896,788, to phase-out 2,017.6 ODP tonnes of CFCs. The first tranche of US $3,010,873 with agency support cost of US $259,979 was agreed at the same meeting. Subsequent tranches were approved at the 41st, 44th, 47th, 51st and 54th meetings to fund activities from 2003 to 2008.

41. At the 65th meeting, the Executive Committee approved the transfer of the remaining activities under the NPP from the World Bank to UNEP. Decision 65/10(e) included, *inter alia*, that the World Bank return the remaining balance of the NPP to the 66th meeting, and for the Government of the Philippines, with the assistance of UNEP, to submit a verification report on the CFC consumption for 2009 and 2010, and an implementation plan for 2012-2013 for the remaining funds under the NPP to the 66th Meeting.

*Verification report*

42. Verified CFC consumption based on actual import in 2009 was 208.64 and zero ODP tonnes for 2010, compared to the maximum allowable consumption of 300 and zero ODP tonnes for 2009 and 2010 respectively. Data reported under Article 7 of the Montreal Protocol shows that the country's CFC consumption for 2009 and 2010 was 208.64 ODP tonnes and 0 ODP tonnes respectively.

*Progress report*

43. There were no new activities undertaken or completed as compared to the information presented at the 65th meeting, where a cumulative report on progress up until September 2011 was submitted The sole additional item to the report concerned the visit of a consultant in October 2011 to finalise project preparation for the foam sector plan for the HCFC phase-out management plan (HPMP) .

44. By the end of 2011, the project had disbursed 82 per cent (US $8,671,836) of the US $10,575,410, approved for the NPP. The remaining balance (US $1,878,851) will be transferred to UNEP, as the new implementing agency, at the 66th meeting.

*Implementation plan for April 2012-December 2013*

45. UNEP, on behalf of the Government of the Philippines, submitted an implementation plan for the remaining balance of the project in order to sustain the phase-out of CFCs in the country and ensure that consumption remains at zero ODP tonne. Most of these activities are a continuation of those initiated in previous years and include:

(a) Continued monitoring of grant recipients and other enterprises listed in the NPP (foam and refrigeration enterprises) to ensure their compliance;

(b) Turn-over of equipment to the training centre for service technicians including continued support to the certification of technicians to include servicing of HCFC equipment;

(c) Continued technical assistance for mobile air conditioning (MAC) inspection for sustained implementation of the ban on motor vehicles with CFC-11 MAC by providing refrigerant identifiers to inspection posts;

(d) The development of a management information system linking the different institutions involved in the NPP implementation to monitor progress of activities;

(e) Completion of the voucher system and distribution of remaining tools and equipment for proper servicing of refrigerators and air-conditioners as well as finalisation of the technical audit of this system;

(f) Additional operations support to regional Environment Management Bureau (EMB) offices to ensure nationwide implementation of activities in the service sector;

(g) Strengthening regional inter-agency cooperation and coordination by providing information linkages;

(h) Providing remaining tools to the reclamation facility and implementation of the waste ODS reclamation scheme;

(i) Continued awareness raising; and

(j) Continued operation of the project management unit (PMU) to coordinate the above activities.

46. The Government of the Philippines requested in its submission, the authority to continue completion of all projects under the NPP until December 2013 and to fully commit the remaining funds for the project up to this period.

47. The budget for the 2012-2013 implementation plan is summarized in Table 2 below (the detailed budget is attached as Annex I) and includes the amount requested for retroactive funding of US $43,080 for expenses incurred from July-December 2011:

**Table 2: Summary of proposed work plan and budget**

| April 2012-December 2013 | Budget (US $) |
|---|---|
| Project Management | 604,172 |
| Prevention of additional supply of ODSs/HCFCs | 259,525 |
| Elimination of CFC demand in the country | 510,823 |
| Management of unwanted ODS | 198,593 |
| IEC and Public Awareness | 305,738 |
| **Total** | **1,878,851** |

Secretariat's comments

48. The Secretariat reviewed the work plan submitted by the Government of the Philippines through UNEP in line with the previous work plans for the NPP, and the remaining actions required for sustaining CFC phase-out in the country. Based on its Article 7 data for 2010 and its submitted verification report, the Philippines has met the CFC compliance targets of the Montreal Protocol. Considering a balance of almost 20 percent of the funds for the NPP remains (see paragraph 44 above) and since there are no ODS phase-out targets linked to the work plan, progress should be monitored on an activity basis, with those activities specifically identified and agreed to by the Executive Committee.

49. The Secretariat noted that most activities listed were uncompleted activities from the previous work plans of the NPP from 2007 to 2009 and that not all initiatives took into consideration HCFC phase-out activities especially those in the servicing sector (e.g. training and work with service technicians). The Secretariat likewise drew UNEP's attention to the fact that while there may be a need to implement activities to sustain zero consumption of CFCs, the Executive Committee had made it very clear that remaining funds for CFC phase-out should consider activities that will facilitate the phase-out of HCFCs. The Secretariat also expressed concerned that a large number of activities referring to CFC phase-out in the currently proposed work plan for 2012 and 2013 were not clearly justified.

50. In its response, UNEP advised the Secretariat that the Philippines had faced some delays in implementing some activities that had been planned in the past due to disbursement difficulties, and to the termination of the earlier grant agreement with the World Bank, where activities were still outstanding. The transition to a new implementing agency also necessitated adjustments in financial and implementation arrangements which further contributed to the situation. UNEP also indicated that the current work plan took into account the financial commitments that the Philippines had made with its partners in the CFC phase-out, which need to be completed as these will be the same partners for HCFC phase-out.

51. The Secretariat proposed, in the light of the justification provided, that the current work plan could cover the immediate commitments for the next 12 months only but at a lower amount than proposed in Table 2 above, including the retroactive funding requested. It also drew UNEP's attention to the fact that the overarching HPMP strategy for the Philippines is still outstanding and advised that the Government of the Philippines should expedite its completion taking into account the remaining funds of the NPP to and seriously consider how these can be integrated into the HPMP especially for the servicing sector. The remaining balance may be considered for disbursement upon approval by the Executive Committee of a future annual work plan for implementation. The Government of the Philippines and UNEP submitted a revised budget for the next 12 months as presented in Table 3 below:

**Table 3: Agreed work plan and budget for April 2012-April 2013**

| April 2012-April 2013 | Budget (US $) |
|---|---|
| Prevention of additional supply of ODS/including HCFC | 65,000 |
| Continued work in the servicing sector (prevention of additional CFC demand, including HCFC) | 170,000 |
| Management of unwanted ODS | 30,000 |
| Awareness and information dissemination | 20,000 |
| PMU | 143,550 |
| ***Sub-total*** | ***428,550*** |
| Retroactive funding (July 2011-December 2011) | 43,080 |
| **Total** | **471,630** |

Secretariat's recommendation

52. The Executive Committee may wish to consider:

(a) Noting:

(i) The verification report of 2009 and 2010 CFC consumption in the Philippines and the country's compliance with its phase-out obligations for CFC consumption;

(ii) That the Philippines has reported zero consumption of CFCs under Article 7 of the Montreal Protocol for 2010;

(iii) The annual implementation plan under the national CFC phase-out plan for April 2012 to April 2013 submitted by UNEP on behalf of the Government of the Philippines and approving the activities contained therein for the disbursement of no more than US $471,630 for this period and requesting UNEP to provide an annual report to the Executive Committee on progress made at the 70th meeting in a format consistent with the outcome of the discussion under agenda item 7(d); and

(b) Requesting the Government of the Philippines through UNEP to submit a subsequent annual work plan for the remaining balance of US $1,407,221 no later than the 68th meeting of the Executive Committee, taking into account that remaining funds should consider activities that will facilitate the phase-out of HCFCs within the context of the country's HCFC phase-out management plan.

**Sao Tome and Principe: Verification report on the implementation of the terminal phase-out management plan (2007-2009) (UNEP)**

*Background*

53. On behalf of the Government of Sao Tome and Principe UNEP, as the lead agency, has submitted a verification of the CFC consumption Sao Tome and Principe for the period 2007 to 2009 in accordance with decision 45/54(d). The TPMP for Sao Tome and Principe was approved by the Executive Committee at its 54th meeting, to completely phase out CFC consumption by 2009. Total funding of US $190,000 plus agency support costs of US $9,750 for UNEP and US $10,350 for UNIDO was approved in principle by the Executive Committee and released to agencies in two tranches at the 54th and 57th meetings of the Executive Committee.

*Verification report*

54. The verification demonstrated that Sao Tome and Principe has an effective licensing system and a strong National Ozone Unit. The overall targets for the ODS consumption at the national level for 2008 and 2009 have been achieved. Actual ODS consumption in 2008 was 0.2 ODP tonnes (compared to 0.7 ODP tonnes maximum allowable consumption under the agreement) and zero in 2009 (compared to 0.7 ODP tonnes maximum allowable consumption under the agreement).

Secretariat's comments

55. The Government of Sao Tome and Principe has reported 0.2 ODP tonnes of CFC consumption under Article 7 of the Montreal Protocol in 2008 and zero consumption for 2009 and 2010. The licensing and quota system in Sao Tome and Principe applies to both Annex A and Annex C substances. The annual quotas for these substances are issued jointly by the Ministries of the Environment and of Trade.

Secretariat's Recommendation

56. The Executive Committee may wish:

(a) To take note of the report on the verification of the CFC consumption Sao Tome and Principe for the period 2007 to 2009 and the country's compliance with its phase-out obligations for CFC consumption; and

(b) To further note that Sao Tome has reported zero consumption of CFCs under Article 7 of the Montreal Protocol for 2009 and 2010.

## II. SECTOR PHASE-OUT PLANS

57. UNDP and the World Bank have submitted the following reports:

(a) China: ODS phase-out in China solvent sector (2010 progress report, 2009 and 2010 performance verification, and 2010 technical verification of TCA) (UNDP)

(b) India: Report on the implementation of the CTC phase-out plan for the consumption and production sectors during 2010 (World Bank)

**China: ODS phase-out in China solvent sector (2010 progress report, 2009 and 2010 performance verification, and 2010 technical verification of TCA) (UNDP)**

58. On behalf of the Government of China, UNDP as the implementing agency has submitted the 2009 and 2010 annual progress reports for the solvent sector plan for ODS phase-out in China as well as the verification of the consumption in controlled TCA uses for 2009 and 2010, and a technical verification of phase-out at a sample of three beneficiary enterprises, for consideration by the Executive Committee at its 66th meeting.

*Background*

59. The solvent sector plan for China was approved at the 30th meeting of the Executive Committee at a total cost of US $52 million plus support cost for UNDP. The funds have been approved in eleven annual tranches for the implementation years 2000 to 2010, with the final tranche approved at the 59th meeting.

60. The phase-out was achieved through a combination of investment activities targeting specific enterprises and a technical assistance programme for smaller enterprises managed through a voucher system. Consumption limits are maintained through regulation of production and imports. The reduction in production is controlled under China's production sector phase-out plans for CFCs and CTC. The use of CTC as a solvent has been prohibited since 1 June 2003, and CFC-113 as a solvent since 1 January 2006; accordingly, related activities had been completed in past years. The use of methyl chloroform (TCA) as the last ODS solvent to be covered under this plan in China was to be completely phased out by 1 January 2010.

Phase-out from investment projects and activities

*Enterprise-level activities*

61. Under the solvent sector plan, the reductions recorded in 2010 were achieved by the completion of phase-out activities at enterprises under the ODS reduction contract project initiated in 2008 and 2009 to phase out TCA used as a solvent. The year 2009 saw implementation of activities with a total reduction of 73.7 ODP tonnes of TCA, and the year 2010 of a further 3.7 ODP tonnes. In total, the solvent sector plan phase out of 247.07 ODP tonnes of TCA consumption was achieved over 11 years. In previous years, activities to replace CFC-113 had resulted in an aggregated reduction of 2,689.5 ODP tonnes, and activities related to CTC of 29.5 ODP tonnes. The phase-out has been achieved through 379 separate contracts. The reductions in consumption in the years 2009 and 2010, as well as the planned phase-out under the sector plan compared to the reductions achieved is shown in table 4 below:

**Table 4: Reductions in consumption (2009 and 2010) and phase-out planned under the solvent sector plan for China**

| **Substance in ODP tonnes** | | **CFC-113** | **TCA** | **CTC** | **Total** |
|---|---|---|---|---|---|
| **2009** | | 0 | 73.7 | 0 | 73.7 |
| **2010** | | 0 | 3.7 | 0 | 3.7 |
| **Aggregated 2000-2010** | Plan | 3,300 | 537 | 110 | 3,947 |
| | Aggregated reductions in enterprises | 2,689.5 | 247.1 | 29.5 | 2,966.1 |
| | Share (Aggregated reductions in enterprises/Plan) | 81.5% | 46.0% | 26.8% | 75.1% |
| | Actual reduction of consumption | 3,300 | 537 | 110 | 3,947 |

62. The report points to reasons why the actual reduction in consumption, i.e. the phase-out on a national level differs from the aggregated reductions by enterprises, which were addressed in the phase-out plan. One reason is that a number of enterprises appear to have eliminated TCA consumption through their own activities, without project funding. Secondly, there is a large number of enterprises that are ineligible for funding, i.e. with foreign ownership that are consuming ODS solvents, but are not eligible to receive funding under this plan.

*Technical assistance activities*

63. Under the sector plan a number of technical assistance activities were continued, which had started in previous years. This included activities related to combating illegal ODS imports, production and use, including the finalisation of a new draft "regulation of ODS import and export management" in 2010, conducting of training workshops for local government offices and investigation of illegal consumption; two concrete investigations were looking into use of CTC and CFC-113. The capacity building for local environmental protection bureaux to enable and strengthen monitoring of compliance with the Montreal Protocol was also continued. Of the 18 provinces and cities targeted by activities under the solvent sector plan, reports from 12 cities were received in 2009. Under the capacity building activity to combat illegal ODS trade, training material and information material for customs had been printed. Finally, an elaborated technical verification has been carried out and submitted to this meeting.

64. A number of public awareness and training activities have also been conducted under the solvent sector plan. This includes activities related to the solvent sector on the Ozone Day, policy training for local authorities in China, the capacity building for training and communication to local administrations to comply with the Montreal Protocol, and the related support for network equipment and conference facilities. Finally, a number of policies and regulations have been formulated, among them, a nation-wide ban on the production of TCA by 1 January 2010 (thus eliminating consumption), and use of TCA for enterprises on 1 January 2011.

65. The verification of activities demonstrated that the related activities had been carried out. The verification of consumption confirmed that the use of CTC, TCA and CFC-113 in the solvent sector had been zero in 2009 and 2010. The remaining funding has been completely exhausted during the year 2010 from a starting level of US $6,824,620 at the end of 2009, leaving no balances in the project account.

Secretariat's comments

66. The 59th meeting, had in November 2009, approved a number of activities to be undertaken with the then-remaining funds of more than US $7 million. In 2010 UNDP, on behalf of the Government of China, implemented those activities, and committed the remaining project funds.

67. The submission of UNDP on behalf of China provided an excellent and very detailed overview of the activities under this plan, and results achieved both for the years 2009 and 2010 as well as from the beginning of the plan. The verifications submitted for 2009 and 2010 are sufficient to provide full confidence in the correctness of the information provided. The implementation of the solvent sector plan is complete.

Secretariat's recommendation

68. The Executive Committee may wish to:

(a) Take note of the 2009/2010 progress report for the solvent sector plan for ODS phase-out in China; and

(b) Take note of the associated TCA verification reports for 2009 and 2010.

**India: Report on the implementation of the CTC phase-out plan for the consumption and production sectors during 2010 (World Bank)**

69. The World Bank as the lead implementing agency had submitted to the 65th meeting, on behalf of the Government of India, the verification of the achievements of the 2010 annual programme. In the context of this submission, the Executive Committee had noted in its decision 65/10(j) that, in the verification, use of CTC for vinyl chloride monomer (VCM) production had been classified as feedstock from the beginning of 2005, while in 2007 the use of CTC in the production of VCM had already been classified as a process agent application by the 19th Meeting of the Parties to the Montreal Protocol (decision XIX/15). The Executive Committee had also requested the World Bank in sub-paragraph (iii) of the decision to ask the Government of India to update accordingly the CTC consumption data for 2008 to 2010 reported to the Ozone Secretariat under Article 7 of the Montreal Protocol. Sub-paragraph (iv) of the same decision asked the World Bank to coordinate with the Government of India to investigate to what degree the quantities of CTC destroyed in 2008, 2009 and 2010 would offset the quantities of CTC used as process agent for the production of VCM in 2008, 2009 and 2010, and to provide a related report to be submitted no later than eight weeks before the 66th meeting.

70. Subsequent to the 65th meeting, the 23rd Meeting of the Parties discussed the issue of CTC for process agent uses in general, and VCM in particular. Paragraph (8) of decision XXIII/7 "Use of controlled substances as process agents", states that the Parties "consider the use of carbon tetrachloride for the production of vinyl chloride monomer for the purpose of calculated levels of production and consumption, on an exceptional basis, to be a feedstock use until 31 December 2012". The aforementioned decision renders the sub-paragraphs (iii) and (iv) of decision 65/10 (j) of the Executive Committee obsolete.

71. Decision 65/10(j)(v), requested the World Bank to provide a report on the implementation of the CTC phase-out plan for the consumption and production sectors during the year 2010 in time for the 66th meeting and, if applicable, a revision of the planned activities. The report submitted by the World Bank stated that the technical verification audits for CTC production and consumption for 2010 were undertaken in March 2011. The Bank hired an independent audit team to undertake site visits and review documentation at four CTC producers, eight dichloro vinyl acid chloride (DVAC) producers, one VCM and one di-fluro benzophenone (DBBP) plant, and at the three storage installations at Kandla Port. For 2010, no quota for sales to non-feedstock users was issued by the Ozone Cell. The audit team confirmed that there were no direct sales to non-feedstock users and no CTC was imported or exported by the CTC producers. The independent audit team therefore verified that in its opinion India was in compliance with its obligations under the Montreal Protocol. The last and final disbursement of funds from the CTC phase out plan (US $ 2.1 million) to the four CTC producers was made in December 2010. In 2011, the National Ozone Cell undertook a number of workshops and training activities under the Technical Assistance component.

72. The World Bank informed the Secretariat that the remaining funds amount to US $1.4 million and were proposed to cover: training of industry clusters and associations using CTC to work with alternative solvents (US $400,000); development and implementation of a communication strategy to avoid using CTC and prevent users backsliding (US $290,000); training State Governments' and pollution control board officers (US $196,000); training workshops for customs officials (US $196,000); producing a success story publication (US $38,000); and on-going PMU activities, including monitoring (US $280,000). The Secretariat pointed to the fact that CTC in controlled uses has been phased out for more than a year. It raised serious concerns about possible double funding as compared to previous activities under the sector plan as well as with customs training requested originally under the HPMP for India submitted to the 66th meeting. The Secretariat also raised issues related to the amount of funding foreseen for the different activities and made a number of suggestions, including adding activities for monitoring whether CTC for non-controlled uses is diverted into controlled uses, and transferring funds to other activities such as the HPMP.

73. The World Bank, on behalf of the Government of India, decided to withdraw the submission since the different possibilities for allocating the funding would require more time for consideration. Nevertheless, the Secretariat believed it was necessary to submit this to the Executive Committee in view of decision XXIII/7 of the Meeting of the Parties and decision 65/10(j)(v) requesting a report to the 66th meeting.

74. The Executive Committee may wish to consider:

(a) Noting that paragraph 8 of decision XXIII/7 of the 23rd Meeting of the Parties which considers the use of carbon tetrachloride for the production of vinyl chloride monomer for the purpose of calculated levels of production and consumption, on an exceptional basis, to be a feedstock use until 31 December 2012, supersedes sub-paragraphs (iii) and (iv) of decision 65/10(j) of the Executive Committee;

(b) Requesting the World Bank to provide, to the 69th meeting, a report on the status of the use of carbon tetrachloride for the production of vinyl chloride monomer in India;

(c) Taking note of the report on implementation of the CTC phase-out plan for the consumption and production sectors for India in 2010, and the related verification provided; and

(d) Requesting the World Bank to provide to the 67th meeting a work plan covering the funds remaining in the CTC phase out plan in India.

## III. INSTITUTIONAL STRENGTHENING

### Progress report on the implementation of decision 64/20 on the institutional strengthening project for the Democratic People's Republic of Korea (UNEP)

*Background*

75. At its 64th meeting the Executive Committee decided to defer consideration of the request for phase VI of the institutional strengthening (IS) project for the Democratic People's Republic of Korea to its 66th meeting and requested the Secretariat, and UNEP as implementing agency, to propose alternative methods of disbursement, organizational structures and monitoring procedures to the Executive Committee by its 66th meeting (decision 64/20). UNEP has submitted a report on the implementation of decision 64/20 (Attachment I).

*Proposal for alternative methods of disbursement, organizational structures and monitoring procedures*

76. The report describes the current modality of disbursement of funds for the IS project and the consultation process that took place between UNEP, the National Coordination Committee for Environment (NCCE) / National Ozone Unit (NOU) of the Democratic People's Republic of Korea, and UNDP (Pyongyang) from 28 November to 1 December 2011. Discussions between UNEP Regional Office for Asia and the Pacific (ROAP) and the UN Economic and Social Commission for Asia and the Pacific (ESCAP) also took place.

77. Based on the outcome of these discussions a proposal is set out in the attached report (Attachment I), which can be summarized as follows:

Disbursement

- UNEP and NCCE sign a financial agreement (SSFA) to clearly define all IS activities and the respective costs.
- Based on a detailed annual work plan UNEP makes advance payments in Korean Won to the NOU through the UNDP Pyongyang office.
- At least one month in advance of a proposed activity, the NOU would submit a detailed terms of reference (TOR) for UNEP's endorsement allowing advanced funds to be used for that activity.
- Two weeks following the completion of the activity the NOU would submit a detailed report of the activity undertaken against the endorsed TOR including expenditure reports and original receipts for review and monitoring by UNEP.
- Any activities organized without UNEP's pre-endorsement, would not be covered from the advance payment of IS funds.

Organizational structures and monitoring procedures

- NOU staff would continue to be recruited by the Government and located in the Ministry of Environment and Land Protection.

Monitoring Procedures

- Semi-annual progress report as required by UNEP procedures for all countries.
- Pre-endorsed TOR for activities.
- Activity report within two weeks of completion.
- Where possible UNEP staff participation in IS activities.
- UNEP Compliance Assistance Programme would try to organize twice-yearly visits to conduct review and supervision (NCCE agreed to unhindered access to project sites).

Secretariat's recommendation

78. The Executive Committee may wish:

(a) To note the report, submitted by UNEP, on the implementation of the Executive Committee's decision 64/20 on the institutional strengthening project for the Democratic People's Republic of Korea; and

(b) To consider whether the proposed alternative methods of disbursement, organizational structures and monitoring procedures respond to the concerns expressed by the Executive Committee at its 64th meeting.

## IV. RESOURCE MOBILIZATION FOR CLIMATE CO-BENEFITS

79. At its 63rd meeting the Executive Committee approved funding of US $680,000 for four individual global resource mobilization projects to be implemented by UNDP (US $200,000), UNEP (US $100,000), UNIDO (US $200,000) and the World Bank (US $180,000). These projects aim to mobilize resources to achieve climate benefits beyond those that could be achieved through HCFC phase-out alone. The projects were approved on the condition that an interim report would be submitted to the 66th meeting that would include a number of specified elements: additionality of the projects proposed; transparency and good governance, as well as covering the cash flow; assurance that these projects would avoid perverse incentives for countries; exploring possibilities of profit-sharing, including return of funds

to the Multilateral Fund; ensuring sustainability of the projects proposed; avoidance of duplication of similar projects; information on transaction costs. Agencies were requested to provide a final report on the projects to the 69th meeting. The funds approved were taken from the budget reserved for unspecified projects that had been set aside from the funds returned from the Thai chiller project.

**Global: Resource mobilization for climate co-benefits (UNDP)**

80. UNDP was tasked with the preparation of four pilot demonstration projects in the refrigeration and air-conditioning manufacturing sector to examine technical intervention to improve energy efficiency, national policy and regulatory measures to sustain such intervention in order to maximize the climate impact of HCFC phase-out, to be funded as resource mobilization activities. It was requested to inform the Executive Committee of the four proposals specified above no later than the 67th meeting, noting that this would be submitted for information only and that these proposals would not be funded under the Multilateral Fund.

*Progress*

81. UNDP has sought to mobilize resources from bilateral and multilateral sources as well as the private sector that would apply at the enterprise, sub-sector and sector level. US $ 1.7 million has been transferred to UNDP from the United States of America for demonstration and application of low-GWP and energy-efficient technologies in selected sub-sectors in countries in the Asia-Pacific region. UNDP has provided technical backstopping the preparation of a GEF project proposal for Indonesia focusing on financing of energy-efficiency improvements in the air conditioning and refrigeration sectors. The proposal for US $4.5 million is being finalized for submission and will provide opportunities for replication in other countries. UNDP is continuing efforts with other bilateral donors to mobilize financing for energy-efficiency improvements and low-global-warming potential (low-GWP) alternatives. The agency has also engaged with private sector technology providers (foam, air-conditioning and refrigeration sectors) to bring about additional investments in low-GWP and energy-efficient alternatives through subsidiaries in Article 5 countries.

Secretariat's recommendation

82. The Executive Committee may wish to note the interim report on the resource mobilization for climate co-benefits submitted by UNDP and to re-iterate decision 63/20(a)(i) by which UNDP was requested to inform the Executive Committee of the four proposals specified above no later than the 67th meeting, noting that this would be submitted for information only and that these proposals would not be funded under the Multilateral Fund.

**Global: Resource mobilization to address climate co-benefits for HCFC phase-out in LVC countries with servicing sector only, in cooperation with other agencies (UNEP)**

83. The Executive Committee approved funding for a study on financing options, regional workshops on co-financing, and/or one or more pilot applications of co-financing for one or more low volume consuming (LVC) countries with an approved HCFC phase-out management plan (HPMP). UNEP was requested to ensure that the regional workshops were held in the context of the network meetings under UNEP's Compliance Assistance Programme so as to ensure cost effectiveness, and that the timing of the workshops would be such to allow the experiences of other agencies' resource mobilization activities to be incorporated.

*Progress*

84. The terms of reference for the study on financing options have been drafted and a roster of potential expert consultants to undertake the study has been compiled. An initial roster of potential

invitees/partners for the regional workshop has been developed and the CAP teams are planning the regional workshops in the context of the network and thematic meetings planned for 2012. Co-financing aspects will be addressed during the thematic workshop for French speaking North and Western Africa that will take place in Burkina Faso in April 2012 and UNEP is considering whether a resource mobilisation project for low-volume consuming countries (LVC) would apply to that workshop.

Secretariat`s recommendation

85. The Executive Committee may wish to note the interim report on the project for resource mobilization to address climate co-benefits for HCFC phase-out in LVC countries with servicing sector only, in cooperation with other agencies, submitted by UNEP.

**Global: Resource mobilization for HCFC phase-out and climate co-benefits (UNIDO)**

86. The Executive Committee approved funding for the preparation of two project proposals for possible co financing for HCFC activities on the condition that UNIDO inform the Executive Committee of the two proposals specified above no later than the 67th meeting, noting that this would be submitted for information only and that the two proposals would not be funded under the Multilateral Fund.

*Progress*

87. UNIDO has identified potential countries in Africa, Latin America, and Asia and the Pacific for two pilot conversions in the fishing and food processing sectors. The implementation of the projects developed will be in four stages: adopting and adapting existing available approaches to support non-eligible costs related to HCFC phase-out; identifying and implementing the most promising alternative technology to replace the existing installation and implementing pilot conversion(s); monitoring the performance of converted technology and evaluating energy savings; and designing the most promising financial scheme for leveraging additional funds for the conversion of similar installations.

Secretariat`s recommendation

88. The Executive Committee may wish to note the interim report on the project for resource mobilization for HCFC phase-out and climate co-benefits submitted by UNIDO and to re-iterate decision 63/23(a)(i) by which UNIDO was requested to inform the Executive Committee of the two proposals specified above no later than the 67th meeting, noting that this would be submitted for information only and that the two proposals would not be funded under the Multilateral Fund.

**Global: Resource mobilization for HCFC phase-out co-benefits study (World Bank)**

89. The Executive Committee approved funding for a study that would focus solely on monetizing carbon credits.

*Progress*

90. The World Bank prepared a revised concept note to focus the project on using market mechanisms at the project level taking into account the developments related to carbon finance at the United Nations Climate Change Conference in Durban in 2011. The study will be undertaken by a consulting firm with supervision from the World Bank and will be completed by 31 December 2012 with a view to submitting the final report to the 69th meeting in accordance with decision 63/24.

Secretariat`s recommendation

91. The Executive Committee may wish to note the interim report on the resource mobilization for HCFC phase-out co-benefits study submitted by the World Bank.

## V. ODS DESTRUCTION PROJECTS

92. Decisions 58/19(a)(iii) and 64/50 requested bilateral and implementing agencies to report annually to the first meeting of the Executive Committee on progress and experiences gained in demonstration projects on ODS disposal, commencing in the first year after project approval, and to include in those reports information on: the amounts of the different ODS collected or identified, transported, stored and destroyed, as well as on financial, managerial and co-funding arrangements, and any other relevant issues. Reports on ongoing ODS destruction projects in Cuba and Ghana were submitted to the 66th meeting in accordance with those decisions.

### Cuba: Status report on the pilot demonstration project on ODS waste management and disposal (UNDP)

*Background*

93. The pilot demonstration project on ODS waste management and disposal in Cuba was approved at the 62nd meeting at the amount of US $525,200 to destroy a total of 45.3 metric tonnes of ODS waste, on the understanding that no additional funding would be provided for Cuba for any ODS disposal projects in future (decision 62/27). The pilot project seeks to develop an efficient and cost-effective logistic framework for the transport, storage and destruction of ODS in Cuba.

*Progress*

94. The UNDP-Cuba project document was signed in June 2011 and a project team was established with full participation of all stakeholders. Progress made includes: technical specifications and identification of equipment needed to adapt the chosen facility for ODS destruction (construction and assembly of the facility will start in 2012); identification of operational requirements and equipment for the provincial storage facilities; the design of a specialized truck for ODS collection and transport; and revision of the legal framework to ensure ODS destruction is regulated.

95. Actual collection and destruction tasks have not yet been initiated however trials will commence once the initial set-up is completed.

Secretariat's comments

96. As of December 2011, no funds had been disbursed since the initial activities involving adjustments to construction of the facility are co-financed by the Cuban Government.

97. Currently, 130 mt of ODS stock is stored in a regional storage depot. UNDP indicated that all stocks are ODS waste and cannot be recycled or reclaimed.

Secretariat's recommendation

98. The Executive Committee may wish:

(a) To note the status report on the pilot demonstration project on ODS waste management and disposal for Cuba submitted by UNDP; and

(b) To request UNDP to submit a report to the 69th meeting of the Executive Committee on progress and experiences gained in the pilot demonstration project for Cuba in accordance with decisions 58/19(a)(iii) and 64/50.

**Ghana: Status report on the pilot demonstration project on ODS waste management and disposal (UNDP)**

*Background*

99. The pilot demonstration project on ODS waste management and disposal in Ghana was approved at the 63rd meeting at the amount of US $198,000 to destroy a total of 8.8 metric tonnes of ODS waste. The project is closely integrated with the country's HPMP and the Global Environment Fund (GEF) Energy Efficiency (GEF-EE) project in which End-of-Life (EOL) and early retired energy inefficient refrigerators will be collected and dismantled in regional depots for ODS recovery. Confirmation of funding (US $1,722,727) for the GEF-EE project was received on 9 May 2011 which allowed funds for the pilot project to be disbursed (decision 63/27).

*Progress*

100. An international consultant hired under the project attended the inception workshop for the GEF-EE project that took place in Accra from 15 to 16 November 2011. The workshop was attended by key public and private stakeholders and provided the consultant with an opportunity to discuss issues related to: decentralized regional dismantling and recovery centres; keeping records on retired refrigerators; safe processes for dismantling retired refrigerators, ODS recovery, storage, and transport; testing the composition of ODS; export processes; record keeping and chain of custody; training of technicians. The importance of close coordination between the disposal project, the HPMP and the GEF-EE was deemed essential to ensure a steady flow of ODS for collection and disposal.

101. The UNDP Montreal Protocol Unit (MPU) plans to visit Accra in April 2012 to discuss logistics for the ODS Disposal Centre and other project activities.

Secretariat's comments

102. Of US $198,000 approved by the project US $ 21,000 have been were disbursed for national and international consultancy contracts. UNDP informed the Secretariat that no information on of the types of ODS to be processed was available as it is too early in the project; however, the major part of ODS stored at the Ghana Environmental Protection Agency and the stream of ODS anticipated from the GEF-EE project are CFCs, which were identified as available waste for destruction when the project was approved.

103. UNDP advised the Secretariat that the project had started a little slowly since it was important for the visit to Ghana by the international consultant in 2011 to coincide with the inception workshop for the GEF-EE project in order to ensure modalities for synergies between the two projects were in place. This had been delayed due to late signature of the GEF-EE project document.

Secretariat's recommendation

104. The Executive Committee may wish:

(a) To note the status report on the pilot demonstration project on ODS waste management and disposal for Ghana submitted by UNDP; and

(b) To request UNDP to submit a report to the 69th meeting of the Executive Committee on progress and experiences gained in the pilot demonstration project for Ghana in accordance with decisions 58/19(a)(iii) and 64/50.

## VI. HCFC DEMONSTRATION AND INVESTMENT PROJECTS

105. UNDP submitted two detailed progress reports on the following HCFC projects:

(a) Global: Report on the assessment of methylal as blowing agent in the manufacture of polyurethane foam systems (UNDP)

(b) Global: Report on the assessment of low costs options for the use of hydrocarbons in the manufacture of polyurethane foams (UNDP)

### Global: Methylal as blowing agent in the manufacture of polyurethane systems. An assessment for the application in MLF projects

*Background*

106. UNDP has submitted to the 66th meeting a technical report on methylal as blowing agent in the manufacture of polyurethane foam systems: An assessment for the application in MLF projects. The complete technical report is attached (Attachment II) to this document.

107. At its 58th Meeting, the Executive Committee approved a pilot project for validation of methylal as a blowing agent in the manufacture of polyurethane foam, on the understanding that the laboratory equipment required for the validation of the technology would be donated to a not-for-profit research facility once phases I and II of the demonstration project had been completed (decision 58/30).

*Executive summary*

108. UNDP formulated a number of pilot projects to investigate the safe use of methylal to replace HCFC-141b in polyurethane (PU) foams application. The use of methylal based systems has been evaluated at Arinos Quimca, Ltd. (Brazil), with the objective of assessing its performance compared with HCFC-141b based systems in order to establish whether the technology is feasible for use in Multilateral Fund projects.

109. To ensure that methylal technology would be available world-wide, UNDP assessed the supply scenario. Methylal is available from manufacturers in Belgium, China, India, the Republic of Korea and the United Kingdom of Great Britain and Northern Ireland. While methylal has been patented for a several PU applications, none of the patents have resulted in attempts to license its use. On this basis it is believed that none of these patents can claim effective and comprehensive intellectual rights on the use of methylal in PU foams. Therefore it can be concluded that methylal is commonly available and free to use in foam applications.

110. The assessment of methylal in PU applications addressed the following: health, safety and environmental considerations; issues concerning its processability (e.g., stability, compatibility shipping and storage); system composition; an overview of the physical properties obtained from trials for different applications; and an indicative costs of conversion for introduction of the technology in systems houses and foam enterprises.

111. Sixteen PU foam applications using HCFC-141b as a blowing agent were evaluated for their potential to convert to using methylal. For the evaluation the following activities were implemented:

acquisition of the necessary testing/prototyping equipment; optimization and validation of all 16 formulations on prototype equipment; development of safe practices to comply with national and international standards for the transportation, storage and use of methylal in systems houses and of methylal-containing systems at small and medium sized enterprises (SMEs); and dissemination of the experience gained through a workshop. A consolidated overview of the assessment is summarized in the table 5 below.

**Table 5: Assessment of foam applications for conversion to methylal**

| Application | Health, safety, environment | Processability | Physical properties | Assessment |
|---|---|---|---|---|
| **Non-insulation foam** | | | | |
| Flexible | + | + | + | + |
| Shoe soles | + | + | + | + |
| Structural (rigid) | + | + | + | + |
| Semi-flexible | + | + | + | + |
| Flexible moulded | + | + | + | + |
| Hyper-soft block | + | + | + | + |
| Viscoelastic molded | + | + | + | + |
| Viscoelastic block | + | + | + | + |
| Packaging foam | + | + | + | + |
| **Insulation foams** | | | | |
| Refrigeration | + | + | + | +/- |
| Water heaters | + | + | + | +/- |
| Trucks | + | + | + | +/- |
| Blocks, Panels | + | + | + | +/- |
| Spray | + | + | + | +/- |
| Thermoware | + | + | + | +/- |
| Polyisocyanurate foam (PIR) | + | + | + | +/- |

+ Good, - Poor; +/- Fair (acceptable with conditions)

112. Based on the assessment, the use of methylal as an alternative blowing agent to replace HCFC-141b in PU foam applications may be feasible. The results indicated that methylal is better suited for non-insulation foam than for insulation foam. Taking into consideration that the comparison is being made between optimized HCFC-141b-based systems and recently developed methylal-based systems, the results for rigid (insulation) foam applications resulted in a penalty in insulation value of up to 10 per cent. Therefore, the use and further optimization of methylal systems in those applications should be individually evaluated by enterprises. Additionally, the adoption of methylal technology would have to be subject to the following conditions: conversion of enterprises should preferably be done through local systems houses; during the project preparation chemical compatibility has to be verified, and implications related to the substance flammability have to be taken into consideration.

113. UNDP has developed general cost templates to calculate the incremental cost of conversion from HCFC-141b to methylal-based foams. Capital costs (shown in the table 6 below) and chemical cost can differ significantly from country to country and are also subject to economy of scale considerations.

**Table 6: Capital costs related to conversion from HCFC-141b to methylal-based foams**

| Description | Indicative cost (US $) | Comment |
|---|---|---|
| **Systems houses** | | |
| Explosion proofing of blending tanks | AA x 30,000 | As for methyl formate |
| Nitrogen dispenser | BB x 8,000 | |
| Methylal vapour monitors | 2 x 2,500 | To monitor industrial hygiene (IH) compliance |
| Spray/pipe-in-pipe (PIP) safety package | CC x 7,500 | Exhaust, grounding |
| Low/high pressure dispenser safety package | DD x 15,000 | Exhaust, grounding |
| Pycnometer (closed cell tester) | 10,000 | |
| Portable K-factor tester | 10,000 | |
| Refractometer ( test chemical purity) | 10,000 | |
| Small dispenser for rental | EE x 15,000 | |
| Project management | FF clients @ 1,000 | |
| Monitoring and technology transfer | 30,000 | |
| Contingencies | 10% of capital costs | |
| **Customer (foam enterprises)** | | |
| Methylal vapour monitor | FF x 2,500 | To monitor IH compliance* |
| Spray/PIP retrofit packages | GG x 7,500 | Exhaust, grounding |
| Low/high pressure dispenser retrofit package | HH x 15,000 | Exhaust, grounding |
| New dispensers | II x 25,000 | Include safety packages |
| Trials, testing, training, | KK machines @ 3,000 | As in approved projects |
| Contingencies | 10% of capital costs | |

*Conclusion by the technical reviewer*

114. The technical reviewer concluded that "the use of methylal as a replacement for HCFC-141b systems in polyurethane foam manufacturing in Article 5 countries appears to be a feasible solution that meets the objectives of a cost-effective, zero-ODP, low-GWP replacement technology. Final foam properties are comparable to HCFC-141b based foams". The technical reviewer further recommended that the report should *inter alia:* define the parameters of the test results to provide guidance about whether the actual operating conditions are predictive of the foam density results; provide an estimate of the incremental operating costs based on the results obtained; continue with the long-term stability studies of foam properties, particularly dimensional stability; include monitoring equipment as an integral component of each project to assure operational and personnel safety.

Secretariat's comments

115. The pilot project for the evaluation/assessment of methylal included a workshop to disseminate the results of the project, which was held in Brazil in December 2011. Over one hundred participants attended and included representatives from:12 systems houses in Brazil (eight locally-owned, namely Amino, Arinos, Ariston, M.Cassab, Polisystem, Polyurethane, Purcom and Utech, and four foreign owned, namely Bayer, BASF, Dow and Huntsman); 13 foam manufacturing enterprises from Brazil Jamaica and Trinidad and Tobago; five Article 5 countries (i.e., Colombia, Panamá, Paraguay, Peru and Jamaica); UNDP, UNEP and Germany; three Brazilian industry associations; eight blowing agent manufacturers/distributors from Brazil, Belgium and the United States of America; six foam injection equipment manufacturers; and four members of the Foam Technical Options Committee (FTOC).

116. Upon a request for clarification of the equipment retrofits and/or new equipment that would be required when introducing methylal technology, UNDP explained that methylal can generally be implemented without changing the equipment in the baseline. The actual costs are mainly related to electrical grounding of the foam dispenser, installation of a methylal sensor (or alternatively, regular

industrial hygiene surveys by the systems suppliers), and emission exhaust. New equipment is only needed in cases where the user conducts manual foaming.

117. Responding to a question on whether or not there are patents and/or intellectual rights covering the use of methylal as a foam blowing agent, UNDP indicated that there are multiple patents on some applications of methylal. However, there is no patent that comprehensively covers the use of methylal as a blowing agent in polyurethane foams, and there have been no attempts by any corporate or other entity to claim ownership of the technology for the subject application. As methylal has been used (and is still used) by several large chemical manufacturers in polyurethane applications and, in addition by up to 30 enterprises in Europe, it would be very difficult for anyone to claim this technology and to enforce licenses. It is therefore Lambiotte, Arinos and UNDP's opinion that the technology is free to use.

118. After addressing all the comments raised by the Secretariat and the technical reviewer, UNDP revised the final report of the demonstration project, accordingly.

Secretariat's recommendation

119. The Executive Committee may wish:

(a) To note with appreciation the report entitled "Methylal as blowing agent in the manufacture of polyurethane foam systems. An assessment for the application in MLF projects", submitted by UNDP; and

(b) To request bilateral and implementing agencies to share the UNDP assessment report on methylal, together with information on other alternatives, when assisting Article 5 countries in preparing projects for the phase-out of HCFC-141b in polyurethane foam applications.

**Global: Low cost options for the use of hydrocarbons in the manufacture of polyurethane foams. An assessment for the application in MLF projects**

*Background*

120. UNDP has submitted to the 66th meeting a technical report on low cost options for the use of hydrocarbons in the manufacture of polyurethane foam: An assessment for the application in MLF projects. The complete technical review is attached to this document (Attachment III).

121. At its 58th Meeting, the Executive Committee approved validation/demonstration of low-cost options for the use of hydrocarbons as a foaming agent in the manufacture of polyurethane foams in Egypt (decision 58/31).

*Executive summary*

122. The demonstration project on low cost options for the use of hydrocarbons differs from other pilot projects in that it focuses on optimizing costs and performance of an existing and broadly applied technology. High costs effectively limit hydrocarbon technology to large enterprises and have led indirectly to the widespread use of HCFC-141b in smaller and/or less sophisticated enterprises. While the financial threshold for such projects has recently increased based on its low-GWP impact, so have equipment costs. Therefore, SMEs can only fall back on environmentally undesirable HFCs, marginally performing water-based systems, or hope that the assessment of new technologies will provide more satisfactory options.

123. The use of hydrocarbon technology has not materially changed over the last 20 years. It requires costly pre-blending and metering equipment, an explosion-free production area, and special safety procedures. Also, in many countries the systems formulations have not changed over the years while improvements in additives, polyols, the option of co-blending and more optimizations could allow better results at the same or lower costs.

124. The demonstration project was implemented in three steps, namely: equipment development, selected through standard procurement procedures by a qualified equipment supplier selected through standard procurement; system development by a qualified systems house including trials at an amenable local foam manufacturer or systems house with the appropriate capacity; and reporting, which included an inter-regional workshop to disseminate the results, followed by a final report to the Executive Committee.

125. During project implementation, UNDP identified options for: cost reduction in pre-blending at the supplier level which would avoid the need for a pre-blender plus ancillary equipment (e.g., storage tanks, piping); direct injection of hydrocarbons, which also removes the need for pre-blender systems; and, introduction of more recently developed hydrocarbon blends which would allow for lower foam densities.

126. The equipment selected was a three-module high-pressure dispenser capable of processing fully formulated systems, direct injection of flammable as well as non-flammable blowing agents. In the trials it functioned well for HCFC systems (baseline), pre-blended systems and direct injection. In particular, the dispenser offered excellent repeatability; acceptable three stream blending (future adjustments may improve the performance); and high efficiency in blowing agent containment, leading to lower foam densities. Six different systems were selected as shown in the table 7 below. The HCFC-141b systems served as the baseline while pentane isomers reflect current market preferences. All pentane blown systems were evaluated as fully formulated systems (blowing agent included) and as partially blended systems (blowing agent added as a third stream).

**Table 7: Foam blowing systems selected for testing**

| Blowing agent | Commercial refrigeration | Discontinuous panels | Water heaters |
|---|---|---|---|
| HCFC-141b | System A | System C | System E |
| Cyclopentane | System B | System D | System F |
| Normal pentane | System B | System D | |

127. The results of the tests conducted showed that:

(a) Physical and chemical stability of cyclopentane systems under standard conditions for up to six months is confirmed. Normal pentane systems are not stable beyond one month;

(b) For pre-blended systems, as no pre-blender system is needed, cost savings of around US $100,000 can be expected;

(c) Although for direct injection there are no savings in the cost of equipment, the compact design could result in savings in layout and storage;

(d) If the lower free density can be “translated” into lower applied density, operating savings between 6 and 8 per cent (or 10 per cent with direct injection) can be expected as compared to HCFC-141b systems. However, transportation costs may increase;

(e) A slightly higher k-factor[1] (between 5 to 8 per cent) and lower reactivity show that the mixer head impingement has suffered from the introduction of a third stream. While

[1] The thermal conductivity for a unit thickness of material.

improvement could be made with an optimized catalyst package, redesign of the mixing head of the dispenser will need to be considered.

128. While all technical statements are considered universally valid, cost statements are relevant only to Egypt and would need to be adjusted for other regions/countries. While UNDP has identified several areas where follow-up is needed (mixing head efficiency, catalyst optimization) it deemed that the current results are significant and justify immediate publication.

*Conclusion by the technical reviewer*

129. The technical reviewer concluded that the study has verified the acceptable physical properties of rigid foam products for commercial refrigeration, discontinuous panels and water heater applications using pre-blended hydrocarbon-based systems as well as direct metering of hydrocarbons; it has also verified the stability of cyclopentane pre-blended systems for a 5 month period; studies are continuing to verify a minimum 6-month shelf life. It has also shown that n-pentane systems are not suitable for pre-blending due to instability (phase separation) of the blended product. The study has demonstrated the use of a three-component dispensing unit designed to provide flexibility in operation between pre-blended and direct metered hydrocarbon systems.

130. The study did not adequately verify the continued safety of operations of the new systems and equipment. Additional studies should be conducted to generate data clearly establishing that the three-component blending operation meets safety requirements, particularly for flammability, during the processing of both pre-blended systems and direct metered hydrocarbons. Further information should be provided regarding the safety requirements for ventilation and monitoring during transportation and storage of the pre-blended polyol systems, including projected costs. An analysis of the projected costs for the conversion to these pre-blended/direct injection systems should be developed to establish the approximate usage level that will benefit from this technology refinement.

Secretariat's comments

131. The pilot project for the validation of Low cost options for the use of hydrocarbons in the manufacture of polyurethane foams included workshops to disseminate the results of the projects. In this regard, a workshop was conducted in Egypt (4-5 July 2011) with the following participants: 11 systems houses from 5 countries (Egypt, the United Arab Emirates, South Africa, Brazil and Italy); 19 foam manufacturing enterprises from Egypt; representatives from five Article 5 countries (Brazil, Egypt, South Africa, Turkey and United Arab Emirates); representatives from UNDP, UNEP and UNIDO; and, blowing agent wholesalers from Brazil and Egypt; 3 foam injection equipment manufacturers (multinational); and, representatives of the four major international PU chemical manufacturers. The results of the pilot project were disseminated during the HPMP implementation process for a number of countries (Brazil, Nigeria, Mexico), including at stakeholder meetings and visits to foams companies and systems houses. Interest and enquiries have been received from companies in most of these countries.

132. The Secretariat sought a further explanation on the potential incremental costs to be incurred at the enterprise level for using hydrocarbon-based systems. In responding UNDP explained that hydrocarbon pre-blended polyols are dangerous goods and classified as flammable. The polyol storage in a plant should therefore be suitable for storing flammable goods. As the enterprise used pre-blended polyols before, the overall space requirements will be the same and the foam operation would be similar to that using pure hydrocarbon, and therefore safety related equipment and systems should be in place. The main difference is that there is no need for pre-blending *in situ* and thus the downstream user does not need any knowledge of system composition. The infrastructure at the enterprise level is simplified with one less chemical component (pure hydrocarbon) and one less operation (pre-blender and ancillary equipment).

133. Based on the need to provide additional information on safety and cost related issues as suggested by the technical reviewer, UNDP will conduct additional related investigations focussing on tailoring safety concepts for each of the two approaches (direct injection, pre-blended systems); the observed fact of lower free rise densities obtained from pre-blended polyols and directly injected that could lead to lower (acceptable) product densities; mixing head optimization; extending the direct injection approach to a cost-effective retrofit model, and a costing concept based on this report. The results of these follow-up investigations will be presented in a supplemental report that will be submitted to the 67th meeting.

Secretariat's recommendation

134. The Executive Committee may wish:

(a) To note with appreciation the report entitled "Low cost options for the use of hydrocarbons in the manufacture of polyurethane foams: An assessment for the application in MLF projects", submitted by UNDP; and

(b) To request UNDP to finalize the additional investigations on safety related issues, densities and optimization of equipment and further develop a costing concept based on the pre-blended hydrocarbon polyols and submit a supplementary report to the 67th meeting; and

(c) To request bilateral and implementing agencies to share the UNDP assessment report on low cost options for the use of hydrocarbons in the manufacture of polyurethane foams, together with information on other alternatives, when assisting Article 5 countries in preparing projects for the phase-out of HCFC-141b in polyurethane foam applications.

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**Annex I**

**DETAILED WORK PLAN AND BUDGET ESTIMATES FOR NCPP ACTIVITIES, CY 2012 until April 2013**

| Programme Element | Specific Activities (provide details) | Target | Budget estimate (for each activity within each programme element) US$ | Period of implementation (include month and year) | Secretariat's proposal |
|---|---|---|---|---|---|
| 1.Project Management | 1.1 PMU Staff costs | 8 | 88,550 | Jan 2012-April 2013 | 88,550 |
| | 1.2 Maintenance and Other Operating Expenses (supplies, communications, repairs and maintenance of equipment, gasoline and other lubricants, miscellaneous and contingency) | | 47,619 | Jan 2012-April 2013 | 20,000 |
| | 1.3 Attendance to Annual consultations/meetings (local/international) | 4 | 58,000 | Jan 2012-April 2013 | 20,000 |
| | 1.4 **Training/Seminars/Workshops (local and international)** | | | | |
| | 1.4.1 Attendance to financial and administrative workshop to harmonize the policies of UNEP and the GoP | 1 | 8,200 | June 2012 | |
| | 1.4.2 Attendance to technical training to ensure the compatibility of Philippine system with China web-based system in tracking the stock of CFCs in the global market | 1 | 19,048 | 3rd Quarter of 2012 | 10,000 |
| | 1.4.3 Follow-up training of partner agencies and regional offices on database management and maintenance | 4 | 28,571 | 3rd Quarter of 2012 | |
| | 1.4.4 Regional forum on the updates of the NCPP Project Implementation and other NCPP implementation requirements | 2 | 28,572 | June 2012-April 2013 | |
| | 1.5 **Turn-over of training equipment to Training Institutes** | 150 sets | | | |
| | 1.5.1 Conduct meetings with TESDA on the findings of the assessment on the training equipment conducted by NCPP-PMU | 12 | 286 | Jan -June 2012 | |
| | 1.5.2 Conduct physical verification of training equipment nationwide | 16 regions | | | |
| | 1.5.3 Conduct of final inventory of project fixed assets and preparation of turn-over documents and/or deed of donations to EMB Regional Office and partner agencies | | 11,905 | | |
| | 1.5.4 Preparation of documentary requirements and distribution of deed of donations | 150 Training Institutions & 16 EMB Regional Offices | | | 5,000 |
| | 1.7 **Preparation of Project Completion Report of overall implementation of the NCPP (for the period 2012-2014)** | | | | |
| | 1.7.1 Hiring of Individual Consultant for the preparation of PCR | 1 | 4,762 | January-April 2013 | |
| | 1.7.2 Conduct of annual financial audit | 2 | 4,762 | 2012-2013 | |
| | 1.7.3 Preparation/Finalization of reports (closing of books, meetings with partner agencies, TWG, etc.) | 2 | 1,429 | January-April 2013 | |
| **Sub-total** | | | **194,169** | | **143,550** |

| Programme Element | Specific Activities (provide details) | Target | Budget estimate (for each activity within each programme element) US$ | Period of implementation (include month and year) | Secretariat's proposal |
|---|---|---|---|---|---|
| 2.Prevention of additional supply of ODSs/HCFCs | 2.1 Hiring of auditing firm to conduct Verification Audits for CFCs and HCFCs<br>2.1.1 CY 2009&2010 (HCFCs)<br>2.1.2 CY 2011-2013 (CFCs and HCFCs) | 2<br>4 | 47,619 | 2nd Quarter of 2012<br>Every 1st Quarter of 2012 and 2013 | 30,000 |
| | 2.2 Hiring of IT firm to develop a web-based CFC/HCFC import and export monitoring system | 1 | 23,810 | 4th quarter of 2012 | 10,000 |
| | 2.3.1 Conduct of BOC Customs Officers Training nationwide on the developed web-based CFC/HCFC imports and exports monitoring system<br>2.3.2 Conduct technical training for BOC inspectors on skills in the identification and close montoring of HCFC and equipment using HCFC | 4 | 47,619 | 1st quarter of 2013 | 20,000 |
| | 2.4 BoC enforcement of approved regulatory and policy measures for HCFC reduction and eventual phase-out<br>2.4.1 Provide regulatory support to BoC on the implementation on the revised CCO | 1 | 7,142 | January 2012-April 2013 | |
| | 2.5 Monitoring of grant recipients under type 1 subprojects (conversions) in compliance with CFC/HCFC regulations<br>2.5.1 Conduct of compliance monitoring of completed investment projects | 5 (Phase 2) | 4,762 | 2012-April 2013 | |
| | 2.5.2 Provide regulatory support to FDA on the conduct of market monitoring of compliance of pharmaceutical industry, medical practitioners, and MDI users on the phase out of CFC-containing MDIs. | 16 | 4,762 | 2012-April 2013 | 5,000 |
| | 2.6 Implementation of the amended IRR of PD 1572 specifically on the accreditation of service shops<br>2.6.1 Provide regulatory support to DTI and LGUs on the service shops' full compliance to the accreditation requirements<br>2.6.2 Monitoring of service shops nationwide in coordination with DTI and BPLO | 16 DTIs<br>2521 | 7,143<br>28,571 | 2012-April 2013 | |

| Programme Element | Specific Activities (provide details) | Target | Budget estimate (for each activity within each programme element) US$ | Period of implementation (include month and year) | Secretariat's proposal |
|---|---|---|---|---|---|
| | 2.7 Conduct of compliance monitoring on the registration of ODS Handlers, dealers and resellers nationwide | 16 | 7,937 | 2012-April 2013 | |
| | 2.8 Development and publication of Philippine National Standards for refrigerant cylinders and other HCFC appliances | 1 | 7,143 | 1st quarter of 2013 | |
| **Sub-total** | | | **86,509** | | **65,000** |
| 3. Elimination of CFC demand in the country | 3.1 **Updating of the Code of Practice Manual on Refrigeration and Airconditioning to include other new chemicals & technologies**<br>3.1.1 Hiring of a Technical Expert/Consultant<br>3.1.2 Coordination meetings with core group consist of 5 technical groups/associations that would prepare the draft COP<br>3.1.3 Conduct of Regional consultations nationwide on the updated Code of Practice | <br><br>1<br>1<br><br>3 | <br><br>7,143<br>4,286<br><br>21,426 | <br><br>2nd Quarter of 2012<br><br>3rd and 4th Quarter of 2012 | 15,000 |
| | **3.2 Assessment of Service Shop Voucher Grantees**<br>**3.2.1** Hiring of Regional Coordinators<br>3.2.2 Conduct of actual survey<br>3.2.3 Hiring of M& E Consultant for the assessment of Training Institutes and Service Shop grantees (85% audit)<br>3.2.4 Regional consultation on the draft assessment report<br>3.2.5 Finalization of assessment report | <br><br>10<br>1,339<br>1<br><br>4<br><br>1 | <br><br>12,753<br>25,505<br>3,524<br><br>21,423 | <br><br>3rd Quarter of 2012<br><br>4th Quarter of 2012 | 5,000 |
| | 3.3 Support to regional monitoring and validation on the findings of the technical and system audit in compliance to the terms and conditions of the voucher system | 16 Regions<br>2521 service shops | 57,143 | 1st quarter of 2013 | 40,000 |
| | 3. 4 Conduct of re-training of trainers of TESDA and TESDA accredited institutions nationwide particularly on the implementation of the 3RS and the inclusion of new chemicals including HCFCs and other technologies in the updated CoP. | 300 TESDA Trainers | 35,714 | 3rd and 4th Quarter of 2012 | 30,000 |
| | 3.5 Support to TESDA on the conduct of regional assessment and certification of remaining service technicians nationwide<br>3.5.1 Training supplies and materials<br>3.5.2 Travelling expenses<br>3.5.3 Coordination meetings with TESDA assessors and focal persons | 980 service technicians | 16,333 | 1st quarter of 2013 | |

| Programme Element | Specific Activities (provide details) | Target | Budget estimate (for each activity within each programme element) US$ | Period of implementation (include month and year) | Secretariat's proposal |
|---|---|---|---|---|---|
| | 3.6 Regulatory support to LTO in compliance to the JAO 03 series of 2006: Enforcement of Regulation on the Implementation of the NCPP on Motor Vehicles under the Revised Chemical Control Order for ODS: | | | | |
| | 3.6.1 Conduct coordination meetings with LTO on the preparation of assessment report on the compliance of motor vehicles to refrigerant type | 10 | 1,190 | 2nd Quarter of 2012 | |
| | 3.6.2 Provision of refrigerant identifiers to LTO district offices (only in 6 key areas nationwide) to fully implement the banning of motor vehicles equipped with CFC MAC starting January 2012 | 108 | 205,714 | | |
| | 3.6.3 Conduct of MAC random roadside inspection by a composite team on a quarterly basis | 80 | 9,524 | 2012-April 2013 | |
| | | | | | 80,000 |
| **Sub-total** | | | | | **170,000** |
| 4. Management of unwanted ODS | 4.1 Collection, transport and storage of recovered refrigerants from service shop grantees and chiller owners nationwide including confiscated refrigerants | | | | |
| | 4.1.1 Conduct coordination meetings with DELSA on the CTS scheme to cover other regions | 16 regions | 72,857 | 2012-April 2013 | |
| | 4.1.2 Hauling of collected/confiscated refrigerants (from regional key areas to central CTS facility) | | | | |
| | | | | | 30,000 |
| | 4.2 **Procurement of additional Equipment for the collection, transport and storage of recovered refrigerants from service shops, chiller owners, etc.**<br>1. 10 units of 1 tonne tank/cylinder<br>2. 4 units Recovery Machine<br>3. 1 unit Transfer Pump<br>4. 20 units (100 KG Cylinder)<br>5. 1 unit Moisture meter for quality assurance for recoverable contaminated refrigerants | | 79,546 | 2nd Quarter of 2012 | |
| **Sub-total** | | | **152,403** | | **30,000** |

| Programme Element | Specific Activities (provide details) | Target | Budget estimate (for each activity within each programme element) US$ | Period of implementation (include month and year) | Secretariat's proposal |
|---|---|---|---|---|---|
| 5. IEC and Public Awareness | 5.1 Conduct of advocacy and communication skills enhancement training in Luzon, Visayas and Mindanao | 4 | 26,190 | 4th Quarter of 2012 | 20,000 |
| | 5.2 Conduct of orientation seminars among BPLO of LGUs and DTI on accreditation requirements | 300 | 30,357 | 3rd Quarter of 2012 | |
| | 5.3 **Development and production of IEC materials**<br>- Amended CCO for ODS<br>- Revised Code of Practice<br>- Updated NCPP Primer including HCFC<br>- Brochures and leaflets<br>- Tarpaulins/Posters<br>- Newsletters<br>- Web Pages that highlight service shop benificiaries<br>- E-learning training modules<br>- Social Networking<br>- Video Documentary | | 45,456 | 2012-April 2013 | |
| | 5.4 Production and airing of broadcast media on ozone layer depletion, NCPP major achievements, ban of CFCs in RAC/MAC sector and reduction as well as banning of HCFCs | | 90,476 | 2012-April 2013 | |
| | 5.5 Ad hoc promotional activities during Ozone Month and Earth Day Celebrations. | 3 | 21,429 | 2012 -April 2013 | |
| **Sub-total** | | | **20,000** | | **20,000** |
| **GRAND TOTAL** | | | **453,081** | | **428,550** |

**ATTACHMENTS**

| | |
|---|---|
| Attachment I | Progress Report on the Implementation of the Executive Committee Decision 64/20 on the Institutional Strengthening project of DPR Korea submitted by UNEP. |
| Attachment II | "Methylal as blowing agent in the manufacture of polyurethane foam systems. An assessment for the application in MLF projects" submitted by UNDP. |
| Attachment III | "Low cost options for the use of hydrocarbons in the manufacture of polyurethane foams: An assessment for the application in MLF projects" submitted by UNDP. |

**Progress Report on the Implementation of the Executive Committee Decision 64/20 on the Institutional Strengthening project of DPR Korea**

## A. Background:

The 64th meeting of Executive Committee (25-29 July 2011) discussed the submission of DPR Korea's Institutional Strengthening project (ISP) renewal. The following is the extract of the final report of that meeting concerning this issue:

*Paragraph 86. Concern was expressed about the lack of transparency and difficulties in monitoring the exact use of any institutional strengthening funding in the Democratic People's Republic of Korea.*

*Paragraph 87. The Executive Committee decided:*

> *(a) To defer consideration of the request for phase VI of the institutional strengthening project for the Democratic People's Republic of Korea to its 66th meeting; and*
> *(b) To request the Secretariat and UNEP, as implementing agency, to propose alternative methods of disbursement, organizational structures and monitoring procedures to the Executive Committee by its 66th meeting.*
>
> **(Decision 64/20)**

On the margins of the 64th Executive Committee meeting, UNEP discussed with relevant Committee members that are interested in this topic, to provide additional information. During that side meeting, the following specific issues were raised clarifying the intent of the Decision 64/20:

- The salary level of the Ozone Officer and the modalities of salary payment under the ISP: It was noted that the cost of the salary is high and not in line with local salaries and the payment to the Ozone Officer through the Government needs more transparency. As an alternative, it was suggested if it was possible for UNDP Pyongyang to pay the Ozone Officer with a reduced salary level?
- The UNEP delegation was provided with a document that had details about UNDP's new Internal Control Framework for implementation of projects in DPR Korea. UNEP was asked to explore to which extent the ISP project could be implemented in light of such a framework.
- Possibility for the Ozone Officer to be housed in UNDP's Pyongyang office.

Following the Executive Committee decision and the above discussions, UNEP's Compliance Assistance Programme (CAP) informed DPR Korea's National Ozone Unit (NOU) about the Executive Committee Decision 64/20, and sent a formal letter to the UNDP Representative in Pyongyang through the Director of UNEP's Regional Office for Asia and the Pacific (ROAP) to initiate the consultation. It later agreed that the consultation would be conducted in Pyongyang during a joint UNIDO/UNEP mission for the country's HPMP preparation during 28 November to 1 December 2011.

UNEP prepared a draft report based on consultations in Pyongyang and circulated it to the Multilateral Fund Secretariat for review and comments. UNEP has also been keeping relevant Executive Committee delegations informed of these consultations. Based on comments/input received, UNEP finalized the report for the consideration of the Executive Committee.

The following three parts describe the current implementation modality of the IS project in DPR Korea, the consultation process in Pyongyang and the proposed alternative methods for disbursement, organizational structure and monitoring procedures as requested by the Decision 64/20 of the Executive Committee. At the end of the report, recommendations are proposed for the consideration of the Executive Committee at its 66th meeting.

## B. Current methods of disbursement, organizational structures and monitoring procedures for the implementation of the Institutional Strengthening Project

*Disbursement*

Under the current financial system, UNEP has been transferring the approved fund under the Institutional Strengthening Project to DPR Korea through the Small Scale Fund Agreement (SSFA). Following the signature of SSFA between DPR Korea and UNEP with the agreed work plan, the first payment would be made as cash advance to support the NOU to conduct the planned activities. Upon receipt of a satisfactory interim progress report and financial reports and confirming that 80% of first payment has been spent, UNEP would proceed with making the second payment. This modality is applying to all ISPs that UNEP is implementing as the implementing agency.

The cash advance and the later reimbursement will be diverted to the National Ozone Unit, National Coordination Committee for Environment (NCCE) through UNDP Pyongyang in local currency.

*Organizational Structure*

The National Ozone Unit (NOU) is one of the core organs under the National Coordinating Committee for Environment (NCCE), which is chaired by the Vice Minister of the Ministry of Foreign Affairs. NOU is administrated by NCCE and supported by project officers and coordinators overseeing the activities relating to Montreal Protocol. All staff working in NOU is appointed by the Government of DPR Korea.

*Monitoring procedure*

As specified in SSFA, the NOU needs to submit regular progress report on the implementation of the agreed work plan as well interim and final financial report for UNEP's review. The NOU would also share the final products such as the newsletters, poster etc that produced under the ISP with UNEP. UNEP maintains regular contact with NOU through UNDP Pyongyang on any queries, and/or clarification; Further UNEP takes supervision and inspection mission from time to time to visit Pyongyang, in combining with the implementation of other approved activities under Multilateral Fund. UNEP also have participated in some of activities organized by the NOU such as Ozone Day Celebration in Pyongyang.

## C. Consultation Process in Pyongyang during 28 November-1 December 2011

<u>Meeting with National Coordination Committee for Environment (NCCE)/NOU</u>

UNEP and the NCCE of DPR Korea first jointly reviewed the Decision 64/20, and identified possible alternatives that the NOU could consider. The following issues were highlighted during the discussion:

*General Issues:*

- The NOU first raised concerns about the impact of the delayed approval of ISP for the country's compliance, and requested UNEP to convey a similar message as recorded in the final report of the Joint Meeting of the South Asia-South East Asia Regional Network of ODS Officers in Pokhara during 17-19 October 2011 on this matter, i.e." Network countries felt that the IS funding is essential for successful implementation of the Montreal Protocol and Executive Committee should be informed of countries concerns of difficulties that may face if any disruption or delay in funding of IS projects".
- The NOU further stated that it would cooperate with UNEP and the Multilateral Fund Secretariat to explore possible alternatives as requested by the Executive Committee, even though it was not convinced that it should be singled out for such a treatment.
- The possibility to transfer the ISP to UNDP was discussed. However the NOU preferred that UNEP continues implementing the ISP considering the long term cooperation with UNEP for more than 20 years, and national stakeholders' familiarity with UNEP's reporting requirements and procedures.

*Disbursement*

- The option to stop advance payment under the current system was discussed. This means that following the signing of the SSFA, the NOU would need to organize the planned activities by using funding from other internal resources, and upon the submission of the progress report, the financial report and the receipts, UNEP would reimburse the cost accordingly through UNDP Pyongyang. The NOU warned that without advance payments under the ISP, the planned activities may not be organized as originally planned, as it will depend on the availability of the funding in the other departments of the Ministry. Therefore, it might delay the project implementation. The NOU advised it would be more efficient to continue the current advance payment system, but strengthen the management and monitoring on the use of the advance payment.

*Organizational Structure*

- Concerning the NOU's staff recruitment, the NOU was flexible for the local people to be contracted by UN organization following the established procedures of UNDP, and make payments to those people directly.

*Monitoring procedure*

- Regarding the monitoring of the activities under the ISP, the NOU agreed to coordinate with UNEP more closely, to enable UNEP staffs who are visiting DPR Korea for other activities to participate in these activities. The NOU further agreed to provide UNEP with a separate report for each event they organized under the ISP within two weeks of completing the activity.

<u>Meeting with UNDP, Pyongyang Office</u>

UNDP Pyongyang has been extremely cooperative, and further showed its support to the work UNEP is carrying out in DPRK and expressed its readiness to extend its support if the working environment permits.

UNDP in DPRK has a special Internal Control Framework and signed a MoU with the DPR Korea Government specifying those special operating arrangements under finances, banking, human resources, procurement and reporting.

UNDP is directly implementing its projects under the Direct Implementation Modality (DIM). For an example, no advance payments is allowed under DIM, and UNDP should implement all the activities and make payments directly to the vendors for the goods and services and pay in local currency to their local bank accounts of the vendors. UNDP national personnel should be hired under UNDP contracts and are considered UNDP staff. The procurement of goods and services follow the same strict regime and controls, UNDP verify each requisition for goods and services against the lists of Items Prohibited for Export to and Import from DPRK pursuant to UNSCR 1718 including checking the items against the category "double use items" and accordingly UNDP requests vendors to provide export licenses for goods containing at least 10% of US or Japanese made components or technology.

UNEP can completely hand over the project to UNDP Pyongyang to be implemented under UNDP DIM. This means that the project will be completely managed under UNDP rules and regulations, and the complete budget should be transferred to UNDP to implement the project and not only part of it, this includes managing the staff and resources, activities and payments. UNDP for that will charge its fixed General Administration fee of 7% as well as the Implementation Support Services for DIM projects, which should be added to the total budget of the project. It concluded that it would be more cost effective if the ISP could be directly implemented by UNDP as the implementing agency.

However, it also recognized that the country's preference of continuing with UNEP should be respected. In addition, if the ISP is to be transferred, the financial implications to the Multilateral Fund due to the charging structure for programme support cost (PSC) for the ISP, also needs to be considered. UNEP is open to any alternatives, including transfer of the ISP to other implementing agency such as UNDP which will need consultations with UNDP Montreal Protocol Unit.

It was noted that as per the salary level determined by International Civil Service Commission (ICSC), the current salary level of the NOU staff under the ISP is reasonable. Currently, the proposed salary level for the 3 staff of the NOU is about USD 520/month per person on an average. For comparison, the salary level of local professional working on other projects for UNDP is about USD 900-1,000/month as per the established salary level by ICSC. If UNEP needs to hire the local staff directly, as per UNDP procedure the salary level would need to be increased, which will mean additional burden on MLF and will not be consistent with the Excom decisions on funding levels for ISPs.

For the housing the NOU staff, UNDP Pyongyang informed UNEP that it has space constraints currently and in fact one of its project office is located outside of UNDP component in Pyongyang as well. Therefore, to house 3 staff of NOU in UNDP Pyongyang office would be difficult. Also it recognized due to the nature of the work of NOU, it might not be efficient for NOU to be located in UNDP compound as well.

UNDP Pyongyang also advised UNEP to contact other agencies that are operating in DPR Korea to understand their execution modalities. Later, United Nations Children's Fund (UNICEF) confirmed that "UNICEF has a full fledged office here in Pyongyang, DPR Korea and manages its activities like any other country office does".

UNEP internal consultation

Concerning the direct contract the local people who are working for NOU, UNEP ROAP consulted UN Economic and Social Commission for Asia and the Pacific (ESCAP) that is providing administrative service to UNEP ROAP. It was advised that ESCAP would not be able to contract the Ozone Officer without daily supervision in Pyongyang. Therefore, UNEP would not be a position to recruit the local people.

It was agreed that the following alternatives could be submitted to the Executive Committee for consideration after further consultation with the Multilateral Fund Secretariat.

**D. Proposed alternative methods of disbursement, organizational structures and monitoring procedures**

***Fund disbursement approach under the ISP:***

Activities:

All activities under ISP would be undertaken locally, such as public awareness events, UNEP and NCCE would sign a financial agreement (SSFA) to clearly define all activities and the respective costs. UNEP, as per the financial agreement, would make advance payments in Korean Won through UNDP Pyongyang after a detailed workplan for the year has been submitted listing the activities that will be conducted. However, the advance payment would not be spent for any of these activities unless the NOU submits a separate further detailed Terms of Reference (TOR) for each of the planned activities at least one month before the activity, for endorsement by UNEP. It was also agreed that within two weeks following the completion of the activity, the NOU would submit to UNEP a detailed report of the activity undertaken against the endorsed TOR with expenditure reports as well as original receipts for UNEP's review and monitoring. For any activities that are organized without UNEP's pre-endorsement, UNEP would not agree to cover the cost from the advance payment under the ISP.

***Organization Structure:***

The NOU staff would be recruited by the Government, and would be physically located in Ministry of Environment and Land Protection. UNEP, UNIDO and their consultants could easily visit the NOU office during their missions, and the NOU staff would be invited to the meetings of the Regional Networks of Ozone Officers, as well as other relevant meeting concerning the implementation of the Montreal Protocol.

***Monitoring Procedures:***

As agreed with NCCE, in addition to the semi-annual progress report that is required for any country as per UNEP procedures, the NOU of DPR Korea would conduct each planned activity as per pre-endorsed TOR following the above mentioned procedure and submit activity report within two weeks of completion of the activity. In addition, UNEP would coordinate with the NOU on the timing of the organization of any activity to maximize UNEP staff's physical participation in ISP activities. UNEP has other projects with DRP Korea beyond those of the Multilateral Fund, and there are visits by UNEP ROAP (i.e. non-CAP) staff to Pyongyang frequently which will also be utilized for such monitoring. UNEP CAP would also try its best to organize its visits twice a year to conduct review and supervision work.

The NCCE also agrees that UNEP would have unhindered access to project sites, as necessary for the implementation, monitoring and oversight of its programme.

**Recommendation:**

The Executive Committee might like to consider the following in light of the consultation and discussion as reported above:

- Take note of the consultations made by UNEP and the Multilateral Fund Secretariat and proposed alternatives;
- To approve the ISP renewal for DPR Korea, and request UNEP to implement the ISP as per the proposed alternatives in Section D above;
- To request UNEP to report back the implementation status of the proposed alternative when it submit the renewal of the ISP for DPR Korea to the further coming meeting of the Executive Committee.

or

- Take note of the consultations made by UNEP and the Multilateral Fund Secretariat and the proposed alternatives;
- To request other IAs who are interested in the implementation of the IS project for DPR Korea to further consultation with the Government of DPR Korea following Decision 64/20 with alternative methods of disbursement, organizational structures and monitoring procedures to the Executive Committee by its 68th meeting.