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the Montreal Protocol on Substances
that Deplete the Ozone Layer**

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Item 4 of the provisional agenda of the high-level segment**

**Presentation by the Chair of the Executive Committee
of the Multilateral Fund for the Implementation of the
Montreal Protocol on the work of the Executive
Committee**

**REPORT OF THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL TO THE
THIRTIETH MEETING OF THE PARTIES**

Introduction

1. The present report covers the activities undertaken by the Executive Committee since the Twenty-Ninth Meeting of the Parties¹ and consists of four parts dealing with: policy matters related to the Kigali Amendment; other policy matters; projects, their implementation and monitoring; and business planning, administrative and financial matters.

2. During the reporting period, the 81st meeting was held in Montreal from 18 to 22 June 2018. The report² of that meeting is available on the Multilateral Fund's website (www.multilateralfund.org).

Attendance

3. The 81st meeting was attended³ by Argentina, Benin, the Dominican Republic, Grenada, India, Lebanon and Nigeria, representing parties operating under paragraph 1 of Article 5 of the Protocol (Article 5 parties), and by Belgium, Canada, France, Japan, Norway, Slovakia and the United States of America, representing parties not operating under paragraph 1 of Article 5 of the Protocol (non-Article 5 parties). The meeting was chaired by Mr. Mazen Hussein (Lebanon), with Mr. Philippe Chemouny (Canada) as Vice-Chair.

4. The 81st meeting was also attended by representatives of the implementing agencies, namely, the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), both as implementing agency and Treasurer of the Multilateral Fund, the United Nations Industrial Development Organization

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** UNEP/OzL.Pro.30/1

¹ The terms of reference of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol (UNEP/OzL.Pro.9/12, Annex V) require the Executive Committee to report annually to the Meeting of the Parties

² UNEP/OzL.Pro/ExCom/81/58

³ In accordance with decision XXIX/22 of the Twenty-Ninth Meeting of the Parties

(UNIDO) and the World Bank, by representatives of the Ozone Secretariat and the Implementation Committee under the Non-Compliance Procedure for the Montreal Protocol, and by other observers.

I. POLICY MATTERS RELATED TO THE KIGALI AMENDMENT

5. Pursuant to the adoption of the Kigali Amendment and related decision XXVIII/2 of the Twenty-Eighth Meeting of the Parties, the Executive Committee at its 77th meeting had discussed issues arising from the Amendment that were relevant to the Executive Committee.⁴ Those discussions led to the decision to hold a special four-day meeting, the 78th meeting, to address matters arising from decision XXVIII/2. The discussions continued at the 79th, 80th and 81st meetings.

6. In response to paragraph 11 of decision XXVIII/2, whereby the parties requested the Executive Committee to develop, within two years of the adoption of the Amendment, guidelines for the phase-down of HFC production and consumption and to report back to the parties, part I of the present report outlines the status of the discussions on the following matters related to the Kigali Amendment:

- Additional contributions to the Multilateral Fund
- Information on HFC consumption and production
- Enabling activities and institutional strengthening
- Draft cost guidelines for funding the phase-down of HFCs
- Key aspects related to HFC-23 by-product-control technologies

7. A list of documents considered and the decisions taken by the Executive Committee can be found in Annex I to the present report.

(i) Additional contributions to the Multilateral Fund

8. At its 77th meeting, the Executive Committee had accepted, with appreciation, the additional contributions to the Multilateral Fund announced by 17 non-Article 5 parties⁵ to provide fast-start support for implementation of the Kigali Amendment, noting that such funding was one-time in nature and would not replace donor contributions.

9. At the 81st meeting, the Treasurer reported⁶ that 16 non-Article 5 countries had paid their additional voluntary contributions to the Fund. Of the total contributions received amounting to US \$23,410,162,⁷ the Executive Committee had disbursed US \$23,104,300⁸ for activities related to HFC phase-down in Article 5 countries, consisting of: US \$15,145,850 for enabling activities in 109 countries; US \$321,000 for preparation of investment projects in eight countries; US \$7,537,450 for investment projects to phase out 476.6 metric tonnes (681,541 CO₂-equivalent tonnes) of HFCs in four Article 5 countries; and up to US \$100,000 for an evaluation, by an independent consultant, of cost-effective and environmentally sustainable options for the destruction of HFC-23 from HCFC-22 production facilities.

10. At the 81st meeting, the Executive Committee decided that requests for enabling activities for Article 5 group 1 countries submitted to that meeting would be funded from the balance of the additional voluntary contributions and that requests for funding for enabling activities submitted at future meetings for any Article 5 group 1 country that had not yet made such a request would be funded from the additional voluntary contributions to the extent possible, and from the regular contributions to the Multilateral Fund if no more funding was available from the additional voluntary contributions. The Committee also agreed that any balances from the additional voluntary contributions provided by the group of non-Article 5 countries remaining after funding enabling activities at the 81st meeting could be used to fund stand-alone HFC-related investment projects, in accordance with decision 79/45(d). Requests for

⁴ UNEP/OzL.Pro/ExCom/77/70/Rev.1

⁵ Australia, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland and the United States of America

⁶ UNEP/OzL.Pro/ExCom/81/5

⁷ At the 81st meeting, the Treasurer reported that the outstanding voluntary contribution by one Party was expected to be received soon after the closure of the meeting

⁸ Since the 80th meeting, the Executive Committee had approved US \$29,856,652 for HFC-related activities including US \$23,004,300 from additional voluntary contributions and US \$6,852,352 from regular contributions, consisting of: US \$17,178,850 for enabling activities in 119 countries; US \$321,000 for preparation of investment projects in eight countries; US \$12,356,802 for investment projects in six countries

funding for enabling activities submitted to the 81st and future meetings for any Article 5 group 2 country would be funded from the regular contributions to the Multilateral Fund (decision 81/31).

(ii) Information on HFC consumption and production

11. In response to paragraph 4 of decision XXVI/9,⁹ at its 74th and 75th meetings the Executive Committee had approved funding for the preparation of surveys of ODS alternatives in 127 Article 5 countries. In line with decision 74/53, the Secretariat had provided an overall analysis of the results of the surveys to the 80th meeting,¹⁰ which included information on ODS alternatives in 119 countries. In considering this report, the Executive Committee had requested bilateral and implementing agencies to use the findings and the lessons from the surveys when assisting Article 5 countries in implementing enabling activities, with particular attention to strengthening data collection and reporting on HFCs and HFC blends, which would assist countries in establishing their HFC baselines (decision 80/75).

(iii) Enabling activities-and institutional strengthening

12. At its 79th meeting, in considering paragraph 20 of decision XXVIII/2 on funding for enabling activities in relation to HFC phase-down, the Executive Committee had decided on the principles for the submission of requests for funding for enabling activities and on the maximum permissible funding level for such activities (decision 79/46). These included the requirements that the government concerned had to submit a letter indicating its intent to make best efforts to ratify the Kigali Amendment as early as possible, if it had not already done so, and that any submission should include a statement by both the government concerned and the relevant bilateral/implementing agency that implementation of the enabling activities would not delay implementation of HCFC phase-out projects.

13. The Executive Committee had also decided that funding for the preparation of national implementation plans to meet initial reduction obligations for the phase-down of HFCs could be provided, at the earliest, five years prior to those obligations once a country had ratified the Kigali Amendment, and on the basis of guidelines to be approved.

14. To date, the Executive Committee approved a total of US \$17,178,850 for enabling activities in 119 Article 5 countries. In particular, at the 80th meeting, the Executive Committee had approved US \$8,848,900 for the implementation of enabling activities for the phase-down of HFCs in 59 Article 5 countries. In addition, funding requests for enabling activities in 68 Article 5 countries had been included in the consolidated business plan of the Multilateral Fund for 2018–2020, which had been endorsed by the Committee at the 80th meeting.

15. At the 81st meeting, the Executive Committee decided on the funding sources for enabling activities for the phase-down of HFCs (see also *Additional contributions to the Multilateral Fund*, above) and approved a further US \$8,329,950 for implementation of enabling activities in an additional 60 Article 5 countries (decision 81/34).

16. The Executive Committee also discussed the 18-month project implementation period for enabling activities referred to in decision 79/46 and decided that, when approving enabling activities, it would maintain the 18-month implementation period but, if needed, it could extend that period by up to 12 months (totalling 30 months from project approval) if an official request for extension were received by the Secretariat (decision 81/32). By the same decision, the Committee requested bilateral and implementing agencies to submit a final report of the enabling activities completed within six months of the project completion date, highlighting lessons learned about how the fast-start activities supported early action on implementing the Kigali Amendment.

17. In considering paragraph 21 of decision XXVIII/2 on institutional strengthening, the Executive Committee had decided at its 78th meeting to consider increasing funding for institutional strengthening at a future meeting (decision 78/4).

(iv) Draft cost guidelines for funding the phase-down of HFCs

18. As mandated by decision XXVIII/2, the Executive Committee had decided to develop guidelines for funding the phase-down of HFC consumption and production for submission to the Thirtieth Meeting of the Parties in 2018,

⁹ To request the Executive Committee to consider providing additional funding to conduct inventories or surveys on alternatives to ozone-depleting substances in interested Article 5 parties upon their request

¹⁰ UNEP/OzL.Pro/ExCom/80/54 and Add.1, pursuant to decision 79/43

and to finalize the guidelines as soon as possible thereafter, taking into account the views and input provided by the Parties (decision 79/44).

19. At its 78th meeting¹¹, 79th meeting¹² and 80th meeting¹³, the Executive Committee had pursued its discussions on the development of the cost guidelines for the phase-down of HFCs in Article 5 countries as detailed below.

20. It had decided to include therein text related to the following elements of decision XXVIII/2, which were relevant to the work of the Executive Committee:

- Flexibility in implementation that enabled parties to select their own strategies and priorities in sectors and technologies, in line with paragraph 13 of decision XXVIII/2
- Cut-off dates for eligible capacity, in line with paragraph 17
- Second and third conversions, in line with paragraph 18
- Sustained aggregate reductions, in line with paragraph 19
- Categories of eligible incremental cost for the consumption manufacturing sector as per sub-paragraph 15(a)
- Categories of eligible incremental cost for the production sector as per sub-paragraph 15(b)
- Categories of eligible incremental cost for the refrigeration servicing sector as per sub-paragraph 15(c)
- Eligibility of Annex F substances subject to high-ambient-temperature exemptions, in line with paragraph 35

21. In addition to the text related to the above elements of decision XXVIII/2 that had been included in the cost guidelines for HFC phase-down, at the closure of the 80th meeting, the Executive Committee identified outstanding issues requiring further discussion in some of the elements relating to, *inter alia*: the methodology for determining the starting point for aggregate reductions and the metric to be used (CO₂ equivalent and/or metric tonnes); refrigeration servicing sectors; and levels of eligible incremental costs and cost-effectiveness thresholds in the different sectors. In order to inform its discussion on the refrigeration servicing sector, the Executive Committee requested the Secretariat to prepare a preliminary document for the 82nd meeting, in cooperation with bilateral and implementing agencies, on all aspects related to the refrigeration servicing sector that support the HFC phase-down. In addition, the following elements of decision XXVIII/2 had remained under discussion:

- Energy efficiency, in line with paragraph 22
- Capacity building to address safety, in line with paragraph 23
- Disposal, in line with paragraph 24

22. At the 81st meeting, the Executive Committee continued its deliberations.¹⁴ In addition to the draft template of the cost guidelines for the phase-down of HFCs in Article 5 countries agreed by the Executive Committee and the outstanding issues for further discussion, the document before the Executive Committee contained the text of a proposed decision related to energy efficiency submitted by the Government of Austria at the 80th meeting.

23. At the closure of its discussions at the 81st meeting, the Executive Committee decided that it would continue to use the draft template of the cost guidelines for the phase-down of HFCs and the list of outstanding elements for further discussion, contained in Annexes II and III, respectively, to the present report, as the working documents for discussions, at the 82nd and future meetings, on the development of cost guidelines for the phase-down of HFCs in Article 5 countries, noting that additional elements could be added as required. It requested the Secretariat to provide to the 82nd meeting the summary of the parties' deliberations at the 40th Meeting of the Open-Ended Working Group of the Parties to the Montreal Protocol and the Thirtieth Meeting of the Parties to the Montreal Protocol in relation to the report by the Technology and Economic Assessment Panel on issues related to energy efficiency in response to decision XXIX/10.

24. The Committee agreed that at the 82nd meeting it would also consider: the matter of prioritization of technical assistance and capacity building to address safety issues associated with alternatives with low and zero global-warming

¹¹ UNEP/OzL.Pro/ExCom/78/5 and Corr.1

¹² UNEP/OzL.Pro/ExCom/79/46, pursuant to decision 78/3

¹³ UNEP/OzL.Pro/ExCom/80/55, pursuant to decision 79/44

¹⁴ UNEP/OzL.Pro/ExCom/81/53, pursuant to decision 80/76

potential (GWP) for all sectors, in light of the paper being prepared by the Secretariat in response to decision 80/76 regarding aspects of refrigeration servicing sector that supported HFC phase-down; and issues related to funding the cost-effective management of stockpiles of used or unwanted controlled substances, including through destruction, in light of the paper on ODS disposal being prepared by the Secretariat for that meeting in response to decision 79/18(e).

25. For the same meeting, the Secretariat was requested to prepare a preliminary information document containing key considerations that could assist the Executive Committee in developing a methodology for establishing the starting point for sustained aggregate reductions under the Kigali Amendment for the consumption and production sectors, taking into account the discussions that had taken place at the 81st meeting (decision 81/67).

Ongoing activities with regard to the consumption manufacturing sector

26. With regard to the eligible incremental costs for the consumption manufacturing sector, further to agreeing on the categories of eligible incremental costs proposed in decision XXVIII/2, the Executive Committee discussed cost-effectiveness thresholds. While application of the cost-effectiveness thresholds for the phase-out of CFCs and HCFCs would simplify the discussions on the cost guidelines for the phase-down of HFCs, the same thresholds were not necessarily applicable for HFCs. Moreover, there was limited experience at the Fund in phasing out HFCs in certain sectors, and the associated incremental costs may differ from the costs associated with phasing out other controlled substances. Accordingly, the Executive Committee had considered that additional information was required to enable it to reach a decision on eligible incremental costs, and that it was necessary to gain experience in the incremental capital costs and incremental operating costs associated with phasing down HFCs. Accordingly, it had agreed, in decisions 78/3 and 79/45, to consider approving a limited number of stand-alone HFC investment projects, to be considered on a case-by-case basis in terms of technology maturity, replicability and geographic distribution. Relevant project completion reports should include detailed information on the eligible incremental costs, any possible savings incurred and relevant factors that facilitated their implementation.

27. The Executive Committee had also decided that, as a prerequisite for approval, together with the submission of a request for funding for HFC investment projects, the government concerned had to include a letter indicating its intent to make best efforts to ratify the Kigali Amendment as early as possible, if it had not already done so, that no further funding would be made available until the government concerned had deposited the instrument of ratification at the Headquarters of the United Nations, and that any amount of HFC reduced as a result of the project would be deducted from the starting point for aggregate reduction in HFC consumption.

28. At the 80th meeting, the Executive Committee had approved US \$3,350,823 for implementation of an investment project to phase out 230.6 metric tonnes (329,801 CO₂-equivalent tonnes) of HFCs in one Article 5 country in the domestic refrigeration sector and eight requests for funding for the preparation of stand-alone HFC investment projects.

29. An additional 13 project proposals¹⁵ were submitted to the 81st meeting. At that meeting, the Executive Committee further approved US \$32,100 for the preparation of one stand-alone HFC investment project in the foam sector¹⁶ (decision 81/37) and implementation of six investment projects to phase out 606.82 metric tonnes (1,009,563 CO₂ equivalent tonnes) of HFCs in the domestic and commercial refrigeration and air-conditioning sectors in five Article 5 countries¹⁷ (decisions 81/54, 81/57, 81/62, 81/63, 81/64 and 81/65), reiterating the pre-requisites in decision 78/3, and on the understanding that the project would be completed within 24 months of the transfer of funds to the implementing agency and that a comprehensive completion report would be submitted within six months of the project completion, with detailed information on: the eligible incremental capital costs for all equipment and other components, including those not funded under the project; incremental operating costs; any possible savings incurred during the conversion and relevant factors that facilitated implementation (e.g. whether any purchased and/or installed equipment or supplies had gone through a competitive quote/bidding process and the details thereof); changes in the energy efficiency of the products being manufactured and any related policies undertaken by the Government; information on the implementation of the servicing component where applicable.

¹⁵ Proposals were submitted by the Governments of Argentina, China, Colombia, the Dominican Republic, Ecuador (x 2), Egypt, the Islamic Republic of Iran, Jordan, Lebanon, Mexico (x 2) and Zimbabwe

¹⁶ China, submitted by UNIDO in its work programme (UNEP/OzL.Pro/ExCom/81/18)

¹⁷ Argentina (UNEP/OzL.Pro/ExCom/81/22 and Corr.1), Dominican Republic (UNEP/OzL.Pro/ExCom/81/31), Jordan (UNEP/OzL.Pro/ExCom/81/40), Lebanon (UNEP/OzL.Pro/ExCom/81/42) and Mexico (x 2) (UNEP/OzL.Pro/ExCom/81/45)

30. The Executive Committee also reiterated decision 79/45, confirming that submitted HFC investment projects should have broad replicability within the country, region or sector, and should take into account geographic distribution. It invited bilateral and implementing agencies to prepare and present project proposals for conversion to alternatives to HFCs and promotion of new technologies, for submission during the period up to and including the 84th meeting, especially in sectors and regions that were not covered by projects that had been approved in the period up to and including the 81st meeting. It also permitted the resubmission, in accordance with the criteria of broad replicability within the country, region or sector, and taking into account geographic distribution, of the projects about which concerns had been expressed at the 81st meeting, but only if those specific concerns had been addressed (decision 81/53).

Ongoing activities with regard to the refrigeration servicing sector

31. With regard to the refrigeration servicing sector, further to agreeing on the categories of eligible incremental cost proposed in decision XXVIII/2, and pursuant to sub-paragraph 15(c) and paragraph 16 of decision XXVIII/2, at its 80th meeting the Executive Committee had requested the Secretariat to prepare, in cooperation with bilateral and implementing agencies, a preliminary document on all aspects relating to the sector that supported HFC phase-down, for submission to the 82nd meeting. The document needed, *inter alia*, to take into account previous policy documents, case studies, monitoring and evaluation reviews, and the work undertaken in developing and implementing training and technical assistance programmes. It was to contain analysis of the existing capacities in Article 5 countries that had had funding approved for the refrigeration servicing sector and how those capacities could be utilized for HFC phase-down. The document was also to include the minimum information needed for the development of training and competency-based certification programmes and modules for service technicians and customs officers for the transition to alternatives (decision 80/76).

(v) Key aspects related to HFC-23 by-product-control technologies

32. At its 78th meeting,¹⁸ 79th meeting¹⁹ and 80th meeting,²⁰ the Executive Committee had considered documents on the key aspects related to HFC-23 by-product-control technologies. At the 81st meeting, it considered a document²¹ that followed up on decisions 78/5(e), 79/17(b), 79/47(e) and 80/77(b).

33. Having considered the conclusions of the evaluation of cost-effective and environmentally sustainable options of HFC-23 destruction from HCFC-22 production facilities, prepared by an independent consultant, the Committee requested the Secretariat to contract an independent consultant to prepare a report for the 82nd meeting, providing information on: options and all costs and savings related to the control of HFC-23 by-product emissions in Argentina, based on the quantities of HCFC-22 and HFC-23 produced at the plant and information included in relevant past reports to the Executive Committee, including the option of shipping HFC-23 for off-site destruction; estimates of fugitive emissions and options for monitoring, leak detection and control of HFC-23 by-product at the plant; and the costs, technical feasibility, and logistical, legal and transaction issues associated with shipping HFC-23 for off-site destruction by means of a technology such as the Fluor process²². The Government of Argentina was requested to provide, on a voluntary basis, relevant information for the report. The Secretariat was also requested to prepare, for the 82nd meeting, a document, based on document UNEP/OzL.Pro/ExCom/79/48, on cost-effective options for controlling HFC-23 by-product emissions, including information relevant to the cost of closure of HCFC-22 production swing plants, and options for monitoring, in light of the report by the consultant submitted to the 81st meeting and other relevant reports (decision 81/68). In addition, at the 79th meeting, the Executive Committee invited implementing agencies to submit to the 81st meeting project proposals for feasible technology demonstration for HFC-23 by-product mitigation or conversion technologies with the potential for cost-effective, environmentally sustainable conversion of HFC-23.

II. OTHER POLICY MATTERS

34. The preparation and implementation of HPMPs and an HCFC production phase-out management plan (HPPMP) continued to be a main focus of the work at the 81st meeting. The HPMPs and HPPMP approved so far are

¹⁸ UNEP/OzL.Pro/ExCom/78/9 and Corr.1

¹⁹ UNEP/OzL.Pro/ExCom/79/48, Corr.1, Corr.2 and Add.1, pursuant to decision 78/5

²⁰ UNEP/OzL.Pro/ExCom/80/56 and Add.1, pursuant to decision 79/47

²¹ UNEP/OzL.Pro/ExCom/81/54

²² As described in document UNEP/OzL.Pro/ExCom/81/54

listed in Annex IV to the present report; the only country for which stage I of the HPMP has yet to be approved is for the Syrian Arab Republic.

(i) Outstanding project completion reports (PCRs) for stage I of an HPMP with stage II ongoing

35. The Executive Committee decided that funding requests for the second or subsequent tranches of stage II or for subsequent stages of the HCFC phase-out management plan submitted for consideration by the Committee would not be considered if there was an outstanding PCR from the previously completed stage that had not been submitted to the Secretariat at least six weeks in advance of the meeting to which the tranche request was being submitted (decision 81/29).

(ii) Deadline for the submission of projects

36. The Executive Committee decided to extend the relevant submissions deadlines for project proposals and projects with specific reporting requirements (decision 81/30). The changes would be applicable as of the 82nd meeting, on the understanding that, at that meeting only, flexibility would be shown to bilateral and implementing agencies that were unable to submit specific project proposals or projects with specific reporting requirements in accordance with the stipulated deadlines. According to the revised submission deadlines: new stages of multi-year agreements were to be submitted to the Secretariat, in full, at least 16 weeks in advance of the Executive Committee meeting at which they were to be considered; stand-alone HFC investment projects were to be submitted, in full, at least 14 weeks in advance of the Executive Committee meeting at which they were to be considered, irrespective of the level of funding requested from the Multilateral Fund; project proposals in which the total cost of the project was more than US \$5 million, including agency support costs, irrespective of the level of funding requested from the Multilateral Fund, were to be submitted, in full, at least 12 weeks in advance of the Executive Committee meeting at which they were to be considered; project proposals in which the total cost of the project was less than US \$5 million, including agency support costs, were to be submitted, in full, at least 10 weeks in advance of the Executive Committee meeting at which they were to be considered; work programmes and amendments, including institutional strengthening renewal requests, were to be submitted, in full, at least 8 weeks in advance of the Executive Committee meeting at which they were to be considered; reports on projects with implementation delays, projects for which an additional status report was required and projects with outstanding issues were to be submitted, in full, at least 8 weeks in advance of the Executive Committee meeting at which they were to be considered; and all other projects with specific reporting requirements were to be submitted, in full, at least 10 weeks in advance of the Executive Committee meeting at which they were to be considered.

37. The Executive Committee encouraged bilateral and implementing agencies to submit projects in advance of the applicable deadlines and agreed to review the new submission deadlines at the last meeting of the Executive Committee in 2019.

(iii) Sub-group on the Production Sector

38. The Sub-group on the Production Sector met in the margins of the 81st meeting, continued deliberating on a number of matters and produced a report.²³

39. The Sub-group considered the stage II of the HPPMP for China, which had been revised on the basis of the discussions held since the 79th meeting and resubmitted. The Sub-group also discussed, but did not reach full agreement on, the issues of monitoring and verification and the draft HCFC production sector guidelines.

Stage II of the HPPMP for China

40. On the basis of the recommendations of the Sub-group on the Production Sector, the Executive Committee noted that the revised proposal submitted by the World Bank addressed several of the issues that had been raised with regard to the previous proposals submitted to the 79th and 80th meetings, but that other relevant issues, including the calculation of the lost profit, the distribution of funding across tranches, the duration of stage II and subsequent stages, including the 2030–2040 tail-end, and the funding requirements for technical assistance activities and the project management unit, had not been fully addressed. The Sub-group on the Production sector was consequently unable to recommend consideration of the proposal by the Executive Committee.

²³ UNEP/OzL.Pro/ExCom/81/57

41. Nevertheless, the Committee noted that the Government of China had complied fully with all the conditions set out in its Agreement with the Executive Committee in relation to the reduction in HCFC production in accordance with stage I of the HPPMP and that, as at March 2018, 94.2 per cent of the total funding approved for stage I of the HPPMP had been disbursed to the final beneficiaries. Acknowledging that immediate funding for the production reduction and/or closure of eligible HCFC production lines would assist the Government of China in moving towards compliance with its 2020 obligations under the Montreal Protocol, the Executive Committee approved, on an exceptional basis, and without setting a precedent with regard to the overall level of funding of stage II of the HPPMP and the funding tranches therein, the sum of US \$23,000,000, plus agency support costs of US \$1,288,000 for the World Bank, which would be deducted from the future funding provided for stage II of the HPPMP (decision 81/71).

42. This decision was taken on the understanding that the Government of China agreed that the maximum allowable level of production of HCFCs for 2018 would be 22,742 ODP tonnes, and the amount of funding provided could be reduced by US \$1.73 per kg per year of production beyond the above-mentioned level. The Government of China would also have to organize bidding in relation to production closure or quota reduction to reduce 1,188 ODP tonnes of HCFC production in 2018, issue the quota at the reduced level for 2018, and begin to address the sustainability of the phase-out of HCFC production in relation to the environment impact assessment. Furthermore, it had to: provide specific technical assistance to support enterprise-level activities, including continued monitoring and verification of each compensated production line; ensure that any compensated plant would not redirect any phased-out HCFC production capacity towards feedstock use, subject to a penalty of US \$0.15 per kg of redirected production per year; coordinate with its stakeholders and authorities to make best efforts to manage HCFC production and associated by-product production in HCFC plants, in accordance with best practices to minimize associated climate impacts; optimize the implementation of the activities in 2018 in order to minimize environmental and climate impacts as much as possible, including by giving priority to HCFC production closure to achieve the HCFC reduction targets set out in decision XIX/6 of the Twenty-Ninth Meeting of the Parties; and ensure that any funds in possession of the Foreign Economic Cooperation Office of the Ministry of Environmental Protection of China would return a reasonable rate of accrued interest and that any interest would be offset against stage II of the HPPMP.

43. Otherwise, the Committee decided to defer consideration of stage II of the HPPMP and to invite submission of a revised proposal to its 83rd meeting pursuant to the discussions at the 82nd meeting on issues remaining to be addressed.

(iv) Implications for Multilateral Fund institutions in terms of expected workload in the coming years, including in relation to the Kigali Amendment for the phase-down of HFCs

44. The Executive Committee considered the implications for Multilateral Fund institutions in terms of expected workload in the coming years, including in relation to Kigali Amendment for the phase-down of HFCs, pursuant to decision 80/34/(f).²⁴ It requested the Secretariat to submit to the 84th meeting an analysis, conducted in consultation with the bilateral and implementing agencies, of the implications of parallel versus integrated implementation of HCFC phase-out and HFC phase-down activities, taking into account, *inter alia*, resource availability and cost-effectiveness and the capacity of Fund institutions and Article 5 countries, especially national ozone units and programme management units; and to take into account in the analysis relevant partnerships and the engagement of Fund institutions with other institutions, particularly in HFC phase-down activities, supported by the Multilateral Fund, in line with the Kigali Amendment (decision 81/69).

(v) Global emissions of CFC-11

45. At the 81st meeting, one Committee member, under the agenda item “Other matters”, expressed concern at the unexpected and persistent increase in global emissions of the CFC-11, as described in a scientific study published in the journal *Nature* on 16 May 2018, despite the reported elimination of CFC-11 production under the Montreal Protocol. The Executive Committee therefore requested the Fund Secretariat to provide relevant information, as necessary, to the Ozone Secretariat, in accordance with the guidelines, procedures, policies and decisions of the Multilateral Fund and the Montreal Protocol (decision 81/72).

²⁴ UNEP/OzL.Pro/ExCom/81/55

III. PROJECTS, THEIR IMPLEMENTATION AND MONITORING

(i) Fund achievement since inception

46. At the time of writing, since 1991, 8,058 projects and activities (excluding cancelled and transferred projects) had been approved. Even though 467,300 ODP tonnes of ODS would be eliminated once all these projects had been implemented, a total of 488,910 ODP tonnes of ODS had already been phased out (including consumption and production). The geographical and sectoral distribution of phase-out in all approved projects and activities and funds approved since inception is shown in the table below:

	Number of projects	Consumption ODP tonnes approved*	Consumption ODP tonnes phased out*	Production ODP tonnes approved*	Production ODP tonnes phased out*	Funds approved* (US \$)
Region						
Africa	1,968	22,493	21,725	0	0	316,811,206
Asia and Pacific	3,251	206,968	215,546	168,970	184,239	2,296,561,485
Europe	501	8,914	8,919	175	175	111,963,322
Latin America and Caribbean	2,015	40,005	38,531	19,775	19,775	587,127,817
Global	323	0	0	0	0	266,088,344
Sector						
Aerosol	203	27,808	27,606	0	0	93,173,553
Destruction	37	45	45	0	0	11,951,021
Fire fighting	1	0	0	0	0	53,500
Foam	1,299	68,890	69,759	0	0	444,887,068
Fumigant	378	8,370	8,438	0	0	136,459,997
Halon	148	38,111	46,559	30,381	41,958	90,974,014
Multi-sector	8	670	455	0	0	2,772,673
Other	11	1,530	1,574	0	0	17,381,709
Process agent	39	19,573	19,573	52,162	52,162	130,286,738
Phase-out plan	1,868	52,166	50,953	11,266	10,988	1,006,038,516
Production	74	0	0	95,111	99,081	476,092,769
Refrigeration	1,644	53,097	51,667	0	0	606,157,668
Severall	2,125	753	714	0	0	452,342,047
Solvent	219	7,313	7,320	0	0	108,776,432
Sterilant	4	55	60	0	0	1,204,469
Total	8,058	278,379	284,721	188,920	204,189	3,578,552,175

* Excluding cancelled and transferred projects and including agency support costs, where applicable.

47. The total funds approved by the Executive Committee since 1991 in order to achieve ODS phase-out amounted to US \$3,578,552,175 including US \$364,397,981 in agency support costs (excluding cancelled and transferred projects). Of the total project funds approved, the amounts allocated to, and disbursed by, each of the bilateral and implementing agencies, are indicated in the table below:

Agency	Funds approved* (US \$)	Agency support costs* (US \$)	Funds disbursed** (US \$)
Bilateral	152,643,939	14,437,899	145,989,014
UNDP	787,735,214	105,868,980	759,716,767
UNEP	302,422,069	25,386,934	252,297,869
UNIDO	813,734,314	103,697,113	749,776,366
World Bank	1,157,618,658	115,007,056	1,188,891,092
Total	3,214,154,194	364,397,981	3,096,671,108

* As at 16 August 2018 (excluding cancelled and transferred projects)

** As at 31 December 2016 (excluding cancelled and transferred projects)

(ii) Projects and activities approved during the reporting period

48. During the reporting period, the Executive Committee approved a total of 116 additional projects and activities, with a planned phase-out of 1,175.7 ODP tonnes of production and consumption of HCFCs and 321 metric tonnes of HFCs, amounting to US \$73,930,598, including US \$4,860,111 in agency support costs as per the table below:

Agency	Funds approved (US \$)	Agency support costs (US \$)	Total (US \$)
Bilateral	2,590,901	303,411	2,894,312
UNDP	12,523,060	998,444	13,521,504
UNEP	7,801,405	597,305	8,398,710
UNIDO	21,878,572	1,583,593	23,462,165
World Bank	24,276,549	1,377,358	25,653,907
Total	69,070,487	4,860,111	73,930,598

Investment projects

49. Of the total funds approved in the period under review, the Executive Committee allocated US \$24,288,000, including US \$1,288,000 in agency support costs, for the implementation of an investment project for the HCFC production phase-out management plan in China.

HPMPs and HPPMPs

50. During the reporting period, the Executive Committee approved tranches of stage I and stage II of HPMPs for 23 countries (Albania, Benin, Bolivia (Plurinational State of), Burundi, Cape Verde, Chile, China (refrigeration servicing and room air-conditioner manufacturing sector plans), Colombia, Georgia, Ghana, Guatemala, Honduras, Indonesia, Kyrgyzstan, Lebanon, Madagascar, Malawi, Mexico, Nicaragua, Sao Tome and Principe, Suriname, Trinidad and Tobago and Zambia); first tranches of stage II of HPMPs for two countries (Bangladesh and Nigeria) and a foam investment project under stage I of the HPMP for one country (Ecuador) (decisions 81/41 to 81/44 and 81/47 to 81/52).

51. Commitments in principle associated with stages I and II of HPMPs approved since the inception of the Fund totalled US \$1.46 billion, including agency support costs.

HFC-related projects

52. In accordance with decision 81/31 on the source of funding for HFC-related projects (see *Additional contributions to the Multilateral Fund, under Policy matters related to the Kigali Amendment*, above), at the 81st meeting the Executive Committee approved six stand-alone HFC investment projects (decisions 81/54, 81/57, 81/62, 81/63, 81/64 and 81/65) and 15 projects for enabling activities (decision 81/34), amounting, all together, to US \$6,852,352, including agency support costs (see *Ongoing activities with regard to the consumption manufacturing sector under Draft cost guidelines for funding the phase-down of HFCs*, above).

Non-investment activities

53. The 2018 work programmes of UNDP,²⁵ UNEP,²⁶ UNIDO²⁷ and the World Bank²⁸ were considered at the 81st meeting. The requests for institutional strengthening renewal projects, project preparation for stage II of HPMPs and technical assistance for enabling activities were approved as part of the list of projects submitted for blanket approval (decision 81/34). In addition, the Committee approved a request for project preparation for the conversion from HFC-134a to HFOs and CO₂ with gluing technology in an extruded polystyrene foam manufacturer (decisions 81/37).

54. The Executive Committee also requested relevant bilateral and implementing agencies to include in their amendments to their respective work programmes, due for submission to the 82nd meeting, funding, in the amount of US \$30,000, plus agency support costs, for verification reports for stage I of the HPMPs for the following 16 Article 5 countries: Albania, the Bahamas, Cuba, Fiji, the Gambia, the Lao People's Democratic Republic, Madagascar, Malawi, Mongolia, the Niger, Saint Lucia, Sao Tome and Principe, Serbia, Sri Lanka, Turkmenistan and Uganda (decision 81/33).

²⁵ UNEP/OzL.Pro/ExCom/81/16

²⁶ UNEP/OzL.Pro/ExCom/81/17

²⁷ UNEP/OzL.Pro/ExCom/81/18

²⁸ UNEP/OzL.Pro/ExCom/81/19

(iii) Country programme data and prospects for compliance

55. At the 81st meeting, the Executive Committee considered the documents on country programme (CP) data and prospects for compliance.²⁹ It noted with concern that one country had yet to submit 2016 country programme data, but that 90 country programme reports had been received for the year 2017, 84 of them submitted using the web-based system. Bilateral and implementing agencies were requested to assist Article 5 countries in addressing discrepancies between CP and Article 7 data reports, and the Secretariat was requested to send letters to the governments of countries with outstanding CP data reports for the years 2014, 2015 and 2016, urging them to submit the reports immediately. Furthermore, pursuant to sub-paragraph (d) of decision 76/7 (May 2016), whereby the Executive Committee decided to consider revising the country programme data report format at a future meeting, on the basis of the outcome of the surveys of ODS alternatives and the discussions on the proposed HFC-related amendment, the Secretariat was requested to prepare a draft of a revised country programme data reporting format, incorporating Annex F substances, for consideration by the Executive Committee at its 83rd meeting, taking into account the revised forms for reporting data under Article 7 of the Montreal Protocol to be considered by the Thirtieth Meeting of the Parties (decision 81/4).

(iv) Evaluation

56. At the 81st meeting, the Executive Committee took note of the preliminary report on the second phase of the evaluation of the refrigeration servicing sector³⁰ and requested the Senior Monitoring and Evaluation Officer to submit the final report of the evaluation of the refrigeration servicing sector to the 82nd meeting, in line with decision 80/8 (decision 81/5).

57. The Executive Committee also approved the terms of reference for a desk study for the evaluation of HCFC phase-out management plan preparation activities to assist with the implementation of the Kigali Amendment³¹ (decision 81/6).

58. Furthermore, the Executive Committee noted a desk study for the evaluation of gender mainstreaming in Montreal Protocol projects and policy³² and invited bilateral and implementing agencies to take into account the information therein. The agencies were also requested to apply their own institutions' gender policies to the projects and activities approved under the Multilateral Fund, when relevant. The Executive Committee requested UNEP to inform national ozone units, through regional network meetings, of the discussions on gender mainstreaming and the decision taken at the meeting and to seek their input with regard to a potential gender policy for the Multilateral Fund. The Secretariat was then requested to prepare a discussion document for the 83rd meeting, outlining possible objectives and elements of a potential gender policy for the Multilateral Fund, taking into account the policies of the bilateral and implementing agencies, the input received from the national ozone units via the agencies, and other relevant information (decision 81/7).

(v) Tranche submission delays

59. At the 81st meeting, the Executive Committee considered the report on tranche submission delays,³³ noting that 44 of the 87 activities related to tranches of HPMPs due for submission had been submitted on time and that the implementing agencies had indicated that the late submission of the tranches of HPMPs would have no impact or was unlikely to have an impact on compliance and that there was no indication that any of the countries concerned were in non-compliance with the Montreal Protocol control measures. The Secretariat was requested to send letters to the governments concerned to communicate the Committee's decisions with regard to the tranche submission delays (decision 81/27).

(vi) Status reports and reports on projects with specific requirements

60. At the 81st meeting, the Executive Committee considered a document on status reports and reports on projects with specific reporting requirements.³⁴ These related to: the HPMPs for Brazil, Chile, China, Cuba, Indonesia, the Islamic Republic of Iran, Kenya and Viet Nam; demonstration projects for low-GWP alternatives to HCFCs and

²⁹ UNEP/OzL.Pro/ExCom/81/6 and Corr.1

³⁰ UNEP/OzL.Pro/ExCom/81/7

³¹ UNEP/OzL.Pro/ExCom/81/8/Rev.1

³² UNEP/OzL.Pro/ExCom/81/9

³³ UNEP/OzL.Pro/ExCom/81/13

³⁴ UNEP/OzL.Pro/ExCom/81/10 and Corr.1

feasibility studies for district cooling; the phase-out of consumption and production of carbon tetrachloride (CTC) in India; ODS waste disposal projects; and ongoing chillers projects.

61. The Committee took note of the reports and requested a number of actions from countries, bilateral and implementing agencies and the Secretariat (decisions 81/8 to 81/24).

62. For example, with regard to HPMPs, it requested the Government of France to provide a report on expenditure relating to the project management unit activities of stage I of the HPMP for Kenya when submitting the request for the second tranche of stage II and, on an exceptional basis, to include information about the project management unit expenditure as input for the report on project management units to be prepared by the Secretariat, in line with decision 79/41, for submission to the 82nd meeting. The Government of Chile, UNDP and UNEP were requested to submit the project completion report for stage I of the HPMP to the last meeting of the Executive Committee in 2018, in line with decision 76/45(b); and UNEP was requested to return the balance of US \$22,742, plus agency support cost of US \$2,956, remaining from that HPMP to the same meeting. UNDP was requested to continue assisting the Governments of Brazil and Cuba in securing the supply of low-GWP alternative technologies and to provide reports on the respective conversions to each Executive Committee meeting until the technology originally selected or another low-GWP technology had been fully introduced. Those reports were to include updates from the suppliers on the progress made towards ensuring that the selected technologies, including associated components, were available on a commercial basis in the country. UNDP was also asked to provide a report on the status of the conversion of the refrigeration and air-conditioning technology enterprises in Indonesia to each meeting until they were manufacturing equipment based on the agreed alternative technology; and to provide, to the 82nd meeting, a status report on the use of methyl formate and the alternative blowing agent being used, in the enterprise being assisted by the Multilateral Fund in Trinidad and Tobago.

63. In relation to demonstration projects and feasibility studies, the Committee invited bilateral and implementing agencies, when assisting Article 5 countries in preparing similar projects, to take into account the reports of: the project to demonstrate R-290 (propane) as an alternative refrigerant to HCFC-22 in commercial air-conditioning manufacturing at Industrias Thermotar Ltda in Colombia; the demonstration project to validate the use of HFOs for discontinuous panels in Article 5 Parties through the development of cost-effective formulations, implemented in Colombia; the project to demonstrate the application of an ammonia/carbon-dioxide refrigeration system in place of HCFC-22 for the medium-sized producer and retail store at Premezclas Industriales S.A. in Costa Rica; the project to demonstrate HCFC-free, low-GWP alternatives for refrigeration systems in the fisheries sector in Maldives; and the project to demonstrate the technical and economic advantages of vacuum-assisted injection in a discontinuous panel plant retrofitted from HCFC-141b to pentane, implemented in South Africa. The Secretariat was requested to continue to make available through the Multilateral Fund website the outcome of the demonstration projects implemented to date and the Committee decided to share the results of the demonstration projects further, through dedicated communication products such as project fact sheets.

64. On the basis of the aforementioned demonstration project in Maldives, the Government and UNDP were requested to include in the progress report on implementation of stage I of the HCFC phase-out management plan for the country, detailed information on the activities undertaken when retrofitting the HCFC-22-based refrigeration systems in three fishing vessels with the alternative refrigerant selected and on the status of conversion of the HCFC-22-based refrigeration systems in fishing vessels in Maldives, and UNDP was requested to continue exploring other low-GWP alternatives for the fisheries sector in Maldives.

65. Bilateral and implementing agencies were also invited to take into account, when appropriate, the lessons learned from the pilot ODS waste management and disposal projects in China, Colombia, Nigeria and Turkey in the design and implementation of similar projects in future, and UNIDO was requested to return, to the 82nd meeting, unspent balances from the ODS disposal project for Lebanon.

66. In terms of the phase-out of CTC consumption and production in India, the Secretariat was requested to submit to the 82nd meeting a document on the use by India of CTC for feedstock applications, based on the report submitted by UNDP on behalf of the Government of India, and the World Bank, together with the Governments of France, Germany and Japan, and UNDP and UNIDO as cooperating implementing agencies, were asked to submit to the 82nd meeting the related project completion report.

(vii) Project completion reports

67. At the 81st meeting, the Executive Committee noted the consolidated PCRs for the year 2018.³⁵ It urged: bilateral and implementing agencies to submit to the 82nd meeting the PCRs for multi-year agreements and individual projects that were due, or, if they were not going to submit them, to provide the reasons and the new schedule for submission; lead and cooperating implementing agencies to coordinate closely when finalizing their portions of the PCRs to allow the lead implementing agency to submit completed PCRs according to schedule; and bilateral and implementing agencies to enter thorough and thoughtful lessons when submitting their PCRs. The Committee also invited all those involved in the preparation and implementation of multi-year agreements and individual projects to take into consideration the lessons learned from PCRs when preparing and implementing future projects (decision 81/25).

(viii) Agency support costs and revision of the Agreement for stage II of the HPMP for China

68. The Executive Committee considered the issues of the level of agency support costs for UNDP, UNIDO and the World Bank associated with the second and subsequent tranches of the relevant sector plans of stage II of the HPMP and the potential need to revise the Agreement for stage II of the HPMP for China.³⁶ It decided to adjust to seven per cent the agency support costs associated with the second and future tranches of all sector plans of stage II of the HPMP for China for UNDP, UNIDO and the World Bank and to approve additional agency support costs for UNIDO for the second tranche of the extruded polystyrene foam sector plan and for UNDP for the second tranches of the industrial and commercial refrigeration and solvent sector plans, which had all been approved at the 80th meeting. The Agreement between the Government of China and the Executive Committee for the implementation of stage II of the HPMP would be revised at the 82nd meeting (decision 81/45).

(ix) Financial reporting format for annual project-management unit expenditures for the HPMP and HPPMP for China

69. Pursuant to decision 80/80, the Committee considered information relating to the project management unit for HCFC phase-out activities in China, in the context of stages I and II of the HPMP and stage I of the HPPMP, and the draft financial reporting format for annual project management unit expenditure.³⁷ The Executive Committee decided upon the financial reporting format that UNDP, in cooperation with the sector lead implementing agencies, had to use for the PMU expenditures in their annual tranche progress reports, starting in 2019 and asked the implementing agencies to consider whether there was a need to amend their respective agreements with the Government of China with a view to ensuring that the financial reporting on PMU expenditures was sufficiently detailed to satisfy the requirements of their respective financial reporting to the Executive Committee (decision 81/46).

(x) Funding withheld pending submission of verification reports or meeting specific conditions

70. The Executive Committee requested UNEP and UNIDO to continue assisting the Government of Saudi Arabia in meeting in full the conditions specified in Appendix 8-A of its Agreement with the Executive Committee, so that the country could submit a request for the sum of US \$966,254 from the fourth tranche of stage I of the HCFC phase-out management plan for the country that had been returned, in accordance with decision 77/54(f), to the Multilateral Fund at the 81st meeting (decision 81/28).

IV. BUSINESS PLANNING, FINANCIAL AND ADMINISTRATIVE MATTERS**(i) Status of contributions and disbursements**

71. As at 22 June 2018, the total income to the Multilateral Fund, including cash payments, promissory notes held, bilateral contributions, interest earned and miscellaneous income, amounted to US \$3,820,960,392, and total allocations, including provisions, amounted to US \$3,703,892,047. The balance available at 22 June 2018 therefore amounted to US \$117,068,345.

³⁵ UNEP/OzL.Pro/ExCom/81/11 and Corr.1

³⁶ UNEP/OzL.Pro/ExCom/81/29

³⁷ UNEP/OzL.Pro/ExCom/81/29

72. The yearly distribution of contributions against pledges is shown in the table below:

Year	Pledged contributions (US \$)	Total payments(US \$)	Arrears/outstanding pledges (US\$)
1991-1993	235,029,241	210,977,289	24,051,952
1994-1996	424,841,347	393,465,069	31,376,278
1997-1999	472,567,009	439,803,048	32,763,961
2000-2002	440,263,109	429,283,071	10,980,038
2003-2005	474,167,042	465,570,282	8,596,760
2006-2008	368,153,731	358,897,322	9,256,410
2009-2011	399,781,507	390,829,711	8,951,796
2012-2014	397,073,537	388,089,364	8,984,173
2015-2017	436,198,530	427,818,627	8,379,903
2018	166,666,666	75,233,806	91,432,860
Total	3,814,741,719	3,579,967,588	234,774,131

Note: Not including any disputed contributions of US \$45,755,081.

73. As mentioned in paragraph 9 above, the total income received from the additional pledged contributions amounted to US \$23,410,162.

Interest collected during the 2015–2017

74. As at 22 June 2018, the total level of interest recorded in the Treasurer's accounts amounted to US \$7,452,756 for the 2015–2017 triennium.

Fixed-exchange-rate mechanism (FERM)

75. As at 22 June 2018, the cumulative loss from exchange differences since the inception of the FERM stood at US \$34,552,223.

Outstanding contributions and return of balances

76. At the 81st meeting, the Executive Committee urged all parties to pay their contributions to the Multilateral Fund in full and as early as possible and requested the Chief Officer and Treasurer to follow up with countries that had contributions outstanding for one triennium or more and to report back to the Committee at the 82nd meeting (decision 81/1).

77. The Executive Committee noted the return of funds to the 81st meeting and requested: UNEP and UNIDO to return balances from projects approved over two years previously; bilateral and implementing agencies to disburse or cancel commitments not needed for completed projects and projects completed "by decision of the Executive Committee" so that the balances could be returned to the Fund; and the Government of Spain and UNEP to return not-committed balances no longer required for future projects (decision 81/2).

(ii) Bilateral cooperation

78. At the 81st meeting, requests by the Governments of Canada, Germany, Italy, Japan and Spain to offset funds for bilateral projects were approved in the amount of to US \$2,894,312 (decision 81/35), bringing the total for bilateral cooperation since the inception of the Multilateral Fund to US \$167,081,838 (including agency fees and excluding cancelled and transferred projects), which represents approximately 4.7 per cent of the funds approved.

(iii) 2018–2020 business plan and financial planning

79. At the 81st meeting, the Executive Committee noted the update on the status of implementation of the 2018–2020 business plan³⁸ of the Multilateral Fund and the bilateral agency business plans submitted by the Governments of Canada and Germany. The Committee also noted that, pursuant to decision 78/3(g), requests totalling US \$11,290,807 for HFC phase-down activities had been submitted to the 81st meeting, but had not been included in the 2018–2020 consolidated business plan. Consequently, the 2018 funding tranche for the polyurethane rigid foam

³⁸ UNEP/OzL.Pro/ExCom/81/12

sector in stage II of the HPMP for China and the 2018 funding tranche for the room air-conditioning manufacturing sector in stage II of the HPMP for China were moved to the 2019 consolidated business plan.

80. In terms of financial planning for the 2018–2020 triennium,³⁹ therefore, the Committee adopted resource allocations of US \$194.4 million in 2018, US \$174.6 million in 2019, and US \$171 million in 2020.

81. The Committee urged the bilateral and implementing agencies to submit all projects and activities endorsed in the business plan in order to utilize fully the resources available during the for 2018–2020 triennium and decided that it would consider the availability of cash flow for the 2020 budget at the last meeting of 2019 in light of: the collection of interest; the unexpected return of unused balances from projects/Agreements; the payment of pledges from triennia prior to the previous replenishment; any losses due to non-payment of pledges expected from the previous replenishment; and any losses or gains due to the fixed-exchange-rate mechanism (decision 81/26).

(iv) Compliance Assistance Programme

82. The Executive Committee noted the final report on the review of the overall structure of the Compliance Assistance Programme and its operations and regional structure in addressing emerging needs and new challenges in Article 5 countries, pursuant to decision 80/55(b)(i).⁴⁰ It also requested UNEP, when submitting the CAP budget and work plan for 2019 at the 82nd meeting, to describe, for consideration by the Executive Committee, the operationalization of the proposed changes in the overall CAP structure, in line with relevant previous decisions on the CAP and its funding (decision 81/38).

(v) Fund Secretariat activities

83. During the period under review, the Fund Secretariat took actions⁴¹ pursuant to the decisions taken by the Executive Committee at its previous meetings; prepared documentation and provided conference services; and continued interacting with other multilateral environmental agreements and relevant organizations. In addition to the documents customarily prepared for Executive Committee meetings, the Secretariat also prepared documents, *inter alia*, on the policy matters referred to above.

84. At the 81st meeting, the Secretariat analysed and reviewed 110 funding requests and provided comments and recommendations for the Executive Committee's consideration. The level of funding of US \$ 90,076,367 requested for approval, following project review, amounted to US \$72,208,552.

³⁹ UNEP/OzL.Pro/ExCom/81/12

⁴⁰ UNEP/OzL.Pro/ExCom/81/20 and Corr.1

⁴¹ UNEP/OzL.Pro/ExCom/81/2

Annex I

**DOCUMENTS CONSIDERED AND DECISIONS TAKEN BY THE EXECUTIVE COMMITTEE IN
RELATION TO MATTERS ARISING FROM THE KIGALI AMENDMENT**

Document number	Title	Decisions
ExCom/77/70/Rev.1	Issues relevant to the Executive Committee arising from the Twenty-eighth Meeting of the Parties to the Montreal Protocol	<p>77/59: Following the report of the convenor of the contact group, the Executive Committee <u>decided</u>:</p> <ul style="list-style-type: none"> (a) To hold a four-day special meeting early in 2017 to address matters related to the Kigali Amendment to the Montreal Protocol arising from decision XXVIII/2 of the Meeting of the Parties, and potential additional contributions to the Multilateral Fund; (b) To request the Secretariat to prepare a document containing preliminary information in response to the elements in decision XXVIII/2 of the Twenty-Eighth Meeting of the Parties that requested the Executive Committee to take action, and addressing the following issues: <ul style="list-style-type: none"> (i) Available information on HFC consumption and production, as well as on HFC-23 by-product, including from surveys of ODS alternatives funded by the Multilateral Fund and other sources; (ii) The enabling activities required to assist Article 5 countries in commencing their reporting and regulatory activities in relation to the HFC-control measures; (iii) Key aspects related to HFC-23 by-product-control technologies; (iv) Identification of the issues that the Executive Committee might want to consider in relation to existing HCFC phase-out activities; (v) Information relevant to the development of the cost guidelines requested from the Executive Committee; (c) To invite Executive Committee members of the 77th meeting to share relevant information with the Secretariat on, but not limited to, the elements listed in sub-paragraphs (b)(i) to (v) above, no later than 31 January 2017 on an exceptional basis owing to the limited time until the end of 2016; (d) With respect to the intended US \$27 million fast-start contributions in 2017 from some of the non-Article 5 Parties: <ul style="list-style-type: none"> (i) To accept, with appreciation, the additional contributions announced by a number of non-Article 5 Parties to provide fast-start support for implementation of the Kigali Amendment, noting that such funding was one-time in nature and would not displace donor contributions; (ii) That the additional contributions mentioned in sub-paragraph (d)(i) above should be made available for Article 5 countries that had an HFC consumption baseline year between 2020 and 2022 and that had formally indicated their intent to ratify the Kigali Amendment and take on early HFC phase-down obligations in order to support their enabling activities, such as capacity building and training in handling HFC alternatives, Article 4B licensing, reporting, and project preparation activities, taking into account, but not restricted to, relevant guidelines and decisions of the Executive Committee; (iii) To request the Secretariat to develop a document describing possible procedures for countries identified in sub-paragraph (d)(ii) above in accessing the additional fast-start contributions for enabling activities; (iv) That the Treasurer would communicate with contributing non-Article 5 countries on procedures for making the additional contributions available to the Multilateral Fund for the purpose of early action in respect of the Kigali Amendment;

Document number	Title	Decisions
		<p>(v) That the Secretariat would report to the Executive Committee on the additional fast-start contributions received separately from the pledged contributions to the Multilateral Fund; and</p> <p>(e) To request the Secretariat to prepare an agenda for the special meeting referred to in sub-paragraph (a) above based on the issues identified in sub-paragraphs (b) to (d) above.</p>
ExCom/78/3 and Corr.1	Status of additional contributions to the Multilateral Fund	<p>78/1: The Executive Committee <u>decided</u>:</p> <p>(a) To note the report by the Treasurer on the status of the additional contributions to the Multilateral Fund as contained in documents UNEP/OzL.Pro/ExCom/78/3 and Corr.1;</p> <p>(b) Further to note with appreciation the status of pledged additional contributions distributed among the 16 non-Article 5 parties to provide fast-start support for implementation of the Kigali Amendment; and</p> <p>(c) To request the Treasurer to report to the Executive Committee on the additional contributions received for fast-start support separately from the other pledged contributions to the Multilateral Fund at the 79th meeting.</p>
ExCom/78/4 and Corr.1	Available information on HFC consumption and production in Article 5 countries	<p>78/2: The Executive Committee <u>decided</u>:</p> <p>(a) To note the report on the available information on HFC consumption and production in Article 5 countries contained in documents UNEP/OzL.Pro/ExCom/78/4 and Corr.1;</p> <p>(b) To urge bilateral and implementing agencies to work with relevant Article 5 countries to complete and submit, no later than 8 May 2017, as many ODS alternatives survey reports as possible; and</p> <p>(c) To request the bilateral and implementing agencies to return to the 81st meeting unspent balances for those surveys of ODS alternatives that had not been submitted to either the 79th or 80th meeting of the Executive Committee.</p>
ExCom/78/5 and Corr.1	Information relevant to the development of the cost guidelines for the phase-down of HFCs in Article 5 countries: Draft criteria for funding	<p>78/3: Following the comprehensive discussions on information relevant to the development of the cost guidelines for the phase-down of HFCs in Article 5 countries, the Executive Committee <u>decided</u>:</p> <p>(a) To take note of the information relevant to the development of the cost guidelines for the phase-down of HCFCs in Article 5 countries: draft criteria for funding contained in documents UNEP/OzL.Pro/ExCom/78/5 and Corr.1;</p> <p><u>In relation to flexibility in implementation that enables parties to select their own strategies and priorities in sectors and technologies</u></p> <p>(b) To include paragraph 13 of decision XXVIII/2 in the relevant section of the draft template of the cost guidelines for the phase-down of HFCs contained in Annex I to [document UNEP/OzL.Pro/ExCom/78/11];</p> <p><u>In relation to the cut-off date for eligible capacity</u></p> <p>(c) To include paragraph 17 of decision XXVIII/2 in the relevant section of the draft template of the cost guidelines for the phase-down of HFCs contained in Annex I to [document UNEP/OzL.Pro/ExCom/78/11];</p> <p><u>In relation to second and third conversions</u></p> <p>(d) To include paragraph 18 of decision XXVIII/2 in the relevant section of the draft template of the cost guidelines for the phase-down of HFCs contained in Annex I to [document UNEP/OzL.Pro/ExCom/78/11];</p> <p><u>In relation to sustained aggregate reductions in HFC consumption and production</u></p> <p>(e) To continue discussions on:</p> <p>(i) The methodology for determining the starting point, including whether it would be expressed in CO₂ equivalents, metric tonnes, or both;</p> <p>(ii) The inclusion of paragraph 19 of decision XXVIII/2 in the relevant section of the draft template of the cost guidelines for the phase-down of HFCs;</p>

Document number	Title	Decisions
		<p><u>In relation to eligible incremental costs</u></p> <p><i>For the consumption manufacturing sector</i></p> <p>(f) In accordance with paragraph 15(a) of decision XXVIII/2, to make the following categories of costs eligible and to include them in the cost calculation associated with the phase-down of HFCs in the consumption manufacturing sector contained in Annex I to [document UNEP/OzL.Pro/ExCom/78/11]:</p> <ul style="list-style-type: none"> (i) Incremental capital costs (ICCs); (ii) Incremental operating costs (IOCs) for a duration to be determined by the Executive Committee; (iii) Technical assistance activities; (iv) Research and development, when required to adapt and optimize alternatives to HFCs with low- or zero-global warming potential; (v) Costs of patents and designs, and incremental costs of royalties, when necessary and cost-effective; (vi) Costs of the safe introduction of flammable and toxic alternatives; <p>(g) To consider approving a limited number of HFC-related projects in the manufacturing sector only, without prejudice to different kinds of technology, no later than at the first meeting of 2019, to allow the Committee to gain experience in the ICCs and IOCs that might be associated with phasing down HFCs in Article 5 countries, on the understanding: that any Article 5 country that submitted a project should have ratified the Kigali Amendment or submitted a formal letter indicating the government's intention to ratify the Amendment; that no further funding would be available until the instrument of ratification had been received by the depositary at the Headquarters of the United Nations in New York; and that any amount of HFC reduced as a result of the project would be deducted from the starting point;</p> <p>(h) To consider costs and savings related to opportunities for further avoiding HFCs in HCFC phase-out activities and how they could be addressed; and</p> <p><u>For the other matters discussed in relation to documents UNEP/OzL.Pro/ExCom/78/5 and Corr.1</u></p> <p>(i) To request the Secretariat to prepare a document containing the elements of decision XXVIII/2 presented by the Chair of the Executive Committee in his written summary of discussions on agenda item 6(a), Information relevant to the development of the cost guidelines for the phase-down of HFCs in Article 5 countries, at the 78th meeting, for further consideration by the Executive Committee at its 79th meeting, including a summary of the issues pending, such as eligible incremental costs (consumption manufacturing, production sector, refrigeration servicing sector, and other costs), energy efficiency, capacity building to address safety, disposal and eligibility of Annex F substances subject to high-ambient-temperature exemptions.</p>
ExCom/78/6	Information relevant to the development of the cost guidelines for the phase-down of HFCs in Article 5 countries: Enabling activities	<p>78/4: Following a discussion, the Executive Committee <u>decided</u>:</p> <ul style="list-style-type: none"> (a) To request the Secretariat to prepare a document providing draft guidelines on enabling activities for consideration by the Executive Committee at its 79th meeting, taking into account the discussions on the matter at the 78th meeting; and (b) To consider increasing funding for institutional strengthening at a future meeting in accordance with paragraph 20 of decision XXVIII/2.
ExCom/78/7	Information relevant to the development of the cost guidelines for the phase-down of HFCs in Article 5	

Document number	Title	Decisions
	countries: Institutional strengthening	
ExCom/78/8	Identification of issues to be considered in relation to existing HCFC phase-out activities	Following the discussion, the Executive Committee took note of document UNEP/OzL.Pro/ExCom/78/8 on identification of issues to be considered in relation to existing HCFC phase-out activities.
ExCom/78/9 and Corr.1	Key aspects related to HFC-23 by-product control technologies	<p>78/5: Following a discussion in the contact group, the Executive Committee <u>decided</u>:</p> <ul style="list-style-type: none"> (a) To take note of the key aspects related to HFC-23 by-product-control technologies contained in documents UNEP/OzL.Pro/ExCom/78/9 and Corr.1; (b) To note the urgency of taking action to enable Article 5 countries to meet the HFC-23 reporting and control obligations by 1 January 2020; (c) To reiterate, through the World Bank, its request to the Government of China that it provide to the 79th meeting reports on the status of the studies on “HFC-23 conversion/pyrolysis technologies” and on “investigation on reducing HFC-23 by-product ratio using best practices” that had been funded through the HCFC production phase-out management plan; (d) To invite all relevant HCFC-22 producing parties to provide to the Secretariat, on a voluntary basis, information on quantities of HFC-23 in facilities producing HCFC-22 as well as their experience in controlling and monitoring HFC-23 by-product emissions, including relevant policies and regulations and the related costs, no later than 15 May 2017; (e) To request the Secretariat to continue to explore whether there were HFC- or other HCFC-producing facilities in any party that generated HFC-23 emissions and to report back to the Executive Committee by 31 May 2018; (f) To request the Secretariat to submit an updated document of key aspects related to HFC-23 by-product control technologies to the 79th meeting, including: <ul style="list-style-type: none"> (i) Information relevant to the cost of closure of HCFC-22 production swing plants; (ii) A description of existing policies and regulations supporting the control and monitoring of HFC-23 emissions and requirements for sustaining those measures in Article 5 countries; (iii) Further analysis of methods to control HFC-23 emissions based on the additional information provided by Executive Committee members and any other available information to the Secretariat, including information from the Clean Development Mechanism; (iv) The current levels of HCFC-22 production and HFC-23 emissions, and information on management practices, per line, in each facility in Article 5 and non-Article 5 countries, including information on approved monitoring methodologies under the United Nations Framework Convention on Climate Change; and (v) Exploration of possible options for monitoring HFC-23 emissions, such as those approved for continuous monitoring under the United Nations Framework Convention on Climate Change, including the associated costs; and (g) To consider the need for a desk and field study at the 79th meeting.
ExCom/78/10 and Corr.1	Draft procedures for Article 5 countries that have HFC consumption baseline years from 2020 to 2022 in accessing additional	The Executive Committee therefore agreed to defer further consideration of the matter to its 79 th meeting.

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	contributions for enabling activities	
ExCom/79/44 and Corr.1	Status of additional contributions to the Multilateral Fund (decision 78/1(c))	<p>79/42: The Executive Committee <u>decided</u>:</p> <p>(a) To note the report by the Treasurer on the status of additional contributions to the Multilateral Fund (decision 78/1(c)) contained in documents UNEP/OzL.Pro/ExCom/79/44 and Corr.1, and as orally amended during the meeting;</p> <p>(b) Further to note with appreciation the six non-Article 5 countries that had made payments to provide fast-start support for the implementation of the HFC phase-down: Denmark, Finland, Ireland, Italy, Luxembourg and New Zealand; and</p> <p>(c) To request the Treasurer, at the 80th meeting, to report to the Executive Committee on the status of the additional contributions for fast-start support separately from other pledged contributions to the Multilateral Fund.</p>
ExCom/79/45 and Corr.1	Overall analysis of the results of the surveys on ODS alternatives (decision 74/53)	<p>79/43: The Executive Committee <u>decided</u>:</p> <p>(a) To note the overall preliminary analysis of the results of the surveys of ODS alternatives (decision 74/53) contained in documents UNEP/OzL.Pro/ExCom/79/45 and Corr.1;</p> <p>(b) To urge bilateral and implementing agencies to work with relevant Article 5 countries to complete and submit all outstanding surveys on ODS alternatives no later than 18 September 2017, noting that unspent balances of surveys not submitted to the 80th meeting had to be returned to the 81st meeting in line with decision 78/2(c); and</p> <p>(c) To request the Secretariat to submit, to the 80th meeting, an overall analysis of the results of the surveys of ODS alternatives, updated to include all surveys submitted to the Secretariat by 18 September 2017.</p>
ExCom/79/46	Development of the cost guidelines for the phase-down of HFCs in Article 5 countries: Draft criteria for funding (decision 78/3)	<p>79/44: Following a report by the convenor of the contact group, the Executive Committee <u>decided</u>:</p> <p>(a) To note the development of the cost guidelines for the phase-down of HFCs in Article 5 countries: draft criteria for funding (decision 78/3) contained in document UNEP/OzL.Pro/ExCom/79/46;</p> <p>(b) To develop guidelines for funding the phase-down of HFC consumption and production for submission to the Thirtieth Meeting of the Parties in 2018, and to finalize the guidelines as soon as possible thereafter, taking into account the views and input provided by the parties;</p> <p>(c) To agree that, in line with paragraph 11 of decision XXVIII/2 on overarching principles and timelines, the Chair of the Executive Committee would report in relation to the HFC phase-down:</p> <p>(i) To the Twenty-Ninth Meeting of the Parties on the progress of the Executive Committee in developing cost guidelines for funding HFC phase-down; and</p> <p>(ii) To future Meetings of the Parties on progress made, including on cases where Executive Committee deliberations had resulted in a change in a national strategy or a national technology choice submitted to the Executive Committee.</p> <p>79/45: In relation to criteria for considering stand-alone investment projects pursuant to decision 78/3(g), the Executive Committee <u>decided</u>:</p> <p>(a) To reiterate decision 78/3(g) and to consider proposals for HFC-related stand-alone investment projects based on the following criteria:</p> <p>(i) That the submitted projects would be considered on a case-by-case basis, should be in individual enterprises deciding to convert to mature technologies, should have broad replicability to the country or region or sector, and should take into account geographic distribution;</p> <p>(ii) That projects must be fully implemented by no more than two years from the time of their approval, that the relevant project completion reports</p>

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		<p>should be comprehensive with detailed information on the eligible incremental capital costs, incremental operating costs, any possible savings incurred during the conversion and relevant factors that facilitated implementation, and that any remaining funds would be returned to the Multilateral Fund no later than one year after the date of project completion as per the project proposals;</p> <p>(b) That potential projects should be included in the bilateral and implementing agencies' 2018 to 2020 business plans for submission at the 80th meeting or subsequent business plans, as appropriate;</p> <p>(c) To consider further stand-alone investment projects on a rolling basis after the first meeting in 2019; and</p> <p>(d) That any proposal submitted and approved for funding at the 80th meeting would be funded, to the extent possible, from additional voluntary contributions provided by non-Article 5 parties, after giving priority to enabling activities.</p>										
-ExCom/79/47	Development of the cost guidelines for the phase-down of HFCs in Article 5 countries: Draft guidelines on enabling activities (decision 78/4(a))	<p>79/46: The Executive Committee <u>decided</u>:</p> <p>(a) To note the development of the cost guidelines for the phase-down of HFCs in Article 5 countries: draft guidelines on enabling activities (decision 78/4(a)) contained in document UNEP/OzL.Pro/ExCom/79/47;</p> <p>(b) To approve enabling activities for Article 5 parties on the following basis:</p> <p>(i) Countries would be allowed the flexibility to undertake a range of enabling activities to help their national ozone units to fulfil their initial obligations with regard to HFC phase-down in line with the Kigali Amendment;</p> <p>(ii) Enabling activities could consist of, but were not limited to:</p> <p>a. Activities to facilitate and support the early ratification of the Kigali Amendment;</p> <p>b. Initial activities identified in paragraph 20 of decision XXVIII/2, including country-specific activities aimed at initiating supporting institutional arrangements, the review of licensing systems, data reporting on HFC consumption and production, and demonstration of non-investment activities, and excluding institutional strengthening, as addressed in decision 78/4(b);</p> <p>c. National strategies that contained the activities in sub-paragraphs a. and b. above;</p> <p>(iii) Funding for the preparation of national implementation plans to meet initial reduction obligations for the phase-down of HFCs could be provided, at the earliest, five years prior to those obligations, after a country had ratified the Kigali Amendment and on the basis of guidelines to be approved in the future;</p> <p>(iv) Funding for stand-alone initial investment projects could be provided in accordance with the provisions of decision 79/45;</p> <p>(c) To provide funding for enabling activities referred to in paragraph (a)(ii) above prior to the preparation of the national implementation plan as specified in the table below, based on the country's HCFC baseline consumption, on the understanding that no further funding for enabling activities, including for HFC-23 activities, would be provided prior to the preparation of national implementation plans:</p> <table border="1" data-bbox="683 1717 1440 1892"> <thead> <tr> <th data-bbox="683 1717 1057 1776">HCFC baseline (ODP tonnes)</th> <th data-bbox="1057 1717 1440 1776">Maximum funding for enabling activities (US \$)</th> </tr> </thead> <tbody> <tr> <td data-bbox="683 1776 1057 1803">Below 1</td> <td data-bbox="1057 1776 1440 1803">50,000</td> </tr> <tr> <td data-bbox="683 1803 1057 1831">Between 1 and 6</td> <td data-bbox="1057 1803 1440 1831">95,000</td> </tr> <tr> <td data-bbox="683 1831 1057 1858">Above 6 and up to 100</td> <td data-bbox="1057 1831 1440 1858">150,000</td> </tr> <tr> <td data-bbox="683 1858 1057 1885">Above 100</td> <td data-bbox="1057 1858 1440 1885">250,000</td> </tr> </tbody> </table> <p>(d) That funding requests for enabling activities should meet the following requirements:</p>	HCFC baseline (ODP tonnes)	Maximum funding for enabling activities (US \$)	Below 1	50,000	Between 1 and 6	95,000	Above 6 and up to 100	150,000	Above 100	250,000
HCFC baseline (ODP tonnes)	Maximum funding for enabling activities (US \$)											
Below 1	50,000											
Between 1 and 6	95,000											
Above 6 and up to 100	150,000											
Above 100	250,000											

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		<ul style="list-style-type: none"> (i) Ratification of the Kigali Amendment by the government submitting the request or a receipt of letter from the government concerned indicating its intent to make best efforts to ratify the Kigali Amendment as early as possible; (ii) The inclusion of detailed descriptions, in project proposals, of each of the enabling activities that would be undertaken, including institutional arrangements, the cost breakdown and the schedule for implementation, consistent with Executive Committee guidelines; (iii) The duration of a project should be no more than 18 months, starting from the time of its approval, and balances should be returned to the Multilateral Fund within 12 months of that end date; (iv) Bilateral and implementing agencies should include any funding requests for enabling activities in their business plans, which could be submitted to the 80th or subsequent meetings, and subsequently in their work programmes or work programme amendments; (v) Any submission should also include a statement by both the country concerned and the relevant bilateral/implementing agency that implementation of the enabling activities would not delay implementation of HCFC phase-out projects; and <p>(e) To invite bilateral and implementing agencies to submit, by the 80th meeting, funding requests for enabling activities for countries that wanted to take early action on HFCs, with any proposal considered for funding at that meeting to be funded to the extent possible from additional voluntary contributions provided by non-Article 5 parties.</p>
<p>ExCom/79/48, Corrs.1&2, & Add.1</p>	<p>Key aspects related to HFC-23 by-product control technologies (decision 78/5)</p>	<p>79/47: Following the discussions of the contact group, the Executive Committee <u>decided</u>:</p> <ul style="list-style-type: none"> (a) To note documents UNEP/OzL.Pro/ExCom/79/48, Corr.1, Corr.2 and Add.1 on key aspects related to HFC-23 by-product control technologies (decision 78/5); (b) To note with appreciation the information related to HFC-23 by-product provided by the Governments of Argentina, China, the Democratic People's Republic of Korea, Germany, India, Japan, Mexico, the Republic of Korea, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America; the European Union; the Secretariat of the United Nations Framework Convention on Climate Change; a fluorochemical producer; and an independent research and consulting organization; (c) To consider possible cost-effective options for compensation for HCFC-22 swing plants to allow for compliance with the HFC-23 by-product control obligations of the Kigali Amendment; (d) To request relevant governments of Article 5 countries wishing to close HCFC-22 production swing plants in their respective countries to submit the following preliminary data, for consideration by the Executive Committee at its 80th meeting: <ul style="list-style-type: none"> (i) A list of HCFC-22 swing plants in the country: <ul style="list-style-type: none"> a. Name; b. Location; c. HCFC-22 production capacity; d. Schedule for closure; e. Date of establishment; f. Name of proprietors; g. Ownership; h. Emissions and ratio of HFC-23 by-product; i. Maximum production of HCFC-22;

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		<ul style="list-style-type: none"> (ii) HCFC-22 production in the last three years countrywide; (iii) HCFC-22 production in the last three years for each swing plant; (iv) Quantity of export of each plant to non-Article 5 countries; (v) Total number of employees in the HCFC-22 industry: <ul style="list-style-type: none"> a. In the production sector (direct labour + overheads + maintenance); b. In the packaging sectors; (vi) Total number of employees per HCFC-22 swing plant (one table per plant) for the last three years: <ul style="list-style-type: none"> a. Direct labour; b. Overheads; c. Laboratories; d. Maintenance; e. Packaging; (vii) The raw material purchases of each HCFC-22 swing plant in the last three years: <ul style="list-style-type: none"> a. Hydrogen fluoride (metric tonnes); b. Chloroform (metric tonnes); (e) To request the Secretariat to contract an independent consultant to undertake an evaluation of cost-effective and environmentally sustainable options of HFC-23 destruction from HCFC-22 production facilities, to submit the report of the consultant to the 81st meeting, and to allocate a budget of up to US \$100,000 from the additional contributions to the Multilateral Fund to undertake the evaluation and prepare the report. The scope of the study would include: <ul style="list-style-type: none"> (i) An assessment of the costs of incineration at an on-site destruction facility, based on characteristics of the facility, including destruction capacity, quantity and frequency of HFC-23 to be destroyed, the expected remaining lifetime, location, and other relevant factors, including: <ul style="list-style-type: none"> a. Start-up costs for destruction facilities that might currently be in disuse; b. Costs to install a new destruction facility if one was not currently installed; c. Costs to operate a currently installed facility; (ii) An assessment of the costs of incineration at an off-site destruction facility, including collection, transportation and incineration, based on the quantity of HFC-23 to be destroyed, location, and other relevant factors; (iii) An assessment of the cost of destroying emissions of HFC-23 by-product through irreversible transformation and other new technologies, where information was available, based on the quantity of HFC-23 to be destroyed, location, and other relevant factors; (iv) An assessment of the costs and measures to optimize the HCFC-22 production process to minimize the HFC-23 by-product generation rate and maximize the collection of HFC-23 by-product for destruction based on characteristics of the facility, including capacity, quantity of HFC-23 by-product generated, the expected remaining lifetime, location, and other relevant factors; (v) An assessment of the costs of different monitoring and verification methods; (vi) An assessment of how the performance and costs of different destruction technology options would vary according to local conditions and the quantity of HFC-23 by-product to be destroyed;

Document number	Title	Decisions
		<p>(f) To invite all relevant HCFC-22-producing Article 5 countries to provide to the Secretariat, on a voluntary basis, information on the elements described in paragraph (e) above by 30 September 2017; and</p> <p>(g) To invite implementing agencies to submit to the 81st meeting proposals for feasible technology demonstration for HFC-23 by-product mitigation or conversion technologies with the potential for cost-effective, environmentally sustainable conversion of HFC-23.</p>
ExCom/80/53	Status of additional contributions to the Multilateral Fund (decision 79/42(c))	<p>80/74: The Executive Committee <u>decided</u>:</p> <p>(a) To note the report of the Treasurer on the status of additional contributions to the Multilateral Fund contained in document UNEP/OzL.Pro/ExCom/80/53, as orally amended during the meeting;</p> <p>(b) Further to note with appreciation that 11 non-Article 5 countries had paid their pledged additional voluntary contributions to provide fast-start support for HFC phase-down; and</p> <p>(c) To request the Treasurer to report again to the Executive Committee on the status of the additional contributions received for fast-start support separately from other pledged contributions to the Multilateral Fund at the 81st meeting.</p>
ExCom/80/54	Overall analysis of the results of the surveys of ODS alternatives (decision 79/43(c))	<p>80/75: The Executive Committee <u>decided</u>:</p> <p>(a) To note the overall analysis of the results of the surveys of ODS alternatives (decision 79/43(c)) contained in documents UNEP/OzL.Pro/ExCom/80/54 and Add.1;</p> <p>(b) To request bilateral and implementing agencies to use the findings and the lessons from the results of the surveys of ODS alternatives while undertaking enabling activities, with particular attention to strengthening data collection and reporting of HFCs and HFC blends;</p> <p>(c) To request bilateral and implementing agencies:</p> <p>(i) To return, no later than the 82nd meeting, balances related to the completed surveys of ODS alternatives; and</p> <p>(ii) To return, to the 81st meeting, balances related to surveys of ODS alternatives that had not been submitted to the 80th meeting (i.e. for Algeria, Antigua and Barbuda, Bahamas, Democratic People's Republic of Korea, Fiji, Morocco and Myanmar), in line with decision 79/43.</p>
ExCom/80/55	Development of the cost guidelines for the phase-down of HFCs in Article 5 countries: Draft criteria for funding (decisions 78/3(i) and 79/44(b))	<p>80/76: The Executive Committee <u>decided</u>:</p> <p>(a) To include in the draft template of the cost guidelines for the phase-down of HFCs contained in Annex XXVIII to the present report:</p> <p>(i) Text related to sustained aggregate reductions in line with paragraph 19 of decision XXVIII/2 of the Twenty-Eighth Meeting of the Parties;</p> <p>(ii) Text related to the eligibility of Annex F substances subject to high-ambient-temperature exemptions, in line with paragraph 35 of decision XXVIII/2;</p> <p>(iii) For the production sector, the categories of costs in sub-paragraph 15(b) of decision XXVIII/2; and</p> <p>(iv) For the refrigeration servicing sector, the categories of costs in sub-paragraph 15(c) of decision XXVIII/2;</p> <p>(b) To continue to use the draft template of the cost guidelines for the phase-down of HFCs and the list of outstanding elements for discussion, contained in Annexes XXVIII and XXIX to the present report, as the working documents for discussions at the 81st meeting and future meetings on the development of the cost guidelines for the phase-down of HFCs in Article 5 countries, noting that additional elements could be added as required;</p> <p>(c) To request the Secretariat to prepare a preliminary document for the 82nd meeting, in cooperation with bilateral and implementing agencies, on all aspects related to the refrigeration servicing sector that support the HFC phase-</p>

Document number	Title	Decisions
		<p>down, taking into account:</p> <ul style="list-style-type: none"> (i) Previous policy documents, case studies, monitoring and evaluation reviews, and the work undertaken by bilateral and implementing agencies in developing and implementing training and technical assistance programmes, in particular the partnership that the Compliance Assistance Programme had established with world-recognized training and certification institutes; (ii) Analysis of the existing capacities in Article 5 countries with the funding approved thus far for the refrigeration servicing sector and how those could be utilized for HFC phase-down, in relation to: <ul style="list-style-type: none"> a. The results of funded recovery, recycling and reclamation activities and the provision of servicing tools, and their potential to reduce refrigerant emissions; b. The extent of the involvement of the private and/or public sector (e.g. equipment, components and refrigerant suppliers) in introducing and adopting alternatives in the servicing sector; c. Health and safety standards, protocols and equipment (including protective equipment) available for alternatives; d. Training and certification programmes; e. If and how energy efficiency was addressed in the servicing/end-user sector; and (iii) The minimum information needed for the development of training and competency-based certification programmes and modules for service technicians and customs officers for the transition to alternatives.
ExCom/80/56 & Add.1	Key aspects related to HFC-23 by-product control technologies: preliminary data of HCFC-22 production swing plants that wish to close (decision 79/47(d))	<p>80/77: The Executive Committee <u>decided</u>:</p> <ul style="list-style-type: none"> (a) To note the submission by the Governments of Argentina and India of the preliminary data on HCFC-22 swing plants in their countries contained in documents UNEP/OzL.Pro/ExCom/80/56 and Add.1; and (b) To invite all relevant HCFC-22-producing Article 5 countries to provide to the Secretariat, on a voluntary basis, information on the elements described in paragraph (e) of decision 79/47 by 1 December 2017.
ExCom/81/53	Development of the cost guidelines for the phase-down of HFCs in Article 5 countries: Draft criteria for funding (decisions 78/3(i) and 79/44(b) and 80/76(b))	<p>81/67: The Executive Committee <u>decided</u>:</p> <ul style="list-style-type: none"> (a) To note document UNEP/OzL.Pro/ExCom/81/53 on development of the cost guidelines for the phase-down of HFCs in Article 5 countries: draft criteria for funding; (b) To request the Secretariat to provide to the 82nd meeting the summary of the Parties' deliberations at the 40th Meeting of the Open-Ended Working Group of Parties to the Montreal Protocol and the Thirtieth Meeting of the Parties to the Montreal Protocol in relation to the report by the Technology and Economic Assessment Panel on issues related to energy efficiency in response to decision XXIX/10 of the Meeting of the Parties; (c) To consider, at the 82nd meeting, the matter of prioritization of technical assistance and capacity building to address safety issues associated with alternatives with low and zero global-warming potential (GWP) for all sectors, in light of the paper being prepared by the Secretariat in response to decision 80/76 regarding aspects of refrigeration servicing sector that supported HFC phase-down; (d) To consider, at the 82nd meeting, issues related to funding the cost-effective management of stockpiles of used or unwanted controlled substances, including through destruction, in light of the paper on ODS disposal being prepared by the Secretariat for that meeting in response to decision 79/18(e); (e) To request the Secretariat to prepare for the 82nd meeting a preliminary information document containing key considerations that could assist the Executive Committee in developing a methodology for establishing the starting point for sustained aggregate reductions under the Kigali Amendment for the

Document number	Title	Decisions
		<p>consumption and production sectors, taking into account the discussions that had taken place at the 81st meeting;</p> <p>(f) To continue to use the draft template of the cost guidelines for the phase-down of HFCs and the list of outstanding elements for further discussion, contained in Annex XII and Annex XIII, respectively, to the present report, as the working documents for discussions at the 82nd and future meetings on the development of cost guidelines for the phase-down of HFCs in Article 5 countries, noting that additional elements could be added as required.</p>
ExCom/81/54	<p>Key aspects related to HFC-23 by-product control technologies: preliminary data of HCFC-22 production swing plants that wish to close (decisions 78/5(e), 79/47(e) and 80/77(b))</p>	<p>81/68: The Executive Committee <u>decided</u>:</p> <p>(a) To note the report on key aspects related to HFC-23 by-product control technologies (decisions 78/5(e), 79/17(b), 79/47(e) and 80/77(b)) contained in document UNEP/OzL.Pro/ExCom/81/54;</p> <p>(b) To request the Secretariat to contract an independent consultant to prepare a report for the 82nd meeting, providing information:</p> <p>(i) On options and all costs and savings related to the control of HFC-23 by-product emissions in Argentina, based on the quantities of HCFC-22 and HFC-23 produced at the plant and information included in relevant past reports to the Executive Committee, including the option of shipping HFC-23 for off-site destruction;</p> <p>(ii) On estimates of fugitive emissions and options for monitoring, leak detection and control of HFC-23 by-product at the plant;</p> <p>(iii) On the costs, technical feasibility, and logistical, legal and transaction issues associated with shipping HFC-23 for off-site destruction by means of a technology such as the Fluor process described in document UNEP/OzL.Pro/ExCom/81/54;</p> <p>(c) To request the Government of Argentina to provide, on a voluntary basis, relevant information for the report referred to in sub-paragraph (b) above;</p> <p>(d) To allocate, from existing Secretariat resources, up to US \$25,000 for the contract of the independent consultant referred to in sub-paragraph (b) above; and</p> <p>(e) To request the Secretariat to prepare a document for the 82nd meeting, based on document UNEP/OzL.Pro/ExCom/79/48, on cost effective options for controlling HFC 23 by product emissions, including information relevant to the cost of closure of HCFC 22 production swing plants, and options for monitoring, in light of the report by the consultant submitted to the 81st meeting and other relevant reports.</p>

Annex II

DRAFT TEMPLATE OF THE COST GUIDELINES FOR THE PHASE-DOWN OF HFCs (As of the 81st meeting)

Background

1. The present Annex contains the draft cost guidelines for the phase-down of HFCs based on the relevant elements of decision XXVIII/2 agreed by the Parties at their Twenty-eight Meeting. These draft cost guidelines contain elements agreed at the 78th and 80th meetings and will be updated pursuant to further discussions at the 82nd and future meetings of the Executive Committee.

Draft guidelines

Flexibility in implementation that enables parties to select their own strategies and priorities in sectors and technologies

2. Article 5 countries will have flexibility to prioritize HFCs, define sectors, select technologies and alternatives and elaborate and implement their strategies to meet agreed HFC obligations, based on their specific needs and national circumstances, following a country-driven approach.

Cut-off date for eligible capacity

3. The cut-off date for eligible capacity is 1 January 2020 for those parties with baseline years from 2020 to 2022, and 1 January 2024 for those parties with baseline years from 2024 to 2026.

Second and third conversions

4. To apply the following principles for second and third conversion projects:

- (a) First conversions, in the context of a phase-down of HFCs, are defined as conversions to low-global warming potential (GWP) or zero-GWP alternatives of enterprises that have never received any direct or indirect support, in part or in full, from the Multilateral Fund, including enterprises that converted to HFCs with their own resources;
- (b) Enterprises that have already converted to HFCs in phasing out CFCs and/or HCFCs will be eligible to receive funding from the Multilateral Fund to meet agreed incremental costs in the same manner as enterprises eligible for first conversions;
- (c) Enterprises that convert from HCFCs to high-GWP HFCs, after the date of adoption of the Amendment, under HPMPs already approved by the Executive Committee will be eligible to receive funding from the Multilateral Fund for a subsequent conversion to low-GWP or zero-GWP alternatives to meet agreed incremental costs in the same manner as enterprises eligible for first conversions;
- (d) Enterprises that convert from HCFCs to high-GWP HFCs with their own resources before 2025 under the Amendment will be eligible to receive funding from the Multilateral Fund to meet agreed incremental costs in the same manner as enterprises eligible for first conversions; and
- (e) Enterprises that convert from HFCs to lower-GWP HFCs with Multilateral Fund support when no other alternatives are available will be eligible to receive funding from the Multilateral Fund for a subsequent conversion to low-GWP or zero-GWP alternatives if necessary to meet the final HFC phase-down step.

Sustained aggregate reductions

5. The remaining eligible consumption for funding in tonnage will be determined on the basis of the starting point of national aggregate consumption less the amount funded by previously approved projects in future multi-year agreement templates for HFC phase-down plans.

Eligible incremental cost

Consumption manufacturing sector

6. To make the following categories of costs eligible and to include them in the cost calculation associated with the phase-down of HFCs in the consumption manufacturing sector:

- (a) Incremental capital costs (ICCs);
- (b) Incremental operating costs (IOCs) for a duration to be determined by the Executive Committee;
- (c) Technical assistance activities;
- (d) Research and development, when required to adapt and optimize alternatives to HFCs with low or zero GWP;
- (e) Costs of patents and designs, and incremental costs of royalties, when necessary and cost-effective;
- (f) Costs of the safe introduction of flammable and toxic alternatives.

Production sector

7. To make the following categories of costs eligible and to include them in the cost calculation associated with the phase-down of HFCs in the production sector:

- (a) Lost profit due to the shutdown/closure of production facilities, as well as production reduction;
- (b) Compensation for displaced workers;
- (c) Dismantling of production facilities;
- (d) Technical assistance activities;
- (e) Research and development related to the production of low-GWP or zero-GWP alternatives to HFCs with a view to lowering the costs of alternatives;
- (f) Costs of patents and designs or incremental costs of royalties;
- (g) Costs of converting facilities to produce low-GWP or zero-GWP alternatives to HFCs when technically feasible and cost-effective;
- (h) Costs of reducing emissions of HFC-23, a by-product from the production process of HCFC-22, by reducing its emission rate in the process, destroying it from the off-gas, or by collecting and converting it to other environmentally safe chemicals; such costs should be funded by the Multilateral Fund to meet the obligations of Article 5 Parties specified under the Amendment.

Refrigeration servicing sector

8. To make the following categories of costs eligible and to include them in the cost calculation associated with the phase-down of HFCs in the refrigeration servicing sector:

- (a) Public-awareness activities;
- (b) Policy development and implementation;
- (c) Certification programmes and training of technicians on safe handling, good practice and safety in respect of alternatives, including training equipment;
- (d) Training of customs officers;
- (e) Prevention of illegal trade of HFCs;
- (f) Servicing tools;
- (g) Refrigerant testing equipment for the refrigeration and air-conditioning sector;
- (h) Recycling and recovery of HFCs.

Energy efficiency

Capacity building to address safety

Disposal

Eligibility of Annex F substances subject to high ambient temperature exemptions

9. That amounts of Annex F substances that are subject to the high-ambient-temperature exemption are not eligible for funding under the Multilateral Fund while they are exempted for that party.

Annex III

OUTSTANDING ISSUES FOR FURTHER DISCUSSION BY THE EXECUTIVE COMMITTEE ON THE COST GUIDELINES FOR THE PHASE-DOWN OF HFCs (As of the 81st meeting)

I. IN RELATION TO THE COST GUIDELINES

Sustained aggregate reductions

- (a) To use the following methodology [to be proposed by the Executive Committee] for determining the starting point for sustained aggregate reduction in HFC consumption and production, noting that the starting point should be expressed in [[CO₂ equivalent] and~~/or~~ [metric tonnes]]
- (b) [add text for production]

Eligible incremental cost

Refrigeration servicing sector

- (c) [Consideration of paragraph 16 of decision XXVIII/2, [including consideration of maintaining energy efficiency in the servicing/end-user sector]]

Energy efficiency

- (d) [To continue discussing how it wishes to develop cost guidance associated with maintaining and/or enhancing the energy efficiency of low-GWP or zero-GWP replacement technologies and equipment, when phasing down HFCs, [including in the servicing sector [and end-user sector],] after reviewing additional relevant information, including the information provided by the TEAP in its assessment of energy efficiency at the 40th OEWG meeting;]

Capacity building to address safety

Disposal

II. ADDITIONAL WORK TO BE REQUESTED TO THE SECRETARIAT⁴²

In relation to the consumption manufacturing sector

- (a) [The Executive Committee decided to consider at a future meeting to request the Secretariat to undertake additional work, including to determine cost-effectiveness thresholds and thresholds for IOCs for HFC-phase-down activities in the consumption manufacturing sector once progress in the implementation of HFC investment projects has been made;]

In relation to energy efficiency

- (b) [To request the Secretariat to contract an independent consultant to:
 - (i) Prepare, for the [82nd meeting], a document on issues associated with maintaining and/or enhancing the energy efficiency of low-GWP or zero-GWP replacement technologies and equipment when phasing down HFCs, including:
 - a. Incremental costs for maintaining and/or enhancing energy efficiency in the

⁴² Contained in paragraph 46 of document UNEP/OzL.Pro/ExCom/80/55.

- manufacturing and servicing of refrigeration and air-conditioning equipment, including in situ manufacturing;
- b. Pay-back periods and economic benefits associated with energy-efficiency improvements in the refrigeration and air-conditioning sector;
 - c. Possible modalities for funding, including operational modalities for co-funding with other institutions at the national and global level, in order to maintain and/or enhance energy efficiency and address associated challenges in the refrigeration and air-conditioning sector;
 - d. Requirements for establishing minimum energy-efficiency standards, including the testing and verification of energy efficiency in equipment;
 - e. The institutional and regulatory framework needed in Article 5 countries to support and monitor improvements in energy efficiency, including in the refrigeration and air-conditioning servicing sector;
- (ii) Consider, when preparing the document, appropriate standards and directives, such as the four European Union directives for reducing greenhouse gas emissions in Europe on Energy Efficiency, Ecodesign, Energy Performance of Buildings and Industrial Emissions, to determine the best available technologies;
 - (iii) Consider, when preparing the document, the Conference Room Paper submitted by the Government of Austria to the 80th meeting (Appendix to the present Annex);
- (c) To allocate US \$XXX for the preparation of the study.]

III. OTHER GENERAL MATTERS RELATED TO HFC PHASE-DOWN⁴³

- (a) To agree on the following prerequisites for an Article 5 country to access Multilateral Fund funding other than for enabling activities for the phase-down of HFC consumption and production:
 - (i) Ratification, acceptance, or accession to the Kigali Amendment;
 - (ii) Establishment of an agreed starting point for a sustained aggregate reduction in HFC consumption and production, on the understanding that any phase-down of HFCs resulting from any project that might be approved by the Executive Committee would be deducted from the country's starting point;
- (b) [To agree that institutions and capacities in Article 5 countries developed with Multilateral Fund assistance for the phase-out of ODS should be used to the extent possible for the phase-down of HFCs];
- (c) [To agree that the existing policies and guidelines of the Multilateral Fund [where applicable] for funding the phase-out of ODS would be applicable to the funding of HFC phase-down [unless decided otherwise] [as long as agreed upon] by the Executive Committee [taking into account in particular decision XXVIII/2];]

⁴³ As contained in paragraph 43 of document UNEP/OzL.Pro/ExCom/80/55.

Appendix

TEXT FOR DISCUSSION RELATED TO THE DEVELOPMENT OF THE COST GUIDELINES FOR THE PHASE-DOWN OF HFCS IN ARTICLE 5 COUNTRIES: DRAFT CRITERIA FOR FUNDING (DECISIONS 78/3(i) AND 79/44(b))

(A Conference Room Paper submitted by the Government of Austria to the 80th meeting)

Energy Efficiency

1. The Executive Committee may wish to consider the following elements when requesting the Secretariat to do additional work on energy efficiency as proposed by the Government of Austria based on the summary document prepared by the Chair at the 78th meeting.

- (a) Prepare, for the [81st meeting], a document on issues associated with maintaining and/or enhancing the energy efficiency of low-GWP or zero-GWP replacement technologies and equipment when phasing down HFCs, including:
 - (i) Inventory of energy efficiency activities already undertaken and /or funded by GEF and GCF and implementing agencies, in the refrigeration, heat-pump, and air-conditioning and production sectors; including typical level of funding, co-financing committed Pay-back periods and economic benefits associated with energy-efficiency and estimate or range of cost effectiveness;
 - (ii) Cost guidance, methodologies, processes, monitoring, verification associated with energy efficiency interventions of other institutions, especially GEF and GCF;
 - (iii) Identification of costs for maintaining and/or enhancing energy efficiency in the manufacturing and servicing of refrigeration and air-conditioning equipment, including in situ manufacturing;
 - (iv) Possible modalities for funding, including operational modalities for co-funding and/or cooperation/coordination with other institutions at the national and global level, in order to maintain and/or enhance energy efficiency and address associated challenges and address associated challenges in the production sector and the refrigeration and air-conditioning sectors;
 - (v) Examples of minimum energy-efficiency standards and labelling, including the Requirements for establishing them and ensuring the testing and verification of energy efficiency in equipment;
 - (vi) The institutional and regulatory framework needed in Article 5 countries to support and monitor improvements in energy efficiency, including in the refrigeration and air-conditioning servicing sector; and
- (b) To consider, when preparing the document, appropriate standards, such as LEED and BREEAM, and directives, such as the four European Union directives for reducing greenhouse gas emissions in Europe on Energy Efficiency, Eco-design, Energy Performance of Buildings and Industrial Emissions, to determine the best available technologies.

Annex IV

HPMPs AND HPPMPs APPROVED

Country	To be implemented by	Total phase-out ODP tonnes	Funding approved in principle (US \$)		
			Project funds	Support costs	Total
HCFC Phase Out Plan (Stage I)					
Afghanistan	UNEP	8.26	398,825	51,847	450,672
	Germany		37,062	4,818	41,880
	UNIDO		243,214	21,889	265,103
Albania	UNIDO	2.10	230,000	20,700	250,700
	UNEP		85,000	11,050	96,050
Algeria	UNIDO	14.48	1,993,331	152,731	2,146,062
Angola	UNDP	1.59	176,000	15,840	191,840
Antigua and Barbuda	UNEP	0.03	51,700	6,721	58,421
Argentina	UNIDO	83.53	9,560,542	714,843	10,275,385
	IBRD		914,612	68,596	983,208
	Italy		300,000	39,000	339,000
Armenia	UNDP	2.23	562,838	42,213	605,051
	UNEP		39,000	5,070	44,070
Bahamas	UNEP	1.68	156,900	20,397	177,297
	UNIDO		151,420	13,628	165,048
Bahrain	UNEP	23.21	470,000	61,100	531,100
	UNIDO		2,338,985	163,729	2,502,714
Bangladesh	UNDP	24.53	1,201,074	90,081	1,291,155
	UNEP		355,000	46,150	401,150
Barbados	UNEP	1.29	192,000	24,960	216,960
	UNDP		88,000	7,920	95,920
Belize	UNEP	0.98	213,500	27,755	241,255
	UNDP		66,500	5,985	72,485
Benin	UNEP	8.33	370,000	48,100	418,100
	UNIDO		260,000	19,500	279,500
Bhutan	UNEP	0.30	282,000	36,660	318,660
	UNDP		188,000	16,920	204,920
Bosnia and Herzegovina	UNIDO	6.58	953,284	69,886	1,023,170
Bolivia	Germany	2.13	94,500	12,285	106,785
	UNIDO		220,500	19,845	240,345
Botswana	UNEP	3.85	280,000	36,400	316,400
	UNIDO		280,000	19,600	299,600
Brazil	UNDP	220.30	15,326,957	1,149,522	16,476,479
	Germany		4,090,909	460,000	4,550,909
Brunei Darussalam	UNEP	2.14	183,000	23,790	206,790
	UNDP		132,000	11,880	143,880
Burkina Faso	UNEP	6.30	390,000	50,700	440,700
	UNIDO		240,000	21,600	261,600
Burundi	UNEP	0.73	172,000	22,360	194,360
	UNIDO		160,000	14,400	174,400
Cambodia	UNEP	15.00	950,000	123,500	1,073,500
	UNDP		650,000	48,750	698,750
Cameroon	UNIDO	20.50	1,182,725	88,704	1,271,429
Cape Verde	UNEP	0.09	160,000	20,800	180,800
Central African Republic	UNEP	4.20	310,000	40,300	350,300
	UNIDO		250,000	18,750	268,750
Chad	UNEP	5.63	325,000	42,250	367,250
	UNIDO		235,000	17,625	252,625
Chile	UNDP	22.00	1,497,966	112,347	1,610,313
	UNEP		288,489	37,504	325,993
China - Industrial, Commercial and Air Conditioning (ICR)	UNDP	3,385.83	61,000,000	4,396,900	65,396,900
China - XPS Foam	Germany		1,350,000	158,500	1,508,500
China - XPS Foam	UNIDO		48,650,000	3,512,360	52,162,360

Country	To be implemented by	Total phase-out ODP tonnes	Funding approved in principle (US \$)		
			Project funds	Support costs	Total
China - PU Foam	IBRD		73,000,000	5,303,870	78,303,870
China - Room Air Conditioning (RAC)	UNIDO		75,000,000	5,432,150	80,432,150
China - Servicing Sector, including enabling	UNEP		5,240,000	586,400	5,826,400
China - Servicing Sector, including enabling	Japan		400,000	52,000	452,000
China - National Co-ordination	UNDP		360,000	27,000	387,000
China - Solvent	UNDP		5,000,000	362,500	5,362,500
Colombia	UNDP	78.91	6,721,483	504,111	7,225,594
	UNEP		100,000	13,000	113,000
Comoros	UNEP	0.05	160,000	20,800	180,800
Congo	UNEP	3.55	175,000	22,750	197,750
	UNIDO		175,000	15,750	190,750
Congo, DR	UNEP	5.80	235,000	30,550	265,550
	UNDP		240,000	21,600	261,600
Cook Islands	UNEP	0.02	99,000	12,871	111,871
Costa Rica	UNDP	18.93	1,153,523	86,514	1,240,037
Cote D'Ivoire	UNEP	22.33	905,740	109,631	1,015,371
	UNIDO		920,000	66,700	986,700
Croatia	UNIDO	8.10	871,150	65,336	936,486
	Italy		210,000	27,300	237,300
Cuba	UNDP	19.26	1,747,527	131,065	1,878,592
Djibouti	UNEP	0.24	164,500	21,385	185,885
Dominica	UNEP	0.08	164,500	21,385	185,885
Dominican Republic	UNDP	27.14	1,646,225	123,467	1,769,692
	UNEP		50,000	6,500	56,500
Ecuador	UNIDO	28.03	2,278,159	168,703	2,446,862
	UNEP		115,000	14,950	129,950
Egypt	UNIDO	174.00	2,325,415	174,406	2,499,821
	UNDP		6,195,400	469,193	6,664,593
El Salvador	UNDP	9.03	699,277	52,446	751,723
	UNEP		375,000	11,700	386,700
Equatorial Guinea	UNEP	2.20	165,000	21,450	186,450
	UNIDO		150,000	13,500	163,500
Eritrea	UNEP	0.38	90,000	11,700	101,700
	UNIDO		120,000	10,800	130,800
Ethiopia	UNEP	1.92	175,000	22,750	197,750
	UNIDO		140,000	12,600	152,600
Fiji	UNDP	2.02	189,500	17,055	206,555
	UNEP		125,500	16,316	141,816
Gabon	UNEP	10.57	290,100	37,713	327,813
	UNIDO		249,900	22,491	272,391
Gambia	UNEP	0.52	110,000	14,300	124,300
	UNIDO		100,000	9,000	109,000
Georgia	UNDP	2.33	500,900	37,568	538,468
Ghana	UNDP	26.27	1,031,311	77,348	1,108,659
	Italy		325,000	42,250	367,250
Grenada	UNEP	0.20	135,000	17,550	152,550
	UNIDO		75,000	6,750	81,750
Guatemala	UNIDO	4.30	345,637	25,923	371,560
	UNEP		96,500	12,546	109,046
Guinea	UNEP	7.91	327,000	42,510	369,510
	UNIDO		320,000	24,000	344,000
Guinea-Bissau	UNEP	0.99	165,000	21,450	186,450
	UNIDO		115,000	10,350	125,350
Guyana	UNEP	0.18	18,000	2,340	20,340
	UNDP		48,000	4,320	52,320
Haiti	UNEP	1.26	182,881	23,775	206,656
	UNDP		97,119	8,741	105,860
Honduras	UNIDO	6.97	380,000	28,500	408,500
	UNEP		250,000	32,500	282,500

Country	To be implemented by	Total phase-out ODP tonnes	Funding approved in principle (US \$)		
			Project funds	Support costs	Total
India	UNDP	341.77	18,438,490	1,340,694	19,779,184
	UNEP		861,600	104,776	966,376
	Germany		1,994,400	229,384	2,223,784
Indonesia	UNDP	135.00	8,901,102	667,583	9,568,685
	Australia		300,000	39,000	339,000
	IBRD		2,714,187	203,564	2,917,751
	UNIDO		777,395	58,305	835,700
Iran	UNDP	164.40	4,340,246	325,518	4,665,764
	UNEP		262,000	34,060	296,060
	UNIDO		2,506,277	187,971	2,694,248
	Germany		2,885,815	327,440	3,213,255
Iraq	UNEP	14.98	660,000	82,600	742,600
	UNIDO		520,000	39,000	559,000
Jamaica	UNDP	8.10	578,450	43,384	621,834
	UNEP		77,000	10,010	87,010
Jordan	UNIDO	25.51	2,259,217	170,824	2,430,041
	IBRD		1,070,100	79,823	1,149,923
Kenya	France	11.63	900,000	109,000	1,009,000
Kiribati	UNEP	0.02	109,000	14,171	123,171
Korea, DPR	UNIDO	20.03	838,247	58,678	896,925
	UNEP		10,303	1,339	11,642
Kuwait	UNEP	239.15	1,043,000	124,730	1,167,730
	UNIDO		8,861,677	638,005	9,499,682
Kyrgyzstan	UNDP	1.02	52,800	4,752	57,552
	UNEP		35,200	4,576	39,776
Lao, DPR	UNEP	0.80	235,000	30,550	265,550
	France		45,000	5,850	50,850
Lebanon	UNDP	24.51	2,495,109	187,133	2,682,242
Lesotho	Germany	1.23	280,000	36,400	316,400
Liberia	Germany	1.85	315,000	40,950	355,950
Libya	UNIDO	26.51	1,908,843	133,619	2,042,462
Macedonia, FYR	UNIDO	2.18	1,166,955	87,522	1,254,477
Madagascar	UNEP	6.00	300,000	39,000	339,000
	UNIDO		260,000	19,500	279,500
Malawi	UNEP	3.78	230,000	29,900	259,900
	UNIDO		120,000	10,800	130,800
Malaysia	UNDP	111.85	9,587,470	719,060	10,306,530
Maldives	UNEP	3.70	680,000	88,400	768,400
	UNDP		420,000	31,500	451,500
Mali	UNEP	5.20	280,000	36,400	316,400
	UNDP		280,000	21,000	301,000
Marshall Islands	UNEP	0.08	113,000	14,690	127,690
Mauritania	UNEP	4.46	302,500	39,325	341,825
	UNDP		305,000	21,350	326,350
Mauritius	Germany	8.00	950,000	114,500	1,064,500
Mexico	UNIDO	428.20	4,412,195	330,915	4,743,110
	UNDP		13,654,016	1,024,051	14,678,067
Micronesia	UNEP	0.05	112,000	14,560	126,560
Moldova, Rep	UNDP	0.10	88,000	7,920	95,920
Mongolia	UNEP	1.00	236,000	30,680	266,680
	Japan		130,000	16,900	146,900
Montenegro	UNIDO	0.28	404,500	30,338	434,838
Morocco	UNIDO	16.77	1,286,740	96,506	1,383,246
Mozambique	UNEP	2.27	165,000	21,450	186,450
	UNIDO		150,000	13,500	163,500
Myanmar	UNEP	1.50	220,000	28,600	248,600
	UNIDO		60,000	5,400	65,400
Namibia	Germany	8.40	900,000	109,000	1,009,000
Nauru	UNEP	0.003	74,000	9,620	83,620

Country	To be implemented by	Total phase-out ODP tonnes	Funding approved in principle (US \$)		
			Project funds	Support costs	Total
Nepal	UNEP	0.64	126,000	16,380	142,380
	UNDP		84,000	7,560	91,560
Nicaragua	UNEP	2.69	108,000	14,040	122,040
	UNIDO		222,000	19,980	241,980
Niger	UNIDO	5.60	285,000	21,375	306,375
	UNEP		275,000	35,750	310,750
Nigeria	UNDP	90.10	2,999,750	224,981	3,224,731
	UNIDO		1,939,080	145,431	2,084,511
Niue	UNEP	0.003	73,000	9,490	82,490
Oman	UNIDO	6.79	349,120	26,184	375,304
	UNEP		85,000	11,050	96,050
Pakistan	UNIDO	79.10	5,008,849	375,664	5,384,513
	UNEP		440,000	57,200	497,200
Palau	UNEP	0.06	120,000	15,600	135,600
Panama	UNDP	4.78	265,545	19,916	285,461
	UNEP		70,000	9,100	79,100
Papua New Guinea	Germany	3.40	1,250,000	147,500	1,397,500
Paraguay	UNEP	6.28	330,000	42,900	372,900
	UNDP		300,000	22,500	322,500
Peru	UNDP	3.74	232,671	20,940	253,611
	UNEP		50,000	6,500	56,500
Philippines	UNEP	45.00	230,000	29,900	259,900
	UNIDO		1,770,650	132,799	1,903,449
	Japan		317,350	41,256	358,606
Qatar	UNIDO	57.86	1,726,600	129,495	1,856,095
	UNEP		310,000	40,300	350,300
Region: ASP	UNEP		285,000	37,050	322,050
Rwanda	UNEP	1.44	170,000	22,100	192,100
	UNIDO		110,000	9,900	119,900
Saint Kitts and Nevis	UNEP	0.18	124,500	16,185	140,685
	UNDP		40,000	3,600	43,600
Saint Lucia	UNEP	0.38	82,650	10,745	93,395
	UNIDO		127,350	11,462	138,812
Saint Vincent and the Grenadines	UNEP	0.28	345,800	44,954	390,754
	UNIDO		124,115	11,170	135,285
Samoa	UNEP	0.09	148,500	19,306	167,806
Sao Tome and Principe	UNEP	0.05	160,000	20,800	180,800
Saudi Arabia	UNIDO	703.29	12,480,171	882,206	13,362,377
	UNEP		720,800	89,289	810,089
	Japan		220,000	28,600	248,600
Senegal	UNIDO	7.34	330,000	24,750	354,750
	UNEP		300,000	38,887	338,887
Serbia	UNIDO	2.94	897,760	67,333	965,093
	UNEP		75,500	9,815	85,315
Seychelles	Germany	1.40	600,000	76,000	676,000
Sierra Leone	UNEP	0.58	110,000	14,300	124,300
	UNIDO		100,000	9,000	109,000
Solomon Islands	UNEP	0.67	195,000	25,351	220,351
Somalia	UNIDO	5.75	315,000	22,050	337,050
South Africa	UNIDO	176.72	6,533,556	457,349	6,990,905
South Sudan	UNEP	0.57	120,000	15,600	135,600
	UNDP		90,000	8,100	98,100
Sri Lanka	UNDP	4.76	398,866	29,915	428,781
	UNEP		249,000	32,370	281,370
Sudan	UNIDO	16.15	1,456,341	108,476	1,564,817
Suriname	UNEP	0.69	104,000	13,520	117,520
	UNIDO		106,000	9,540	115,540
Swaziland	UNEP	6.19	210,000	27,300	237,300
	UNDP		667,948	50,096	718,044

Country	To be implemented by	Total phase-out ODP tonnes	Funding approved in principle (US \$)		
			Project funds	Support costs	Total
Tanzania	UNEP	0.59	110,000	14,300	124,300
	UNIDO		100,000	9,000	109,000
Thailand	IBRD	234.73	17,805,665	1,246,397	19,052,062
	Japan		302,965	39,385	342,350
Timor Leste	UNEP	0.05	164,900	21,437	186,337
	UNDP		106,800	9,612	116,412
Togo	UNEP	7.00	280,000	36,400	316,400
	UNIDO		350,000	26,250	376,250
Tonga	UNEP	0.05	127,000	16,511	143,511
Trinidad and Tobago	UNDP	17.90	1,462,733	109,705	1,572,438
Tunisia	UNIDO	10.60	1,100,195	77,014	1,177,209
	UNEP		100,000	13,000	113,000
	France		600,000	76,000	676,000
Turkey	UNIDO	507.87	14,120,090	1,026,975	15,147,065
	UNEP		103,450	13,449	116,899
Turkmenistan	UNIDO	2.38	652,050	48,904	700,954
Tuvalu	UNEP	0.03	92,000	11,960	103,960
Uganda	UNEP	0.07	84,500	10,985	95,485
	UNIDO		80,000	7,200	87,200
Uruguay	UNDP	4.18	380,004	28,500	408,504
Vanuatu	UNEP	0.10	148,500	19,306	167,806
Venezuela	UNIDO	23.16	1,772,068	132,905	1,904,973
	UNEP		122,432	15,916	138,348
Vietnam	IBRD	143.20	9,125,020	684,377	9,809,397
Yemen	UNEP	63.28	380,000	49,400	429,400
	UNIDO		410,000	28,700	438,700
Zambia	UNEP	1.70	175,000	22,750	197,750
	UNIDO		140,000	12,600	152,600
Zimbabwe	Germany	12.34	1,038,818	124,270	1,163,088
HCFC Phase Out Plan (Stage II)					
Angola	UNDP	9.18	904,000	63,280	967,280
Argentina	UNIDO	115.19	9,691,238	678,387	10,369,625
	Italy		250,000	32,500	282,500
Armenia	UNDP	3.26	129,600	11,664	141,264
	UNEP		86,400	11,232	97,632
Bangladesh	UNDP	24.01	5,356,014	374,921	5,730,935
	UNEP		534,680	68,815	603,495
Brazil	UNDP	464.06	16,770,000	1,173,900	17,943,900
	UNIDO		11,216,697	785,169	12,001,866
	Germany		7,727,273	860,000	8,587,273
	Italy		250,000	32,500	282,500
Chile	UNDP	49.52	2,145,047	150,153	2,295,200
	UNEP		218,270	28,375	246,645
	UNIDO		1,030,700	72,149	1,102,849
China - PU Foam	IBRD	8,715.83	141,471,210	9,230,854	150,702,064
China - XPS Foam	UNIDO		111,701,495	7,298,173	118,999,668
China - XPS Foam	Germany		1,085,135	129,366	1,214,501
China - Industrial, Commercial and Air Conditioning (ICR)	UNDP		89,144,797	5,861,256	95,006,053
China - Room Air Conditioning (RAC)	UNIDO		88,252,905	5,809,794	94,062,699
China - Room Air Conditioning (RAC)	Italy		891,892	108,108	1,000,000
China - Solvent	UNDP		47,262,566	3,086,177	50,348,743
China - Servicing Sector, including enabling	UNEP		18,890,000	2,087,901	20,977,901
China - Servicing Sector, including enabling	Germany		1,000,000	120,000	1,120,000
China - Servicing Sector, including enabling	Japan		400,000	52,000	452,000
Colombia	UNDP	122.30	4,503,481	315,243	4,818,724
	UNEP		175,000	22,750	197,750
	Germany		543,000	69,730	612,730
Dominican Republic	UNDP	15.36	1,279,558	89,569	1,369,127

Country	To be implemented by	Total phase-out ODP tonnes	Funding approved in principle (US \$)		
			Project funds	Support costs	Total
	UNEP		195,000	25,350	220,350
Egypt	UNIDO	146.97	5,996,841	419,779	6,416,620
	UNDP		3,695,722	258,701	3,954,423
	UNEP		1,055,000	126,049	1,181,049
	Germany		207,300	26,949	234,249
Guyana	UNEP	1.62	242,500	31,525	274,025
	UNDP		441,500	30,906	472,406
India	UNDP	769.49	38,911,459	2,723,802	41,635,261
	UNEP		900,000	108,999	1,008,999
	Germany		5,100,000	571,000	5,671,000
Indonesia	UNDP	84.33	4,047,000	283,290	4,330,290
	IBRD		4,255,163	297,861	4,553,024
Iran	UNDP	162.37	4,905,361	343,376	5,248,737
	UNIDO		2,103,205	147,225	2,250,430
	UNEP		700,000	87,000	787,000
	Germany		2,672,404	303,964	2,976,368
	Italy		907,207	109,793	1,017,000
Jordan	IBRD	44.79	2,075,236	145,267	2,220,503
	UNIDO		999,455	69,961	1,069,416
Kenya	France	21.78	1,763,850	204,023	1,967,873
Kyrgyzstan	UNDP	3.08	400,000	28,000	428,000
	UNEP		312,000	40,560	352,560
Lebanon	UNDP	36.70	4,203,826	294,267	4,498,093
Malaysia	UNDP	146.24	6,138,063	429,665	6,567,728
Mexico	UNIDO	516.90	7,772,590	544,082	8,316,672
	Germany		650,000	81,500	731,500
	Italy		458,191	59,565	517,756
	UNEP		80,000	10,400	90,400
	Spain		2,126,991	243,969	2,370,960
Moldova, Rep	UNDP	0.25	122,300	11,007	133,307
	UNEP		52,200	6,786	58,986
Oman	UNIDO	5.32	285,000	19,950	304,950
	UNEP		200,000	26,000	226,000
Nigeria	UNDP	140.27	8,210,472	574,733	8,785,205
	Italy		503,425	65,377	568,802
	UNIDO		176,837	15,915	192,752
Pakistan	UNIDO	72.98	4,776,772	334,374	5,111,146
	UNEP		503,000	65,330	568,330
Panama	UNDP	9.11	723,654	50,656	774,310
Peru	UNDP	14.40	1,167,000	81,690	1,248,690
	UNEP		208,000	27,040	235,040
Philippines	IBRD	24.59	2,750,057	192,504	2,942,561
Sudan	UNIDO	31.34	2,750,729	192,551	2,943,280
Timor Leste	UNEP	0.34	206,880	26,894	233,774
	UNDP		137,920	12,413	150,333
Uruguay	UNDP	11.05	1,105,157	77,361	1,182,518
Venezuela	UNIDO	64.41	1,967,144	137,700	2,104,844
	UNDP		1,326,420	92,849	1,419,269
Vietnam	IBRD	130.57	14,411,204	1,008,786	15,419,990
	Japan		233,630	30,372	264,002
HCFC Production (Stage I)					
China	IBRD	3,970.00	95,000,000	5,320,000	100,320,000