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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-eighth Meeting
Montreal, 14-16 July 1999

REPORT OF THE SEVENTEENTH MEETING OF THE SUB-COMMITTEE ON PROJECT REVIEW

Introduction

The Sub-Committee on Project Review of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol met in Montreal, on 12 and 13 July 1999.

The meeting was attended by representatives of Brazil, Burkina Faso, India, Italy, Japan (Chair), and the United States of America, as well as by representatives of the implementing agencies.

The meeting was also attended by the representatives of Canada and Sweden, as observers, and by an observer from the Alliance for Responsible Atmospheric Policy (ARAP), representing industry non-governmental organizations.

AGENDA ITEM 1: OPENING OF THE MEETING

1. The meeting was opened by the Chairman of the Sub-Committee, Mr. Tadanori Inomata (Japan), at 10 a.m. on Monday, 12 July 1999.

AGENDA ITEM 2: ADOPTION OF THE AGENDA

2. The Sub-Committee adopted the following agenda on the basis of the provisional agenda contained in document UNEP/OzL.Pro/ExCom/SCPR/17/1/Rev.1:

1. Opening of the meeting

2. Adoption of the agenda

3. Introductory remarks by the Chief Officer

4. Organization of work

5. Issues identified during project review

6. Bilateral cooperation

7. UNEP 1999 Work programme amendments

8. World Bank 1999 Work programme amendments

9. Investment projects (including methyl bromide)

10. Policy Papers:

    (i) Circumstances for the consideration of ODS phase-out in the commercial refrigeration end-user sector: additional considerations;
    (ii) The sterilants sector;
    (iii) Strategy plan of ODS phase-out from production of extruded polyethylene and polystyrene foams sub-sectors of China;
    (iv) Indian halon phase-out strategy;
    (v) China's solvent sector strategy: Report from the Chair of the working group.

11. Other matters

12. Adoption of the report

13. Closure of the meeting.

AGENDA ITEM 3: INTRODUCTORY REMARKS BY THE CHIEF OFFICER

3. The Chief Officer of the Fund Secretariat welcomed the members of the Sub-Committee on Project Review. He noted that, as could be seen from the short overview paper prepared by the Secretariat (document UNEP/Ozl.Pro/ExCom/28/19/Rev.1), the Secretariat's review of the project proposals before the current meeting had given rise to no questions on major policy issues, a trend which would likely continue. Only in one connection, namely the question of establishing and confirming the ODS consumption of enterprises that provided services and/or goods to customers, did the Secretariat seek guidance for a more durable solution, since the incidence of projects involving such enterprises was expected to increase in the immediate future.

4. A total of 147 project proposals had been submitted for approval by the current meeting, with a value of US $67 million. He was pleased to note that the Secretariat had recommended all but eight of those proposals for blanket approval. Under the 1999 work programmes there were eleven institutional strengthening projects, with a total value of US $1,133,825, which were likewise submitted for blanket approval. A total of eleven bilateral project proposals were before the Sub-Committee for approval and, in the case of two other bilateral projects, the Secretariat had proposed that action be deferred pending the outcome of the proposal for a sector approach to the solvent sector in China. One further bilateral proposal was referred for the consideration of the Sub-Committee on Project Review. He concluded by reporting that there were sufficient resources within the Fund to commit for projects recommended for approval by the Sub-Committee at its current meeting.

AGENDA ITEM 4: ORGANIZATION OF WORK

5. Following the suggestion of the Chair, the Sub-Committee decided to organize its work in accordance with the proposals outlined in the provisional annotated agenda (UNEP/OzL.Pro/ExCom/SCPR/17/1/Add.1/Rev.1).

AGENDA ITEM 5: ISSUES IDENTIFIED DURING PROJECT REVIEW

6. The representative of the Secretariat drew attention to paragraphs 4 to 7 of the overview paper (UNEP/OzL.Pro/ExCom/28/19/Rev.1), which referred to project proposals for enterprises whose work involved providing services to customers instead of, or as well as, goods. The level of funding for projects involving such enterprises was frequently dependent on the level of their consumption of ozone-depleting substances, either because of cost-effectiveness thresholds, or because of the predominance of incremental operating costs in the overall level of eligible project funding. The Secretariat was experiencing increasing difficulties in providing to the Executive Committee the necessary degree of assurance that requested funding would be eligible, when such funding was dependent on enterprise consumption figures given for only a single year.

7. Following the discussion, the Sub-Committee recommended that the Executive Committee request implementing agencies, when submitting project proposals for enterprises

involved in the provision of services, in particular, cold rooms, transport refrigeration, sterilants, etc., to provide, wherever possible, data on procurement and consumption of ozone-depleting substances for a three-year period prior to project preparation and, where such was not possible, to provide an explanation of why data for a three-year period could not be made available.

AGENDA ITEM 6: BILATERAL COOPERATION

8. The Sub-Committee considered 14 project proposals for bilateral cooperation from the Governments of Belgium, France, Germany, Japan and the United Kingdom (UNEP/OzL.Pro/ExCom/ 28/20/Rev.1).

> Project preparation of phase-out of the use of ODS solvent in production of parts working in high voltage conditions in China (US $27,500) (France)
> (UNEP/OzL.Pro/ExCom/28/20/Rev.1)
>
> Project preparation assistance for enterprises in the city of Shenzhen for the elimination of ODS (CFC-113 and TCA) in the production lines of LC displays and TV picture tubes in China (US $50,000) (Japan) (UNEP/OzL.Pro/ExCom/28/20/Rev.1)

9. The representative of the Secretariat pointed to the relevant paragraphs of document UNEP/OzL.Pro/ExCom/28/20/Rev.1 and to the information circulated at the request of the Government of Japan, and contained in document CRP.1. He referred to the phase-out plan for the solvent sector in China, currently being examined by a Working Group, and to possible duplication between the activities under that plan and those contained in the above two bilateral proposals.

10. Following a discussion, the Sub-Committee recommended that the Executive Committee should defer consideration of the projects pending their submission to the Twenty-ninth Meeting of the Executive Committee, at which time the Sub-Committee would be able to judge the proposals on their own merits, and also in the light of the further findings of the Working Group on the Phase-out Plan for the Solvent Sector in China.

> Chiller concessional lending pilot project in Mexico (United Kingdom)
> (UNEP/OzL.Pro/ExCom/28/20)

11. The representative of the Secretariat drew attention to paragraphs 96 to 104 of document (UNEP/OzL.Pro/ExCom/28/20/Rev.1) and said that the project intended to use a grant from the Multilateral Fund to leverage matching funds from local sources to set up a revolving fund to finance replacement of 20 CFC chillers in Mexico with high-energy efficient chillers using HFC-134a (and HCFC-123 when necessary) as refrigerants.

12. The purpose of the project was to test various financing conditions to assess those which were acceptable to chiller owners, while charging a reasonable rate of interest on fund users to minimize erosion of the revolving fund. The project would also try to ensure chiller performance by linking it to chiller purchase and installation contracts.

13. One representative stressed that the issue of concessional lending was still under debate in the Executive Committee and that any decision on the project should not form the basis for the taking of a decision on that issue, with the project being approved as an exception. The same representative also stressed that in the view of his delegation the funds being given by the United Kingdom for the project should be over and above the commitment of grant to the Multilateral Fund by the United Kingdom.

14. Following the discussion, the Sub-Committee recommended that the Executive Committee should approve the project, on the understanding that the Multilateral Fund money repaid in the first phase of the project would be made available for redeployment by the Executive Committee within three years of project approval and would be usable, based on a decision to be taken by the Executive Committee, either for a second phase of chiller purchases in Mexico or for other specific projects to phase out ozone-depleting substances in that country.

15. The remaining bilateral project proposals were submitted for blanket approval. The Sub-Committee recommended that the Executive Committee approve the proposals at the level of funding indicated in the annex to the present report and the Executive Committee should request the Treasurer to offset the costs of the projects, as follows:

(a) US $108,480 against the balance of Belgium's bilateral contributions for the period 1997 through 1999;

(b) US $936,905 against the balance of France's bilateral contributions for the period 1997 through 1999;

(c) US $221,575 against the balance of Germany's bilateral contributions for the period 1997 through 1999;

(d) US $2,507,500 against the balance of Japan's bilateral contributions for the period 1997 through 1999;

(e) US $500,000 against the balance of the United Kingdom's bilateral contributions for the period 1997 through 1999.

AGENDA ITEM 7: UNEP 1999 WORK PROGRAMME AMENDMENTS

16. The Secretariat introduced document UNEP/Ozl.Pro/ExCom/28/21, containing UNEP's 1999 work programme amendments.

17. Following a discussion, the Sub-Committee recommended that the Executive Committee approve UNEP's work programme amendments contained in document UNEP/OzL.Pro/ExCom/28/21 at the level of funding indicated in the annex to the present report.

AGENDA ITEM 8: WORLD BANK 1999 WORK PROGRAMME AMENDMENTS

18. The Secretariat introduced document UNEP/Ozl.Pro/ExCom/28/22, containing the World Bank's 1999 work programme amendments.

19. The Sub-Committee recommended to the Executive Committee that it approve the World Bank's work programme amendments contained in document UNEP/OzL.Pro/ExCom/28/22 at the level of funding indicated in the annex to the present report.

AGENDA ITEM 9: INVESTMENT PROJECTS (INCLUDING METHYL BROMIDE)

(a) Projects recommended for blanket approval

20. The representative of the Secretariat introduced the list of projects recommended for blanket approval (UNEP/OzL.Pro/ExCom/SCPR/17/2/Rev.1).

21. Following the discussion, the Sub-Committee recommended that the Executive Committee approve projects for blanket approval at the level of funding indicated in the annex to the present report, subject to the conditions appearing in the Secretariat's recommendations in the project evaluation sheets.

22. In the context of projects for blanket approval, the Sub-Committee recommended that, in the future:

(a) Where there was an apparent discrepancy between a country's baseline data on consumption of ozone-depleting substances, data on amounts already phased out or planned for phase-out under projects already funded with the resources of the Multilateral Fund and amounts to be phased out under projects proposed for approval, the countries and the relevant implementing agencies should be requested to provide an explanation of the discrepancy to the Sub-Committee on Project Review;

(b) Where the apparent rate of disbursement for approved projects in a country was unjustifiably low, then the country and the relevant implementing agencies should be requested to provide an explanation of the reasons behind such a rate of disbursement.

(b) Projects for individual consideration

Argentina: Demonstration project for testing methyl bromide alternatives in post-harvest disinfestation for cotton and citrus (UNEP/OzL.Pro/ExCom/28/24)

23. Following a discussion, the Sub-Committee recommended that the Executive Committee defer consideration of the above project until the nature of the application of methyl bromide in the project could be verified.

Brazil: Phasing out methyl bromide in the entire tobacco sector (UNEP/OzL.Pro/ExCom/28/25 and Add.1)

24. The representative of the Secretariat drew attention to pages 15 to 20 of document UNEP/OzL.Pro/ExCom/28/25 and pages 7 to 9 of document 28/25/Add.1, noting that the project was to eliminate the use of 703 tonnes of methyl bromide in the production of transplants using the traditional tobacco seedbed technology. This was the entire consumption of methyl bromide in tobacco horticulture in Brazil. The project proposed to install micro-tunnels covered by plastic sheets, a technology which had been selected since it was cost-effective, commercially available and in use by the majority of tobacco growers in developed countries. The technology would require less labour, resulting in lower operating costs. However, up-front funds were needed for purchasing materials for the construction of the micro-tunnels, such as tunnel frame, plastic covers and plastic trays.

25. He stated that the two components with a significant impact on the overall cost of the project were the size of micro-tunnels, and labour. As in any large-scale projects, small changes in the cost of either of these components would result in major changes in project costs. He also pointed out that the net present value of operating savings calculated for four years was greater than the cost of the project.

26. Following discussion in an informal working group established by the Chair, the Sub-Committee recommended:

(a) That the Executive Committee should approve a level of funding for the project of US $2.34 million, as a national incentive and on an exceptional basis, to implement the project in order to phase out at least 20 per cent of the methyl bromide currently used in the tobacco sector (from 421.8 to 337.4 ODP tonnes or less) over a period of three years from project commencement;

(b) That the implementing agency should report back to the Executive Committee three years after project commencement with information on the experience gained in the phase-out, including related costs and remaining consumption of ODS in the sector.

China: Elimination of CFC-12 in manufacturing of EPE foam packaging nets at 27 enterprises (Umbrella Project) (UNEP/OzL.Pro/ExCom/28/26 and Corr.1)

27. The representative of the Secretariat indicated that, in view of the decision of the Committee requesting submission of a sector strategy document for the polyethylene/polystyrene foam sub-sector for China, this project was submitted for individual consideration, in light of the strategy document.

28. Noting the apparent high level of excess capacity currently present in the polyethylene/polystyrene sub-sector in China and noting the statement by the representative of UNIDO that, under the sub-sector strategy, it was proposed to seek funding to convert production, not capacity, the Sub-Committee recommended that the Executive Committee approve the project, with the proviso provided in paragraph 40 of the present report.

China: Elimination of ODS used in the production lines at Irico (Caihong) Color Picture Tube Factory (UNEP/OzL.Pro/ExCom/28/26)

29. The Sub-Committee recommended that the Executive Committee approve the project at the level of funding indicated in the annex to the present report.

India: Phase-out of use of carbon tetrachloride as process agent in the production of endosulphan by Excel Industries Limited (UNEP/OzL.Pro/ExCom/28/31 and Add.1 and Add. 3)

30. The representative of the Secretariat drew attention to pages 20 to 23 of document UNEP/OzL.Pro/ExCom/28/31 and Adds 1 and 3, noting that the project was the first submitted to the Executive Committee to phase out the consumption of carbon tetrachloride used as a process agent. He pointed out that, as required by decision 27/78, a profile of the process agent sector in India was provided in the project proposal, and noted that the project had been reviewed in the light of the agreed broad principles for process agent projects. He explained that a greater volume of the new solvent was required to produce the same quantity of endosulphan, making it necessary to increase the capacity of the various reaction vessels and tanks by about 25 percent. The Fund Secretariat had examined and discussed with the World Bank the most cost-effective approach to the conversion and the extent of the work proposed in relation to replacement of equipment for the process itself and for the utilities such as chilled water that were required, and various other capital items that required specific analysis.

31. Following a discussion, the Sub-Committee recommended that the Executive Committee approve the above project at the level of funding indicated in the annex to the present report, on the understanding that the information and data provided in such projects in the future must meet all the requirements of the guidelines in decision 27/78.

India: Incremental operating costs for compressors for five enterprises in the domestic refrigeration sector (UNEP/OzL.Pro/ExCom/28/31 and Add. 3)

Iran: Replacement of CFC-12 refrigerant by HFC-134a at Iran Compressor Manufacturing Company (ICMC) (UNEP/OzL.Pro/ExCom/28/32 and Add. 2)

32. The Sub-Committee recommended that the Executive Committee approve the above projects at the level of funding indicated in the annex to the present report.

Thailand: Umbrella project to convert CFC-12 commercial refrigeration to HFC-134a, and CFC-11 to HCFC-141b as the blowing agent for foam insulation at 224 small and medium-sized enterprises (UNEP/OzL.Pro/ExCom/28/43 and Add. 2)

33. The Sub-Committee recommended that the Executive Committee approve the above project at the level of funding indicated in the annex to the present report.

AGENDA ITEM 10: POLICY PAPERS

Circumstances for the consideration of ODS phase-out in the commercial refrigeration end-user sector: additional considerations (UNEP/OzL.Pro/ExCom/28/47)

34. In its deliberations the Sub-Committee had before it document UNEP/OzL.Pro/ExCom/28/47 on circumstances for the consideration of phase-out of ozone-depleting substances in the commercial refrigeration end-user sector. Introducing that report, the representative of the Secretariat recalled that the Executive Committee, in its decision 26/38, had requested the Secretariat, in conjunction with the implementing agencies, to prepare a paper on the circumstances under which the Committee could consider projects from Article 5 countries to retrofit commercial refrigeration appliances and on how the incremental costs of such projects should be calculated. The paper prepared in response to that decision (UNEP/OzL.Pro/ExCom/27/39) contained possible initial guidelines for projects in the sub-sector and included a number of provisions. Subsequently, the Executive Committee, in its decision 27/77, had requested the Secretariat and implementing agencies to refine the proposed guidelines taking into account the comments made by members of the Sub-Committee on Project Review.

35. The Secretariat had analysed the comments made by members of the Sub-Committee and, in document UNEP/OzL.Pro/ExCom/28/47, had grouped them into several distinct categories and had attempted to draw related conclusions. In that exercise, the Secretariat had worked in close coordination with the implementing agencies and the document represented a consensus approach reached with them. The Secretariat sought guidance on the circumstances under which priority should be accorded to activities associated with end-user conversions and provided a list of the relevant circumstances that might need to prevail. Such circumstances were likely to apply to all countries at the appropriate time in the future, towards the end of their phase-out programmes and as the phase-out dates for Article 5 countries drew closer.

36. Following a discussion on the item, and consultations among its members in an open-ended contact group established for that purpose, the Sub-Committee recommended that the Executive Committee adopt the following guidelines for end-user conversion in the commercial refrigeration sector:

For an initial period of 18 months, the relevant circumstances which must prevail before priority will be accorded to end-user conversion activities are:

- that the country has production and import controls on CFCs and CFC-based equipment in place and effectively enforced, and restricts the deployment of new CFC components;

- that at the time of seeking compensation in the form of grants for end-user conversions, the country can establish that its major remaining consumption is for the servicing of refrigeration and air-conditioning equipment;

- to establish the above, that comprehensive data on the profile of all remaining consumption has been determined and made available to the Executive Committee;

- that, either no other possible activities would allow the country to meet its CFC control obligations, or the comparative consumer price of CFCs, relative to substitute refrigerants, has been high for at least 9 months and is predicted to continue to increase.

The guidelines for the initial period of 18 months are:

- retrofitting of commercial refrigeration equipment should continue to be assessed on a case-by-case basis;

- training of refrigeration technicians should be recognized as part of end-user conversion activity in the refrigeration sector;

- retrofitting of commercial refrigeration equipment would be considered for funding based on the experience gained from implementation of the relevant parts of a refrigerant management plan;

- for the initial period, pending review, priority should be given to projects for the conversion of cold stores in the agricultural, fisheries or other food-chain industries which are important for the economies of the countries concerned;

- for the initial period, the costs associated with replacement of the refrigerant, replacement of the oil and minor capital items where necessary, and labour at the local labour rate, will be eligible as incremental costs. More extensive conversions including reconditioning or replacement of compressors and major overhaul of refrigeration systems will not be considered under the initial guidelines. Incremental operating costs and savings should be calculated as for other commercial refrigeration projects for a two year period;

- enterprise consumption will be the average annual quantity of CFC refrigerant which can be established as having been added to the refrigeration system as per existing Executive Committee guidelines;

- no cost-effectiveness threshold needs to be established for this initial period but all existing baseline conditions and eligibility criteria will be applied. The funding for the initial period of 18 months will be limited to US $10 million;

- these guidelines should be reviewed after being in operation for 18 months.

The sterilants sector (UNEP/OzL.Pro/ExCom/28/48)

37. The representative of the Secretariat, introducing document UNEP/OzL.Pro/ExCom/28/48 on the sterilants sub-sector, recalled that in its decision 27/21 the Executive Committee had asked the Secretariat, in coordination with the implementing agencies and other experts, to

develop guidelines on the approach to be followed in the consideration of projects in this sub-sector. Since only two projects in the sub-sector had so far been approved by the Executive Committee, there was little information and experience on which to base such guidelines. However, it was possible to characterize conversion activities, technology choices, hardware and facilities requirements, operating cost items, etc., from which general conclusions for guidelines could be drawn. Additional details on eligibility and cost-effectiveness could be added as more information became available. As far as implications for the Fund were concerned, in its 1998 Assessment, the Technology and Economic Assessment Panel had reported that global consumption was difficult to estimate, but was less than 1,000 tonnes, with indications of increased use in the Article 5 countries. It thus appeared that the sub-sector would not become a major area of activity for the Multilateral Fund.

38. Following discussion and amendment from the floor, the Sub-Committee recommended that the Executive Committee adopt the following initial guidelines for projects in the sterilants sector:

(a) Project proposals should be consistent with all the policies and decisions of the Executive Committee, especially those relating to facilities established after 25 July 1995, and to exports.

(b) To avoid confusion between the sterilants and solvents sectors, a sector profile should be prepared when a country has more than one enterprise involved in sterilization activities.

(c) The choice of technology should be fully explained. In particular, noting the requirement for cost-effective solutions consistent with national industrial strategies, an outline cost comparison between the principal technological options should be provided. Where a solution involving the use of HCFCs is proposed, it should be fully consistent with all decisions relating to the use of HCFCs.

(d) Standards for safety. The project should be designed to appropriate norms consistent with industry-recognized national or international standards, for instance the US National Fire Protection Association standard NFPA 560 “Standard for the Storage, Handling and Use of Ethylene Oxide for Sterilization and Fumigation” and the electrical installation standard “NEC Class 1, Division 2, Group B or C” or the equivalent classification in the international IEC codes.

(e) Technological upgrade and non-eligible costs. Noting the changes to plant layout likely in some of these projects and the installation of computer-operated equipment, proposals should include detailed description of the baseline, and separate costs directly associated with phase-out of ozone-depleting substances from those related to factory improvements, which are not eligible for funding. Incremental costs proposed should be fully consistent with relevant Executive Committee decisions concerning technological upgrade.

(f) To facilitate the establishment of consumption data, information on the level of business of the enterprise and of annual consumption of ozone-depleting substances should, wherever possible, be provided for a minimum of three years

prior to the preparation of the project. Where such data were not provided, an explanation should be given of why data for a three-year period could not be made available.

(g) The operating costs should be calculated for a duration of three years. The operating costs for each of the alternative sterilants EO/HCFC, EO/CO^2 and 100% EO should be considered in the choice of technology for each project. An outline calculation of comparative IOC/savings should be included in the project document in support of the choice of technology.

(h) These initial guidelines will be considered for review after sufficient projects in this sector have been considered, to enable general conclusions on costs to be drawn. The review will include consideration of a cost effectiveness threshold.

(i) Pending a review, the cost-effectiveness of project proposals will be considered on a case-by-case basis.

Strategy Plan of ODS phase-out from production of extruded polyethylene and polystyrene foams sub-sectors of China (UNEP/OzL.Pro/ExCom/28/49)

39. The representative of the Secretariat introduced document UNEP/OzL.Pro/ExCom/28/49 which contained, in its Part II, the strategy plan of phase-out of ozone-depleting substances from production of the extruded polyethylene and polystyrene foams sub-sectors of China. He stressed that the document was not intended to represent a sector phase-out plan but, rather, a thorough profile to identify consumption, likely costs and potential approaches to be applied. He drew attention to Part I of the document, which contained the comments of the Fund Secretariat on the strategy.

40. Following informal consultations among the members of the Sub-Committee, the Sub-Committee recommended that the Executive Committee request UNIDO to refine the strategy plan for ODS phase-out from production of the extruded polyethylene and polystyrene foam sub-sectors of China, and resubmit it to the Executive Committee. In the revised strategy, the total capacity of the enterprises for which funding for conversion would be sought would correspond to the existing level of production of the sub-sector indicated in the strategy, including those projects already approved.

India halon phase-out strategy (UNEP/OzL.Pro/ExCom/28/50)

41. The representative of the Secretariat introduced document UNEP/OzL.Pro/ExCom/28/50 and Corr.1 on the Indian halon phase-out strategy, drawing attention to Part A of the document which contained the comments of the Fund Secretariat on the main elements of the strategy.

42. Following the discussion, the Sub-Committee recommended that the Executive Committee should take note of the Indian halon phase-out strategy, as contained in document UNEP/OzL.Pro/ExCom/28/50 and Corr.1, and of the Secretariat's comments thereon.

China's solvent sector strategy: report from the Chair of the Working Group

43. The Chair of the Working Group on the Phase-out Plan for the Solvent Sector in China gave an informal report to the Sub-Committee on the progress made in the Working Group.

AGENDA ITEM 11: OTHER MATTERS

Transportation refrigeration sub-sector

44. One representative sought clarification from the Secretariat with regard to the status of the work being carried out by the Secretariat and the implementing agencies, in accordance with decision 27/75, to provide guidance with regard to projects in the transportation refrigeration sub-sector.

45. The Chief Officer explained that the Secretariat and the implementing agencies had agreed that the paper mandated by decision 27/75 could not be submitted before the Twenty-ninth Meeting of the Executive Committee.

46. Following the discussion, the Sub-Committee recommended that the Executive Committee request the Secretariat, in cooperation with the implementing agencies, to submit the required policy paper to the Executive Committee at its Twenty-ninth Meeting.

AGENDA ITEM 12: ADOPTION OF THE REPORT

47. The present report was adopted at the closing session of the meeting, on Tuesday, 13 July 1999, on the basis of the draft report circulated as document UNEP/OzL.Pro/ExCom/SCPR/17/L.1.

AGENDA ITEM 13: CLOSURE OF THE MEETING

48. The meeting rose at 5:30 p.m. on Tuesday, 13 July 1999.

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
ALGERIA						
AEROSOL						
Filling plant						
Phase out of CFC-11/CFC-12 by conversion to hydrocarbon technology in the manufacture of aerosols at company Saco	UNIDO	19.0	$73,691	$9,580	$83,271	3.88
Phase out of CFC11/CFC12 by conversion to hydrocarbons technology in the manufacture of aerosols at Floreal	UNIDO	18.1	$77,145	$10,029	$87,174	4.26
FOAM						
Flexible						
Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane slabstock foam at Matelas Mondial	UNIDO	20.0	$97,986	$12,738	$110,724	4.95
Phasing out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane slabstock foam at Orania Mousse Ameublement (OMA)	UNIDO	18.0	$99,477	$12,932	$112,409	5.53
Total for Algeria		**75.1**	**$348,299**	**$45,279**	**$393,578**	
ARGENTINA						
FOAM						
Rigid						
Phasing out CFC-11 by conversion to HCFC-141b as a blowing agent in the manufacture of rigid P.U. blocks and tank spraying at Polwer S.R.L.	UNIDO	26.8	$111,641	$14,513	$126,154	4.16
REFRIGERATION						
Domestic						
Replacement of CFC-11 by cyclopentane and CFC-12 by isobutane in the manufacturing of refrigeration equipment at Radio Victoria Catmarca	UNIDO					
Request for change of technology submitted according to Decision 22/69. An amount of $108,246 will be returned to the Multilateral Fund.						
Commercial						
Phaseout of CFC-11 by conversion to HCFC-141b techn.,and of CFC-12 by conversion to HFC-134a in the manufacture of com.ref,display cabinets and polyurethane panels for cold stores at Perito Moreno Ref.	UNDP	31.1	$379,605	$49,349	$428,954	12.20
SOLVENT						
TCA						
Replacement of the present 1,1,1-trichloethane (MCF) sheet steel cleaning system on the steel sheet-cutting table with an aqueous-mechanical system in a steel enterprise (Siderar S.A.I.C.)	IBRD	6.7	$105,147	$13,669	$118,816	15.69

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)	
Multiple solvents							
Umbrella Project for 9 Enterprises - Conversion from MCF 38.50 used as solvent to aqua based cleaning at Argelite La Rioja S.A.; CIMCAM S.A.; Grimoldi S.A.; Heliodino S.A.I.C; Integral Metalurgica S.A; Orbis Mertig S.A.I.C.; Trosh S.A. Unisol S.A. & Buffalo S.A	IBRD	7.1	$272,157	$35,380	$307,537		
Total for Argentina		**71.7**	**$868,550**	**$112,912**	**$981,462**		
BENIN							
SEVERAL							
Institutional strengthening							
Renewal of institutional strengthening, phase II	UNEP		$33,333	$4,333	$37,666		
Total for Benin			**$33,333**	**$4,333**	**$37,666**		
BOLIVIA							
FOAM							
Rigid							
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Quimica Andina	Belgium			$108,480	$108,480		
Total for Bolivia			**$108,480**		**$108,480**		
BRAZIL							
FOAM							
Rigid							
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Ananda	UNDP	16.0	$37,380	$4,859	$42,239	2.33	
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane sprayfoam at Isotherm.	UNDP	26.3	$116,768	$15,180	$131,948	4.44	
Conversion from CFC-11 to HCFC-141b and water based technology in the manufacture of rigid polyurethane foam at Polsul Group	UNDP	55.0	$536,892	$69,058	$605,950	7.36	
Further approval of projects to phase out the foam sector SMEs in Brazil will be subject to the submission by the Government of Brazil of a strategy paper or a plan for phasing out the use of ODS by eligible enterprises in the sub-sector.							
Phaseout of CFC-11 by conversion to HCFC-141b technology in rigid polyurethane foam (spray and pour in place) at SIFC	UNDP	9.5	$74,385	$9,670	$84,055	7.83	
Integral skin							
Phaseout of CFC-11 by conversion to water-blown technology in the manufacture of rigid at Moldepol	UNDP	34.8	$421,444	$54,788	$476,232	12.11	
Polystyrene/polyethylene							
Phase-out of CFC-12 by conversion to n-butane as a blowing agent in the manufacture of extruded polyethylene foams for thermal insulation and food packaging purposes at Epex Co.	UNIDO	135.0	$632,391	$79,563	$711,954	4.68	

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
Multiple-subsectors						
Conversion from CFC-11 to HCFC 141b and water based technology in the manufacture of rigid polyurethane foam and integral skin foam at JNP Group	UNDP	80.3	$823,867	$100,625	$924,492	8.41
Further approval of projects to phase out the foam sector SMEs in Brazil will be subject to the submission by the Government of Brazil of a strategy paper or a plan for phasing out the use of ODS by eligible enterprises in the sub-sector.						
Phaseout of CFC-11 by conv. to water-blown technology in flexible molded foam,to water and methylene chloride blown technology in semi-rigid packaging foam,and to HCFC-141b in the manufacture of flexible integral skin foams at Espuma Oeste	UNDP	16.9	$181,616	$23,610	$205,226	9.94
FUMIGANT						
Methyl bromide						
Phasing out methylbromide in the entire Tobacco Sector *Approved a level of funding in the amount of US $2.34 million as a national incentive and on an exceptional basis, to implement the project to phase-out at least 20% of the current methyl bromide used in the tabacco sector (from 421.8 to 337.4 ODP tonnes or less) over a period of 3 years from the time the project commences. To report back to the Executive Committee 3 years after project initiation with information on the experience gained in the phase-out, including related costs and remaining ODS consumption in the sector.*	UNIDO	84.4	$2,344,440	$267,888	$2,612,328	27.79
REFRIGERATION						
Domestic						
Phase-out of CFC-11 & CFC-12 in the manufacture of domestic refrigerators & freezers by conversion to cyclo-pentane & HCF 134a at Metalurgica Venan Ltda.	UNDP	36.0	$741,800	$91,598	$833,398	13.76
Commercial						
Conversion from CFC-11 to HCFC-141b, and from CFC-12 to HFC-134a and from R-502 to R-402a in the manufacture of commercial refrigeration products at General Icy	UNDP	27.9	$411,139	$53,448	$464,587	14.74
Phasing out CFC-12 with HFC-134a and CFC-11 with HFC-141b at five commercial refrigeration companies (umbrella project)	UNIDO	32.0	$485,916	$63,169	$549,085	15.18
Phaseout of CFC-11, CFC-12 and R-502 by conversion to HCFC-141b technology (foam) and HFC-134a and R-404a technology (refrigerant) in the manufacture of milk coolers and display cabinets at Incomar	UNDP	4.9	$74,529	$9,689	$84,218	15.21
Total for Brazil		**559.0**	**$6,882,567**	**$843,146**	**$7,725,713**	

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
CAMEROON						
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening, phase III	UNEP		$107,000	$13,910	$120,910	
Total for Cameroon			**$107,000**	**$13,910**	**$120,910**	
CHINA						
FOAM						
Flexible						
Conversion of PU slabstock manufacture from CFC-11 to liquid carbon dioxide technology in Longkou Shunfa Foam Plant	IBRD	70.7	$440,461	$57,260	$497,721	6.23
Conversion of PU slabstock manufacture from CFC-11 to liquid carbon dioxide technology in Shandong Tianhua (Group) Plastic Plant	IBRD	85.8	$534,534	$68,799	$603,333	6.23
Rigid						
Phaseout of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane insulation foam at Wuhan Commercial Machinery Factory	IBRD	29.3	$149,195	$19,395	$168,590	5.09
Phaseout of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane insulation foam at Jiangsu Taizhou Commercial Machiner General Factory	IBRD	28.3	$192,890	$25,076	$217,966	6.82
Phaseout of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane foam at Guangdong Zhujiang Refrigeration and Air Conditioning Co.	IBRD	87.7	$581,230	$73,935	$655,165	6.62
Phaseout of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane insulation foam at Heilongjiang Commercial Installation Corporation	IBRD	52.6	$411,858	$53,542	$465,400	7.83
Phase-out of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane insulation foam at Jiaxing Anti-Corrosion Factory.	UNDP	19.4	$151,590	$19,707	$171,297	7.83
Phase-out of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane insulation foam at Hengfeng Polyurethane Spray Co. Ltd.	UNDP	154.1	$1,206,600	$142,726	$1,349,326	7.83
Phase-out of CFC-11 by conversion to n-pentane technology in the manufacture of rigid polyurethane insulation foam at Suzhou Purification Equipment Factory	UNDP	66.0	$516,780	$66,846	$583,626	7.83
Phaseout of CFC-11 by conversion to n-pentane technology in the manufacture of rigid polyurethane foam sandwich panels at Chengde Commercial Machinery Group Co. Ltd.	IBRD	106.0	$829,980	$101,298	$931,278	7.83
Phase-out of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane insulation foam at Penglai Polyurethane Industry Co.	UNDP	63.5	$497,200	$64,636	$561,836	7.83

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
Phase-out of CFC-11 in the manufacture of rigid polyurethane foam through the use of water blown technology at Jiangsu Chemical Research Institute	UNDP	32.4	$253,690	$32,980	$286,670	7.83
Polystyrene/polyethylene						
Elimination of CFC-12 in manufacturing of EPE foam packaging nets at 27 enterprises (Umbrella Project)	UNIDO	825.7	$5,289,441	$591,839	$5,881,280	6.43
The total capacity of the enterprises for which funding would be sought would correspond to the existing level of production of the sub-sector indicated in the strategy, including those projects already approved.						
REFRIGERATION						
Domestic						
Phasing out ODS in the production of compressors at Changshu Refrigerating Equipment Works	Japan	195.0	$2,507,500		$2,507,500	
Commercial						
Replacement of CFC-12 refrigerant with HCFC-22 in the manufacture of small and medium sized open type compressors at Zhejiang Commercial Machinery Factory	IBRD	251.7	$1,710,295	$198,132	$1,908,427	6.79
The World Bank should investigate the possibility of local purchase of measuring equipment and return any cost savings to the Multilateral Fund.						
Replacement of CFC-12 refrigerant with HCFC-22 in the manufacture of semi-hermetic compressors at Yueyang Hengli Air-Cool Equipment Co. Ltd.	IBRD	220.2	$1,951,757	$224,693	$2,176,450	8.86
The World Bank should investigate the possibility of local purchase of measuring equipment and return any cost savings to the Multilateral Fund.						
Replacement of CFC-12 refrigerant with HCFC-22 in the manufacture of small open type compressors at Wuhan Commercial Machinery Factory	IBRD	104.2	$1,457,583	$170,334	$1,627,917	13.99
The World Bank should investigate the possibility of local purchase of measuring equipment and return any cost savings to the Multilateral Fund.						
SOLVENT						
Combined CFC-113 and TCA						
Elimination of ODS used in the production lines at Irico (Caihong) Color Picture Tube Factory	UNDP	202.0	$2,853,200	$323,852	$3,177,052	14.10
Total for China		**2,594.6**	**$21,535,78**	**$2,235,049**	**$23,770,833**	
COLOMBIA						
FOAM						
Rigid						
Elimination of CFC-11 in the manufacture of rigid polyurethane foam through the use of HCFC-141b technology at Rojas Hnos LTDA.	IBRD	8.2	$64,206			7.83
Support costs pending a decision by the Executive Committee on retroactive funding						

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
REFRIGERATION						
Commercial						
Replacement of CFC-11 foam blowing agent with HCFC-141b and CFC-12 refrigerant with HFC-134a in the manufacture of commercial refrigerators and polyurethane sandwich panels at Polares Ltda.	IBRD	4.6	$58,109	$7,554	$65,663	12.52
Replacement of CFC-11 foam blowing agent with HCFC-141b and CFC-12 refrigerant with HFC-134a in the manufacture of commercial refrigerators and polyurethane sandwich panels at Industrias de Supernordico	IBRD	9.6	$128,381	$16,690	$145,071	13.33
Total for Colombia		**22.5**	**$250,696**	**$24,244**	**$210,734**	
CROATIA						
REFRIGERATION						
Refrigerant management plan						
Refrigerant management plan: customs training	UNIDO		$38,250	$4,973	$43,223	
Refrigerant management plan: national recovery and recycling project	UNIDO	15.0	$289,910	$37,688	$327,598	
Refrigerant management plan: phase I: training of trainers in good refrigerant management practices, phase II: national technicians training	UNIDO		$70,000	$9,100	$79,100	
Total for Croatia		**15.0**	**$398,160**	**$51,761**	**$449,921**	
ECUADOR						
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening	IBRD		$97,300	$12,649	$109,949	
Total for Ecuador			**$97,300**	**$12,649**	**$109,949**	
EGYPT						
SOLVENT						
TCA						
Conversion of TCA used for the formulation of degreasing and contact cleaners and crack detectors to new formulations with special hydrocarbons and heavy chlorinated ester at Sien	UNIDO	9.0	$231,435	$30,087	$261,522	25.77
Total for Egypt		**9.0**	**$231,435**	**$30,087**	**$261,522**	
GUATEMALA						
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening, phase III	UNEP		$96,000	$12,480	$108,480	
Total for Guatemala			**$96,000**	**$12,480**	**$108,480**	

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
GUINEA						
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening: phase II	UNEP		$33,333	$4,333	$37,666	
Total for Guinea			**$33,333**	**$4,333**	**$37,666**	
HONDURAS						
REFRIGERATION						
Refrigerant management plan						
Refrigerant management plan: customs training	UNIDO		$38,250	$4,973	$43,223	
Refrigerant management plan: phase I: training of trainers in good refrigerant management practices, phase II: national technicians training project	UNIDO		$70,000	$9,100	$79,100	
Refrigerant management plan: national recovery and recycling project	UNIDO	14.2	$245,900	$31,967	$277,867	
Total for Honduras		**14.2**	**$354,150**	**$46,040**	**$400,190**	
INDIA						
AEROSOL						
Contract filler						
Phaseout of CFC by substituting HAPs at Syncaps	UNDP	53.5	$161,518	$20,997	$182,515	3.02
Phaseout of CFC-12 and CTC by substituting with HAPs at Ruby Aerosols	UNDP	22.8	$45,800	$5,954	$51,754	2.01
Phaseout of CFC-12 and CTC at Vimsons Aerosol by substituting HAPs	UNDP	18.2	$66,500	$8,645	$75,145	4.22
FOAM						
Rigid						
Conversion from CFC-11 to CFC-free technology in the manufacture of rigid polyurethane foam chemical systems at Shivathene Linopack	UNDP		$209,000	$27,170	$236,170	
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulation at Nav Texfeb P. Ltd.	UNDP	32.4	$163,982	$21,318	$185,300	5.07
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulated thermoware at Ashoka Metals	UNDP	12.5	$68,066	$8,849	$76,915	5.46
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulated thermoware at O.K. Industries	UNDP	10.7	$66,227	$8,610	$74,837	6.17
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulation at 28 small and medium-sized enterprises.	UNDP	105.7	$699,139	$86,905	$786,044	6.61
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulated thermoware at Devisons P. Ltd.	UNDP	15.3	$114,940	$14,942	$129,882	7.54

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)	
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulation at Standard Electric Appliances		UNDP	10.0	$78,136	$10,158	$88,294	7.83
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulated thermoware at N.D. Plastics		UNDP	12.9	$101,289	$13,168	$114,457	7.83
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulation at Supertek International		UNDP	10.6	$83,202	$10,816	$94,018	7.83
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam insulated thermoware at Varivar Plast Products P.Ltd.		UNDP	12.3	$96,184	$12,504	$108,688	7.83
Integral skin							
Conversion from CFC-11 to HCFC-141b technology in the manufacture of integral skin polyurethane foam at Primrose Multiplast P. Ltd.		UNDP	9.6	$117,105	$15,224	$132,329	12.16
HALON							
Extinguisher							
Conversion of halon 1211 fire extinguisher production to ABC powder and CO2 units together with the use of recycled halon 1301 in lieu of virgin product at Standard Castings Pvt. Ltd. New Delhi, under the name of Pyrosafety	UNDP	64.1	$92,000	$11,960	$103,960	1.44	
Conversion of halon 1211 fire extinguisher production to ABC powder and CO2 units at M/s Kooverji Devshi & Co. Pvt. Ltd., Mumbai	UNDP	25.5	$37,740	$4,906	$42,646	1.48	
Conversion of halon 1211 fire extinguisher production to ABC powder and CO2 units at Cascade Counsel Ltd. New Delhi	UNDP	54.0	$79,920	$10,390	$90,310	1.48	
Conversion of halon 1211 fire extinguisher production to ABC powder and CO2 units at Bharat Engineering Works, Mumbai	UNDP	49.5	$73,260	$9,524	$82,784	1.48	
Conversion of halon 2111 fire extinguisher production to ABC powder and CO2 units at Zenith Fire Services, Mumbai	UNDP	36.0	$53,280	$6,926	$60,206	1.48	
Extinguisher production and elimination of its consumption of virgin halon 1301 at New Fire Engineers Pvt. Ltd. Mumbai	UNDP	120.0	$130,000	$16,900	$146,900	1.08	
REFRIGERATION							
Compressor							
Compensation for incremental operating cost for compressors in five domestic refrigeration enterprises (BPL, Maharaja, Videocon, Whirlpool, Sarkar)	IBRD		$1,237,521	$146,127	$1,383,648		

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
SOLVENT						
CFC-113						
Conversion of cleaning and coating processes based on CFC-113 and CTC to processes based on IPA at Vidyut Metallics Ltd. (VML)	UNIDO	19.7	$225,452			11.45
Support costs pending a decision by the Executive Committee on retroactive funding						
Conversion of cleaning and coating processes based on CFC-113 to IPA and xylene at Microraj Electronics PVT Ltd. & RCC (Sales) PVT Ltd., Hyderabad (MRJ)	UNIDO	4.3	$85,431	$11,106	$96,537	19.73
Multiple solvents						
Conversion of cleaning processes from TCA and CTC to non-ODS solvent cleaning technologies (trichloroethylene and alkozypropanol) at Videocon Group (VDC)	UNIDO	7.2	$234,978	$30,547	$265,525	32.64
PROCESS AGENT						
Process conversion						
Phaseout of use of Carbon tetrachloride as process agent in the production of endosulphan by Excel Industries Limited	IBRD	375.0	$366,000	$47,580	$413,580	0.98
Total for India		**1,081.8**	**$4,686,670**	**$561,225**	**$5,022,443**	
IRAN						
FOAM						
Flexible						
Phasing out ODS in manufacturing of flexible PU slabstock foam through the use of liquid CO2 blowing technology at Bahman Plastic Co.	UNIDO	83.0	$485,929	$63,171	$549,100	5.85
HALON						
Banking						
Halon management program	France		$511,175		$511,175	
REFRIGERATION						
Commercial						
Conversion from CFC-11 to HCFC-141b and CFC-12 to HFC-134a technology in the manufacture of domestic and commercial refrigeration at the Sherkate Sanayee Emerson (Emerson Co).	UNIDO	45.8	$343,873	$44,703	$388,576	7.20
Phasing out of CFC-11 by conversion to HCFC-141b and CFC-12 to HFC-134a in manufacture of commercial refrigeration at the second group of Iranian Commercial Refrigerator Manufacturers	UNIDO	42.5	$309,966	$40,296	$350,262	7.29
Conversion from CFC-11 to HCFC-141b and from CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration equipment at Movaledsarma Co. (Zagross 1)	UNDP	77.6	$816,698	$99,837	$916,535	10.53

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
Conversion from CFC-11 to HCFC-141b technology and from CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration equipment at Foroughmanesh Co.	UNDP	35.8	$399,803	$51,974	$451,777	11.17
Conversion frm CFC-11 to HCFC-141b and CFC-12 to HFC-134a technology in the manufacture of domestic and commercial refrigeration at the Sherkate Broudati Ghandil Iran (Ghandil Co.)	UNIDO	27.5	$335,423	$43,605	$379,028	12.21
Conversion from CFC-11 to HCFC-141b and from CFC-12 to HCFC-134a technology in the manufacture of commercial refrigeration equipment at Behsarma Co.	UNDP	34.5	$455,593	$59,227	$514,820	13.19
Conversion from CFC-11 to HCFC-141b technology and from CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration equipment at Tahvieh Garm va Sard Co.	UNDP	20.5	$278,659	$36,226	$314,885	13.59
Compressor						
Replacement of CFC-12 refrigerant by HFC-134a at Iran Compressor Manufacturing Company (ICMC)	UNIDO		$1,076,148	$128,376	$1,204,524	
SOLVENT						
Multiple solvents						
Conversion to ODS-free technology at Dorcharkh Company	France	11.0	$165,140		$165,140	14.30
Total for Iran		**378.1**	**$5,178,407**	**$567,415**	**$5,745,822**	
JORDAN						
REFRIGERATION						
Commercial						
Phasing out of CFC-11 by conversion to HCFC-141b and CFC-12 to HFC-134a in manufacture of commercial refrigeration equipment at the Third Group of Jordanian Commercial Refrigerator Manufacturers	UNIDO	26.5	$243,764	$31,689	$275,453	9.20
Phasing out of CFC-11 by conversion to HCFC-141b and CFC-12 to HFC-134a in manufacture of commercial refrigeration equipment at the second group of Jordanian Commercial Refrigerator Manufacturers	UNIDO	25.8	$278,950	$36,264	$315,214	10.80
Refrigerant management plan						
Refrigerant management plan: phase I: training of trainers in good refrigerant management practices, phase II: national technicians training project	UNIDO		$70,000	$9,100	$79,100	
Refrigerant management plan: customs training *To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Jordan are put into place.*	UNIDO		$38,250	$4,973	$43,223	

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
Refrigerant management plan: national recovery and recycling project	UNIDO	19.1	$311,950	$40,554	$352,504	
To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Jordan are put into place.						
Refrigerant management plan: technical assistance and support to develop regulations for ODS to implement the Environment law of 1995	UNIDO		$20,000	$2,600	$22,600	
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening	IBRD		$113,333	$14,733	$128,066	
Total for Jordan		**71.4**	**$1,076,247**	**$139,912**	**$1,216,159**	
KENYA						
REFRIGERATION						
Recovery/recycling						
Recovery and recycling project	Germany		$98,725		$98,725	
Total for Kenya			**$98,725**		**$98,725**	
KOREA, DPR						
SOLVENT						
CTC						
Conversion of metal cleaning processes from CTC solvent to TCE vapour degreasing at Ceramic Tools Factory (CTF)	UNIDO	19.8	$206,657	$26,865	$233,522	10.44
The country programme should be updated by the agency which prepared it (UNEP) to reflect the CTC consumption in the sector identified during preparation of this and previous solvent projects in the country.						
Total for Korea, DPR		**19.8**	**$206,657**	**$26,865**	**$233,522**	
LEBANON						
AEROSOL						
Contract filler						
Conversion to CFC-free technology in the manufacture of aerosols at Societe Nougeaim P.M.O.S.A.L.	UNDP	54.0	$147,333	$19,153	$166,486	2.73
Conversion to CFC-free technology in the manufacture of aerosol at International Cosmetic Manufacturing Co. (Incoma). S.A.L.	UNDP	53.6	$158,582	$20,616	$179,198	2.96
REFRIGERATION						
Preparation of project proposal						
Remaining issues for a RMP and preparation of strategy and projects for reduction of CFC emissions in centrifugal chillers	Germany		$37,550		$37,550	

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
Remaining issues for a RMP and preparation of strategy and projects for reduction of CFC emissions in centrifugal chillers	France		$45,750		$45,750	
Total for Lebanon		**107.6**	**$389,215**	**$39,769**	**$428,984**	
MACEDONIA						
REFRIGERATION						
Refrigerant management plan						
Refrigerant management plan: training for good practices in refrigeration	UNIDO		$70,000	$9,100	$79,100	
Refrigerant management plan: recovery and recycling *To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Macedonia are put into place.*	UNIDO	13.5	$220,044	$28,606	$248,650	
Refrigerant management plan: training of customs officers *To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Macedonia are put into place.*			UNIDO	$37,180	$4,833	$42,013
Total for Macedonia		**13.5**	**$327,224**	**$42,539**	**$369,763**	
MALAYSIA						
FOAM						
Rigid						
Retroactive project for phasing-out ODS consumption in the manufacture of cold room panels by conversion to HCFC-141b at FMCP Sdn. Bhd. *Support costs pending a decision by the Executive Committee on retroactive funding*	UNDP	12.2	$45,557			3.74
Phase-out of CFC-11 in the manufacture of cold room panels and insulation slabs by conversion to HCFC-141b at PKL Insulation.	UNDP	8.1	$57,019	$7,412	$64,431	7.02
Phase-out of CFC-11 and R502 consumption at Thermo Cooling Engineering SDN. BHD.	UNDP	5.9	$46,502	$6,045	$52,547	7.83
Phase-out CFC-11 consumption at Chong Brother Group of Companies	UNIDO	27.6	$216,108	$28,094	$244,202	7.83
Phase out of CFC-11 consumption by conversion to HCFC-141b at Perniagaan Hower in the manufacture of sandwich panels	UNIDO	5.3	$41,499	$5,395	$46,894	7.83
Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam (spray and blocks) at Polyedge Trading	UNDP	10.3	$80,650	$10,485	$91,135	7.83
Phase-out of CFC-11 by conversion to HCFC-141b technology at Automated Plastics System Sdn. Bhd. In the manufacture of insulated fishing boxes	UNIDO	5.2	$40,716	$5,293	$46,009	7.83

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
Total for Malaysia		**74.6**	**$528,051**	**$62,724**	**$545,218**	
MEXICO						
REFRIGERATION						
Multiple-subsectors						
Chiller concessional lending pilot project	UK	5.0	$500,000		$500,000	
The Multilateral Fund money repaid in the first phase of the project would be made available for redeployment by the Executive Committee within three years of project approval and would be usable, based on a decision to be taken by the Executive Committee, either for a second phase of chiller purchases in Mexico or for other specific ODS phaseout projects in that country.						
Total for Mexico		**5.0**	**$500,000**		**$500,000**	
MONGOLIA						
SEVERAL						
Institutional strengthening						
Institutional strengthening	UNEP		$66,000	$8,580	$74,580	
Total for Mongolia			**$66,000**	**$8,580**	**$74,580**	
NEPAL						
REFRIGERATION						
Refrigerant management plan						
Refrigerant management plan: training in monitoring and control of CFC and establishment of import/export licensing system	UNEP		$44,400	$5,772	$50,172	
To request UNEP not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Nepal are put into place.						
Refrigerant management plan: policy development and related information dissemination	UNEP		$6,000	$780	$6,780	
Monitoring activities included in the Refrigerant Management Plan (RMP)	UNDP		$8,894	$1,156	$10,050	
National programme for recovery and recycling of refrigerants	UNDP	6.0	$88,577	$11,515	$100,092	
To request UNDP not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Nepal are put into place.						
Refrigerant management plan: training of trainers in refrigeration	UNEP		$70,000	$9,100	$79,100	
Total for Nepal		**6.0**	**$217,871**	**$28,323**	**$246,194**	

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
NIGERIA						
FOAM						
Flexible						
Phaseout of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam (slabstock) at Diamond Foam Nigeria Ltd.	UNDP	22.7	$112,150	$14,580	$126,730	4.94
Phaseout of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam (slabstock) at United Foam Products Nig. Ltd.	UNDP	25.0	$137,310	$17,850	$155,160	5.49
Phaseout of CFC-11 by conversion to liquid carbon dioxide blown technology in the manufacture of molded flexible polyurethane foam at Automotive Component Industries Ltd.	UNDP	37.0	$204,761	$26,619	$231,380	5.53
Phaseout of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam (slabstock) at Tinuola Bay Industries Nig. Ltd.	UNDP	21.0	$119,410	$15,523	$134,933	5.69
REFRIGERATION						
Domestic						
Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of domestic refrigeration at United Technologies Ltd.	UNIDO	9.6	$130,579	$16,975	$147,554	13.60
Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of domestic refrigeration at Onward Electrical Industry Ltd.	UNIDO	10.7	$146,927	$19,101	$166,028	13.74
Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of domestic refrigeration at Soesons Ltd.	UNIDO	16.1	$221,353	$28,776	$250,129	13.75
	Total for Nigeria	**142.1**	**$1,072,490**	**$139,424**	**$1,211,914**	
PHILIPPINES						
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening	IBRD		$139,333	$18,113	$157,446	
	Total for Philippines		**$139,333**	**$18,113**	**$157,446**	
ROMANIA						
REFRIGERATION						
Refrigerant management plan						
Refrigerant management plan: training of custom officers and development criteria for ODS and ODS consuming equipment imports	UNIDO		$23,100	$3,003	$26,103	
To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Romania are put into place.						

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
Refrigerant management plan: recovery and recycling *To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Romania are put into place.*	UNIDO	50.0	$373,840	$48,599	$422,439	
Refrigerant management plan: training for good practices in refrigeration	UNIDO		$70,000	$9,100	$79,100	
Total for Romania		**50.0**	**$466,940**	**$60,702**	**$527,642**	
SUDAN						
AEROSOL						
Filling plant						
Phasing out of CFCs at Tag Cosmetics Ltd.	UNIDO	45.1	$131,718	$17,123	$148,841	2.92
REFRIGERATION						
Refrigerant management plan						
Refrigerant management plan: recovery and recycling *To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Sudan are put into place.*	UNIDO	50.0	$350,000	$45,500	$395,500	
Refrigerant management plan: training for good practices in refrigeration	UNIDO		$70,000	$9,100	$79,100	
Refrigerant management plan: training of customs officers and development criteria for ODS and ODS consuming equipment imports *To request UNIDO not to proceed with the disbursement of funds approved until the regulatory and legislative requirements to control imports and fiscal steps proposed by the Government of Sudan are put into place.*			UNIDO	$38,250	$4,973	$43,223
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening, phase II	UNEP		$112,200	$14,586	$126,786	
Total for Sudan		**95.1**	**$702,168**	**$91,282**	**$793,450**	
SYRIA						
REFRIGERATION						
Domestic						
Conversion from CFC-11 to HCFC-141b and CFC-12 to HFC-134a in the production of refrigerators and freezers at Golden Penguin Co.	UNIDO	18.4	$247,481	$32,173	$279,654	13.45
Conversion from CFC-11 to HCFC-141b and CFC-12 to HFC-134A in the production of refrigerators and freezers at Alaman Co.	UNIDO	15.9	$215,910	$28,068	$243,978	13.58

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)	
Commercial							
Conversion from CFC-11 to HCFC-141b and from CFC-12 13.27 to HFC-134a technology in the manufacture of commercial refrigeration equipment at Al-Ihsan Co.	UNDP	37.5	$497,250	$64,643	$561,893		
Total for Syria		**71.8**	**$960,641**	**$124,883**	**$1,085,524**		
THAILAND							
FOAM							
Flexible							
Conversion from CFC-11 to low index additive (LIA) technology in the manufacture of flexible polyurethane foam at P.T. Foam Chiengmai L.P.	UNDP	12.7	$79,120	$10,286	$89,406	6.23	
Rigid							
Conversion from CFC-11 to water-based technology in the manufacture of rigid polyurethane foam at Thai Steel Door L.P.	UNDP	10.0	$78,300	$10,179	$88,479	7.83	
Conversion from CFC-11 to HCFC-141b technology in the manufacture of commercial refrigeration equipment at Arco Industry Co., Ltd	IBRD	16.8	$131,544	$17,101	$148,645	7.83	
Conversion to HCFC-141b technology in the manufacture of commercial refrigerator and display cabinets at Makassan Metal Works	IBRD	9.3	$72,819	$9,466	$82,285	7.83	
REFRIGERATION							
Commercial							
Umbrella project to convert CFC-12 commercial refrigeration to HFC-134a, and CFC-11 to HCFC-141b as the blowing agent for foam insulation at 224 small-and-medium-sized enterprises (second tranche)	IBRD		$1,000,000	$120,000	$1,120,000		
Total for Thailand		**48.8**	**$1,361,783**	**$167,032**	**$1,528,815**		
TUNISIA							
AEROSOL							
Filling plant							
Phasing out of CFCs at Laboratoires Parcos	UNIDO	29.8	$76,127	$9,897	$86,024	2.55	
Total for Tunisia		**29.8**	**$76,127**	**$9,897**	**$86,024**		
TURKEY							
FOAM							
Flexible							
Conversion from CFC-11 into low index additive (LIA) technology for flexible slabstock foam at Elta	IBRD	21.3	$130,597	$16,978	$147,575	6.13	
Rigid							
Phasing out of CFC-11 by conversion to HCFC-141b in the manufacture of rigid polyurethane panels for thermal insulation for cold rooms and cold storages at Izotek	UNIDO	74.8	$430,721	$55,994	$486,715	5.75	
Total for Turkey		**96.1**	**$561,318**	**$72,971**	**$634,289**		

Project Title	Agency	ODP Tonnes	Funds Recommended (US$) Project	Support	Total	C.E. (US$/kg)
VENEZUELA						
FOAM						
Polystyrene/polyethylene						
Phasing out CFC-12 at Fandec C.A. (EPSR Foam)	UNIDO	45.0	$290,481	$37,763	$328,244	6.46
Total for Venezuela		**45.0**	**$290,481**	**$37,763**	**$328,244**	
VIETNAM						
REFRIGERATION						
MAC						
CFC emission reductions in spinning halls air conditioning systems chillers, pilot project	France	3.6			$197,340	$197,340
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening, phase II	UNEP		$91,520	$11,898	$103,418	
Total for Vietnam		**3.6**	**$288,860**	**$11,898**	**$300,758**	
ZIMBABWE						
SEVERAL						
Institutional strengthening						
Renewal of institutional strengthening, phase II	UNEP		$114,033	$14,824	$128,857	
Total for Zimbabwe			**$114,033**	**$14,824**	**$128,857**	
REGION: ASP						
HALON						
Banking						
Survey for halon banking management plan in West Asia	Germany		$17,500		$17,500	
Survey for halon banking management plan in West Asia	France		$17,500		$17,500	
Total for Region: ASP			**$35,000**		**$35,000**	
REGION: EUR						
SEVERAL						
Technical assistance/support						
Promoting compliance with the Montreal Protocol in countries with economies in transition (Croatia and Romania)	Germany		$67,800		$67,800	
Total for Region: EUR			**$67,800**		**$67,800**	
TOTAL:		**5,701.1**	**$50,757,12**	**$5,662,362**	**$56,084,275**	