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**Twenty-First Meeting of the Parties to the
Montreal Protocol on Substances that
Deplete the Ozone Layer**
Port Ghalib, Egypt, 4–8 November 2009

**Report of the Twenty-First Meeting of the Parties to the
Montreal Protocol on Substances that Deplete the Ozone Layer**

Introduction

1. The Twenty-First Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer was held at the International Convention Centre, Port Ghalib, Egypt, from 4 to 8 November 2009. It consisted of a preparatory segment, held from 4 to 6 November, and a high-level segment, held on 7 and 8 November.

Part one: Preparatory segment

I. Opening of the preparatory segment

2. The preparatory segment was opened by its Co-Chairs, Mr. Muhammad Maqsood Akhtar (Pakistan) and Mr. Martin Sirois (Canada), on Wednesday, 4 November 2009, at 10.20 a.m.
3. Opening statements were delivered by Mr. Maged George, Minister of State for Environmental Affairs of Egypt, and Mr. Marco González, Executive Secretary of the Ozone Secretariat.
4. In his statement, Mr. George stressed the importance of the Montreal Protocol as an international environmental treaty and reviewed the process by which it had achieved universal ratification. He said that while much had been done it was necessary to ramp up efforts to protect the ozone layer by, among other things, providing accurate data about quantities of imported restricted substances. National programmes should be implemented to rid the world of ozone-depleting substances and to increase opportunities for action by customs authorities, including through awareness campaigns. Pointing out that the world was watching and anticipating tangible results from the current meeting, he wished the representatives successful deliberations and declared the meeting officially open.
5. The Executive Secretary, thanking the Government of Egypt for hosting the current meeting, pointed out that it was the first meeting since the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol had obtained universal ratification with the accession of Timor-Leste on the International Day for the Preservation of the Ozone Layer, 16 September 2009. The ozone treaties, with 196 Parties, had more Parties than any other treaty in history, and no other treaty with so many Parties had ever achieved universal ratification. He also noted that a second milestone was the impending complete phase-out on 1 January 2010 of the majority of ozone-depleting substances by Parties operating under paragraph 1 of Article 5 of the Protocol. That many developing countries had already achieved that goal demonstrated that, with the right support, developing countries were willing not only to take on weighty obligations but also to exceed them.

6. He went on to review the agenda for the current meeting, pointing out that the workload was heavy and that the Parties would have to discuss such complex issues as the destruction of banks of ozone-depleting substances, amendments to the Protocol and quarantine and pre-shipment applications of methyl bromide. On reporting, he observed that the timeliness of Parties in meeting their reporting obligations had declined somewhat and urged them to do their utmost to meet reporting deadlines. In conclusion, he recalled that the current meeting was a paperless and therefore environmentally beneficial one, and noted that the eighth editions of the Convention and Protocol handbooks had been made available in electronic format only. He wished representatives a successful meeting, drawing attention to the scale of the challenges that would determine the future effectiveness of the Protocol in protecting the ozone layer.

II. Organizational matters

A. Attendance

7. The Twenty-First Meeting of the Parties to the Montreal Protocol was attended by representatives of the following Parties to the Montreal Protocol: Afghanistan, Angola, Argentina, Armenia, Australia, Austria, Bahamas, Bangladesh, Belarus, Belgium, Benin, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Burkina Faso, Cambodia, Cameroon, Canada, Central African Republic, Chad, China, Colombia, Comoros, Congo, Cook Islands, Costa Rica, Côte d'Ivoire, Croatia, Cuba, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, European Community, Fiji, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Haiti, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Lebanon, Lesotho, Liberia, Lithuania, Madagascar, Malawi, Mali, Marshall Islands, Mauritania, Mauritius, Mexico, Micronesia (Federated States of), Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Palau, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Qatar, Republic of Korea, Romania, Russian Federation, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Solomon Islands, Somalia, South Africa, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Tajikistan, Thailand, the former Yugoslav Republic of Macedonia, Timor-Leste, Togo, Tonga, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America, Uruguay, Uzbekistan, Venezuela (Bolivarian Republic of), Viet Nam, Yemen, Zambia, Zimbabwe.

8. A representative of the Occupied Palestinian Territory attended the meeting as an observer.

9. Representatives of the following United Nations bodies and specialized agencies also attended: Food and Agriculture Organization of the United Nations, Secretariat of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Secretariat of the Multilateral Fund for the Implementation of the Montreal Protocol, Secretariat of the United Nations Framework Convention on Climate Change, United Nations Development Programme, United Nations Environment Programme, United Nations Industrial Development Organization, World Bank.

10. The following intergovernmental, non-governmental and industry bodies were also represented: Acme, African Development Co. for Trade, AGRAMKOW/RTI Technologies, Alliance for Responsible Atmospheric Policy, Alliant International University, Arysta Life Science North America Corporation, Asada Corporation, Association of Home Appliance Manufacturers, Alliance for Responsible Atmospheric Policy, Ayona Company, Limited, California Citrus Quality Council, California Strawberry Commission, Center for Air Power Studies, Chemtura Corporation, Chicago Climate Exchange, Daikin Europe NV, Desclean Belgium, DuPont International, Environmental Investigation Agency, Florida Fruit & Vegetable Association/Crop Protection Coalition, Free Trade Company, Green Cooling Association, Green English, Greenpeace International, GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit GmbH), Gujarat Fluorochemicals Limited, ICL Industrial Products, Industrial Technology Research Institute, Insects Limited, Institute for Governance and Sustainable Development, International Institute of Refrigeration, Japan Fluorocarbon Manufacturers Association, Japan Refrigeration and Air Conditioning Industry Association, Johnson Controls, Manitoba Ozone Protection Industry Association, Nordiko Quarantine Systems Pty. Ltd., McQuay International, Mebrom NV, Natural Resources Defense Council, Navin Fluorine International Limited, Research,

Innovation and Incubation Center, Sanyo Electric Co., Ltd, SAW for Trade, Shecco, Sherry Consulting, SRF Limited, The Arab Drug Company, TouchDown Consulting.

B. Officers

11. The preparatory segment of the combined meeting was co-chaired by Mr. Maqsood Akhtar and Mr. Sirosis.

C. Adoption of the agenda for the preparatory segment

12. The following agenda for the preparatory segment was adopted on the basis of the provisional agenda contained in document UNEP/OzL.Pro.21/1:

1. Opening of the preparatory segment:
 - (a) Statements by representative(s) of the Government of Egypt;
 - (b) Statements by representative(s) of the United Nations Environment Programme.
2. Organizational matters:
 - (a) Adoption of the agenda for the preparatory segment;
 - (b) Organization of work.
3. Consideration of membership of Montreal Protocol bodies for 2010:
 - (a) Members of the Implementation Committee;
 - (b) Members of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol;
 - (c) Co-Chairs of the Open-ended Working Group.
4. Financial reports of the trust funds for the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer and budgets of the Montreal Protocol.
5. Environmentally sound management of banks of ozone-depleting substances (decision XX/7):
 - (a) Presentation of the final analysis of the task force of the Technology and Economic Assessment Panel;
 - (b) Further consideration of work initiated by the Open-ended Working Group at its twenty-ninth meeting.
6. High-global-warming-potential alternatives to ozone-depleting substances (decision XX/8):
 - (a) Proposed amendment to the Montreal Protocol;
 - (b) Further consideration of work initiated by the Open-ended Working Group at its twenty-ninth meeting.
7. Issues related to essential-use exemptions:
 - (a) Proposal on nominations for essential-use exemptions for 2010 and 2011;
 - (b) Campaign production of chlorofluorocarbons for metered-dose inhalers;
 - (c) Consideration of amendments to the handbook on essential-use nominations (decision XX/3).
8. Issues related to methyl bromide:
 - (a) Presentation by the Technology and Economic Assessment Panel;
 - (b) Consideration of nominations for critical-use exemptions for 2010 and 2011;
 - (c) Quarantine and pre-shipment applications of methyl bromide;
9. Other issues arising out of the report of the Technology and Economic Assessment Panel:

- (a) Alternatives to hydrochlorofluorocarbons in the refrigeration and air-conditioning sectors in Parties operating under paragraph 1 of Article 5 with special conditions (decision XIX/8);
 - (b) Projected regional imbalances in the availability of halons and potential mechanisms for the improved prediction and mitigation of such imbalances (decision XIX/16);
 - (c) Proposal on laboratory and analytical-use exemptions (decisions XVII/10 and XIX/18);
 - (d) Proposal on process agents (decision XVII/6 and paragraph 100 of the report of the Twentieth Meeting of the Parties);
 - (e) Proposal on potential further work on carbon tetrachloride emissions;
 - (f) Other issues arising out of the Panel's reports.
10. Issues related to the financial mechanism of the Montreal Protocol:
- (a) Proposal on terms of reference for an evaluation of the financial mechanism;
 - (b) Proposal on institutional strengthening activities under the Multilateral Fund.
11. Compliance and data reporting issues:
- (a) Proposal on the treatment of stockpiled ozone-depleting substances relative to compliance (decision XVIII/17);
 - (b) Presentation on and consideration of the work and recommended decisions of the Implementation Committee.
12. Other matters.

13. During the adoption of the agenda for the preparatory segment, the Parties agreed to take up under agenda item 12, "Other matters", a proposal by Indonesia pertaining to the special conditions facing Timor-Leste as a new Party.

D. Organization of work

14. The Parties agreed to follow their customary procedure and to establish contact groups as necessary.

III. Consideration of membership of Montreal Protocol bodies for 2010

A. Members of the Implementation Committee

B. Members of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol

C. Co-Chairs of the Open-ended Working Group

15. Introducing the item, the Co-Chair recalled that it would be necessary at the current meeting to nominate candidates for several positions in Montreal Protocol bodies for 2010. He requested the regional groups to submit nominations to the Ozone Secretariat. The Parties subsequently agreed on the membership of the Implementation Committee and the Executive Committee and on Co-Chairs of the Open-ended Working Group and approved draft decisions reflecting that agreement for further consideration during the high-level segment.

IV. Financial reports of the trust funds for the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer and budgets of the Montreal Protocol

16. Introducing the item, the Co-Chair noted that it had been the practice at past meetings to establish a budget committee to review budget-related documents and prepare one or more draft

decisions on budgetary matters for consideration by the Meeting of the Parties. Accordingly, the Parties agreed to establish such a committee, to be co-chaired by Mr. Alessandro Giuliano Peru (Italy) and Mr. Ives Enrique Gómez Salas (Mexico).

17. The deliberations in the budget committee highlighted, among other things, the importance of using the cash reserve in the future to enable a soft landing of the total future contributions of the Parties – that is, to increase contributions and decrease the drawdown in a smooth manner that would avoid causing a spike in contributions in any one year – taking into account the current size of the reserve, the reserve fund scenario discussed by the budget committee and the cash reserve composition which the committee would like clarified during the next meeting. Following those deliberations the Parties considered a draft decision prepared by the committee, which they approved for further consideration during the high-level segment.

V. Environmentally sound management of banks of ozone-depleting substances (decision XX/7)

A. Presentation of the final analysis of the task force of the Technology and Economic Assessment Panel

18. Introducing the sub-item, the Co-Chair recalled that by decision XX/7 the Parties had requested the Technology and Economic Assessment Panel to consider a number of issues related to ozone-depleting-substance banks, to present a preliminary report on its findings to the Parties at the twenty-ninth meeting of the Open-ended Working Group and to present a final analysis for consideration by the Twenty-First Meeting of the Parties.

19. Mr. Paul Ashford, Mr. Lambert Kuijpers and Mr. Paulo Vodianitskaia, co-chairs of the task force set up by the Technology and Economic Assessment Panel to respond to decision XX/7, outlined the contents of the final analysis. Mr. Ashford began by presenting a snapshot of the anticipated waste flows in developed and developing countries for 2010. Over 100,000 tonnes of ozone-depleting substances would enter the waste stream in each region; chlorofluorocarbons (CFCs) accounted for a higher proportion in developing countries, although both regions had substantial flows of hydrochlorofluorocarbon (HCFC) refrigerants, while hydrofluorocarbons (HFCs) would be a significant component in developed countries, even as early as 2010. He highlighted the fact that the opportunity for recovery and destruction, and therefore for reducing ozone depletion, was at its greatest in the early years of the review period (2010–2030): upwards of 40,000 ODP-tonnes of ozone-depleting substances would be available annually at the outset but that would decline to less than 20,000 ODP-tonnes by 2015. The potential impact of recovery and destruction on the climate was also at its greatest in the early years of the review period, peaking at above 350 megatonnes of carbon dioxide equivalent annually for refrigerants in developing countries alone.

20. Mr. Kuijpers observed that most end-of-life-equipment programmes would have the ability to manage not only ozone-depleting substances but also substitutes, some of which would have significant climate impacts of their own.

21. Mr. Ashford presented information on the impact of including substitutes in the analysis. He noted that overall flows would increase throughout the review period and that the potential climate benefit from recovery and destruction would be sustained, particularly for refrigerants. The average global-warming potential of refrigerants entering the waste stream in developed countries would be higher than in developing countries, a fact that highlighted the climate challenge posed by accelerated HCFC phase-out under decision XIX/6 with existing alternatives. He also provided information on the peak flows that might need to be accommodated. While global destruction capacity was probably sufficient to accommodate those flows, there could be logistical challenges in transporting ozone-depleting substances to suitable facilities. Good practice would involve minimizing transport distances for equipment and consolidating the substances as soon as practicable.

22. Turning to the climate mitigation costs in the sectors in which destruction could be achieved with low or medium effort, the range for refrigerants was typically \$8–16 per tonne of carbon dioxide equivalent in developed countries but up to more than \$30 per tonne of carbon dioxide equivalent in developing countries, where transport and logistics could be more challenging. In the early years, recovery and destruction in developing countries could be particularly cost-effective (perhaps as low as \$5 per tonne of carbon dioxide equivalent) because of the large CFC component of the mixes reaching the waste stream. Foam recovery costs were significantly higher, rising from less than \$10 per tonne of carbon dioxide equivalent (because of the large CFC component) to more than \$50 per tonne of carbon

dioxide equivalent by 2015, even for the most accessible foams in domestic refrigerators. He concluded that foam recovery would be best conducted in combination with refrigerant recovery.

23. Mr. Vodianitskaia assisted Mr. Ashford in reviewing the conclusions set out in the final analysis. Given the level of financing that would be required for the management and destruction of ozone-depleting substances contained in banks, it was likely that climate-linked funding would be required. They drew attention to the progress being made by the voluntary carbon market in developing protocols and methodologies that could provide funding for destruction. They noted, however, that the capacity of the voluntary markets was constrained, as was the degree to which that capacity could be directed to specific projects, which limited the utility of the voluntary markets. They referred to a number of ideas on forms of hybrid financing through possible pre-compliance mechanisms. In concluding, the task force co-chairs highlighted the value of acting quickly to gain the most benefits at the least cost.

24. Following the Task Force presentation the representative of Brazil pointed out that the data in the Task Force report on ozone-depleting substance banks in Brazil was not recognized as official data. In response to questions from other representatives, the task force co-chairs clarified a number of issues. Mr. Ashford explained that the focus of the study was on future flows of ozone-depleting substance wastes but not specifically on contaminated or unwanted ozone-depleting substances. Some relevant information on such substances had been gathered, however, for a study requested by the Executive Committee in 2006, and the Panel could examine the issue if requested to do so by Parties. Mr. Vodianitskaia said that the use of both automated and semi-automated technologies for the recovery of ozone-depleting refrigerants were considered in the study. With regard to potential financing options, Mr. Ashford said that justifications existed for pursuing recapture and destruction strategies for ozone-depleting substances present in many types of banks, and suggested that revenue generated by the destruction of relatively accessible substances could be used to fund more challenging destruction efforts.

25. The Parties took note of the final analysis.

B. Further consideration of work initiated by the Open-ended Working Group at its twenty-ninth meeting

26. Introducing the sub-item, the Co-Chair recalled that in accordance with decision XX/7, the Secretariat had convened a one-day workshop on the management and destruction of banks of ozone-depleting substances immediately before the twenty-ninth meeting of the Open-ended Working Group. The workshop, along with the preliminary report of the Technology and Economic Assessment Panel referred to in the preceding section and a report by the Secretariat on funding options, had contributed to a robust discussion on the issue of banks during the Working Group meeting, as reflected in the report of that meeting. In a contact group established at that meeting several ideas had been put forward on further actions that might be taken on the management and destruction of banks of ozone-depleting substances. Those initial ideas had been recorded in a report of the contact group and were set out in annex I to document UNEP/OzL.Pro.21/2. The Co-Chair suggested that at the current meeting the Parties should discuss the ideas developed during the meeting of the Open-ended Working Group, the Technology and Economic Assessment Panel report and a draft decision on destruction of ozone-depleting substances in banks that had been submitted by the United States of America.

27. The representative of the United States introduced his Government's draft decision, noting that the destruction of existing ozone-depleting substances present in banks would make a positive contribution both to protecting the ozone layer and to mitigating climate change. He said that some of the central challenges of destroying ozone-depleting substances under the Protocol included creating incentives to encourage effective and efficient destruction, avoiding the creation of perverse incentives and developing measures appropriate to the Protocol, given that its focus was on eliminating production and consumption rather than destruction. The draft decision sought to develop a practical way forward, taking into account the diverse opinions expressed at the working group meeting.

28. All the representatives taking the floor thanked the Technology and Economic Assessment Panel for its analysis (as discussed in section A above). Many said that the report made clear that the potential emissions from ozone-depleting-substance banks represented a significant threat to both the ozone layer and the climate system. A number of suggestions were offered for further analyses that could be conducted by the Panel, the Executive Committee of the Multilateral Fund or the Parties themselves. One representative said that the estimated costs in the Panel's report were based on the unrealistic assumption that all ozone-depleting substances entering the waste stream would be destroyed.

29. Several representatives called for the immediate adoption of specific short-term and long-term strategies for managing ozone-depleting-substance banks, for providing support through the Multilateral Fund to increase the number and scope of ozone-depleting-substance destruction projects and for supporting Parties in their efforts to strengthen their capacity to manage banks. Others, however, agreed that the Parties needed to tackle the issue but suggested that more study was needed before a long-term approach could be adopted. Some called for the adoption of initial measures, to be augmented as more was learned. One representative said that activities relating to the destruction of contaminated and unwanted ozone-depleting substances should be prioritized.

30. Many representatives observed that there were links between ozone-depleting-substance banks and destruction and other environmental issues. They said that the Parties and the Ozone Secretariat should continue to seek dialogue with the Global Environment Facility, the World Bank and the Parties and secretariats of other relevant multilateral environment agreements to explore synergies on the issue, including in respect of funding.

31. A number of representatives said that the draft decision submitted by the United States offered a useful basis for further discussion.

32. The representative of Colombia submitted a conference room paper setting out another draft decision on the destruction of ozone-depleting substances in banks.

33. The Parties agreed to establish a contact group, to be co-chaired by Ms. Annie Gabriel (Australia) and Mr. Mazen K. Hussein (Lebanon), to continue considering the issue, taking into account the results of the Open-ended Working Group contact group, the draft decisions submitted by Colombia and the United States, decision XX/7, the report of the Technology and Economic Assessment Panel and other relevant information.

34. Following its deliberations the contact group presented a draft decision on the environmentally sound management of banks of ozone-depleting substances, which the Parties approved for further consideration during the high-level segment.

VI. High-global-warming-potential alternatives to ozone-depleting substances (decision XX/8)

A. Proposed amendment to the Montreal Protocol

35. The representative of Mauritius introduced an amendment to the Montreal Protocol that his country was proposing together with the Federated States of Micronesia (UNEP/OzL.Pro.21/3, chapter II), explaining that the proposal remained unchanged from the proposal that the two Parties had submitted at the twenty-ninth meeting of the Open-ended Working Group. Welcoming a proposal to amend the Protocol by Canada, Mexico and the United States, which added certain elements to the proposal that he was presenting, he said that the issue to which the proposals were directed was an urgent one requiring swift action.

36. The representatives of Canada, Mexico and the United States jointly presented their proposal (UNEP/OzL.Pro.21/3/Add.1). It included what they termed a “phase-down”, or gradual reduction, of HFC production and consumption in both Parties operating under paragraph 1 of Article 5 and those not so operating and was intended to supplement the amendment proposed by the Federated States of Micronesia and Mauritius. It would create a new annex F to the Protocol to include HCFCs, establish as a baseline for those substances the average of 2004–2006 annual production and consumption of HCFCs and HFCs, permit countries seeking to phase out HCFCs to use HFCs in some sectors, establish phase-down schedules, require the licensing of HFC imports and exports, prohibit imports and exports to non-Parties and provide for assistance to developing countries through the Multilateral Fund. The rationale for the proposal was that the use of HFCs and their harmful effects stemmed from their use as alternatives to ozone-depleting substances, that their use was likely to increase and that the Protocol community had both the expertise needed to deal with the issue and a proven record of success. Further, such an amendment would send a useful message to the global community, including especially the private sector, that HFC use was merely a temporary measure pending the development of safe permanent alternatives.

37. In the ensuing discussion, all representatives who took the floor agreed on the impressive achievements of the Montreal Protocol in phasing out CFCs and HCFCs and the need for alternatives to ozone-depleting substances that did not contribute to global warming. It was also generally agreed that there was a need for an analysis of costs and funding arrangements. More information in greater detail

was required, such as comparative studies of the impact of HFCs in relation to other greenhouse gases and the availability and cost of viable alternative substances. Existing alternatives were unsatisfactory, since they suffered from flammability or other limitations, and life-cycle assessments were required. The representative of the European Community referred to a proposal by the European Union under the Climate Change Convention calling for a clause enabling synergies between the Montreal Protocol and the Climate Change Convention and its Kyoto Protocol.

38. There were, however, divergent views as to whether the proposed amendments to the Protocol should move forward. While some representatives advocated moving ahead swiftly, others suggested that the proposals should be developed in more detail based on further discussion and more complete data; still others preferred to await developments at the fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, to take place in Copenhagen in December 2009, and to allow more time for in-depth study.

39. Several representatives of Parties operating under paragraph 1 of Article 5 said that they were reluctant to support the proposals on the grounds that, among other things, existing commitments to phase out HCFCs involved substantial work and should not be compromised. Pointing out that HFCs were currently the main alternative in over 90 per cent of cooling applications, they said that they were loath to consider new measures that would restrict their use. One representative said that such phase-outs could hamstring economic growth in developing countries. Several representatives stressed the need for all countries to be involved in the reduction and phase-out processes. Others expressed doubt about the legality of including non-ozone-depleting substances, such as HFCs, within the Montreal Protocol, given that they were already within the purview of the Kyoto Protocol to the Convention on Climate Change, and expressed a preference for avoiding potential political conflicts in international law by maintaining the status quo.

40. A representative of a non-governmental environmental organization said that neither of the proposed amendments would provide sufficient environmental protection. He urged the Parties to adopt a global phase-out of HFCs by 2020, with a simultaneous phase-out in developed and developing countries, and to provide adequate funding for developing countries. Developing countries would benefit by moving quickly to advanced, environmentally friendly technologies, with funding that might otherwise be unavailable, and by advancing global efforts to combat serious climate change, which would affect them first and most severely. The representative of an industry association whose members marketed ozone-depleting-substance alternatives expressed support for establishing controls on HFCs under the Protocol, saying that there were technologically and economically feasible options, including natural refrigerants. Establishing controls under the Protocol would provide clear indications to industry that would spur additional technical developments.

41. The Parties agreed to establish a contact group, co-chaired by Ms. Laura Berón (Argentina) and Mr. Mikkel Aaman Sorensen (Denmark), to discuss the proposed amendments along with other issues pertaining to high-global-warming-potential alternatives to ozone-depleting substances.

42. Following the deliberations of the contact group its chair reported that members of the group had been unable to reach agreement on a draft decision on the amendment of the Protocol to include HFCs. In the light of that lack of agreement a declaration signed by a number of Parties was subsequently introduced. The declaration was tabled under item 9 of the agenda for the high-level segment of the meeting (Other matters) and is therefore discussed in chapter IX of part II of the present report.

B. Further consideration of work initiated by the Open-ended Working Group at its twenty-ninth meeting

43. Turning to the sub-item, closely related to the preceding one, the Co-Chair recalled that in accordance with decision XX/8 the Secretariat had organized a one-day open-ended dialogue on high-global-warming-potential substitutes for ozone-depleting substances prior to the twenty-ninth meeting of the Open-ended Working Group. The Working Group had discussed the results of the dialogue together with the proposed amendment to the Montreal Protocol submitted by the Federated States of Micronesia and Mauritius discussed above, along with specific proposals put forward by several other Parties. The Working Group had agreed to forward two draft decisions and a list of concepts related to the proposed amendment to the Meeting of the Parties for further consideration. The two draft decisions were set out as draft decisions XXI/[I] and XXI/[J] in chapter I of document UNEP/OzL.Pro.21/3. The list of concepts and questions was available in the report of the Open-ended Working Group and was reproduced in annex II to document UNEP/OzL.Pro.21/2.

44. With reference to key ideas in the draft decisions and the list of concepts, one representative said that sufficient information existed on alternatives to HFCs to allow the Parties to take a decision and to develop processes for gathering additional information to assist the transition away from HFCs. He said that his Government had submitted an information paper to the Secretariat, which would be available later in the meeting, that would provide information relevant to some of the questions raised by representatives during discussion of the proposed amendments. Another representative said that further discussion and clarification of several of the concepts delineated by the Open-ended Working Group during a contact group meeting would help move the discussions forward.

45. As noted in the preceding section, the Parties agreed to establish a contact group, co-chaired by Ms. Berón and Mr. Sorensen, to discuss high-global-warming-potential alternatives to ozone-depleting substances, including the proposed amendments to the Montreal Protocol relating to HFCs discussed in the preceding section.

46. Following its deliberations the contact group presented a draft decision on HCFCs and environmentally sound alternatives, which the Parties approved for further consideration during the high-level segment.

VII. Issues related to essential-use exemptions

A. Proposal on nominations for essential-use exemptions for 2010 and 2011

47. Introducing the sub-item, the Co-Chair recalled that the Technology and Economic Assessment Panel had reviewed nominations for essential-use exemptions for CFCs for metered-dose inhalers for 2010 and 2011 prior to the twenty-ninth meeting of the Open-ended Working Group. The Panel had made various recommendations and a draft decision had been prepared by a contact group set up during that meeting. That draft decision had been forwarded to the current meeting for further consideration and was set out in document UNEP/OzL.Pro.21/3 as draft decision XXI/[H]. The United States, whose nomination of CFCs for use in metered-dose inhalers containing epinephrine as an active ingredient the Panel had been unable to recommend, had submitted a revised nomination, which the Panel had also been unable to recommend. The Co-Chair invited comments with a view to reaching a consensus on the draft decision.

48. The representative of the United States pointed out that the Party's original request for 67 tonnes of CFCs had been revised downwards to 52 tonnes and that following public review the Government had determined that it would no longer seek essential-use exemptions for epinephrine-based metered-dose inhalers after the current round of nominations. He also said that the current nomination took account of stocks of CFCs available to the manufacturer. Efforts to allow for an adequate transition were complicated since there was no direct replacement for epinephrine-based metered-dose inhalers, which were available over the counter. The alternative required a prescription and so was less readily available to patients. One further year was therefore being requested to allow adequate time to educate patients and ensure a safe transition for them.

49. The representative of Pakistan said that the Panel had recommended 34 tonnes for metered-dose inhalers for his country, 100 tonnes less than the amount nominated. That posed a problem as the manufacturer of the alternative had decided to discontinue its production, which was therefore no longer available.

50. One representative noted the efforts of several countries to reduce CFC use in metered-dose inhalers, while pointing out that his country would request no CFCs for essential uses in 2010. Proven alternatives could be used, he said, and phase-out obligations could be met. Another representative explained that his country would contact pharmaceutical companies to undertake an inventory of all CFC stocks. It would also look into alternative substances and would encourage and plan the recycling and reuse of CFCs.

51. The Parties agreed to establish a contact group to discuss the nominations further, to be chaired by Mr. W. L. Sumathipala (Sri Lanka) and Ms. Robyn Washbourne (New Zealand).

52. Subsequently the representative of the Russian Federation introduced a conference room paper containing a draft decision on the Party's 2010 essential-use nomination for the use of CFC-113 for aerospace applications. The Parties agreed that the contact group referred to in the preceding paragraph would also discuss the nomination by the Russian Federation.

53. Following its deliberations the contact group presented a draft decision on 2010 essential-use nominations for the use of CFCs in metered-dose inhalers and a draft decision on the Russian Federation's essential-use nomination for the use of CFCs in the aerospace industry. The Parties approved both draft decisions for further consideration during the high-level segment.

B. Campaign production of chlorofluorocarbons for metered-dose inhalers

54. Under the sub-item Ms. Helen Tope, co-chair of the Medical Technical Options Committee, gave a presentation on the final report of the Technology and Economic Assessment Panel and its Medical Technical Options Committee in response to decision XX/4 on final campaign production of CFCs for metered-dose inhalers. She explained that the Panel and the Committee had previously recommended such final campaign production when they had learned that China could supply itself and that a producer located in Spain could supply enough CFCs to satisfy the essential uses of other Parties operating under paragraph 1 of Article 5. Since that time, however, the European Community had banned the further production of pharmaceutical-grade CFCs, with effect from 1 January 2010. Given that action, she said, it was difficult to predict where CFCs for the production of metered-dose inhalers under essential-use exemptions would be obtained in 2010 and beyond, or whether a coordinated final campaign of production would still be relevant or recommended. The Panel and the Committee would continue to follow developments but would be unable to provide Parties with a detailed response to decision XX/4 until the Parties clarified the CFC production situation.

55. She next outlined estimated CFC requirements for metered-dose inhalers after 2009, production issues for metered-dose-inhaler manufacturers and possible scenarios for the future supply of bulk pharmaceutical-grade CFCs, including single or multiple production facilities, remaining stockpiles that would otherwise be destroyed and the abrupt cessation of CFC-based metered-dose-inhaler manufacture. She suggested that Parties might wish to consider how and where CFCs could be produced for any approved essential-use exemptions for metered-dose inhalers, how to facilitate the use of existing stockpiles that might otherwise be destroyed and a fixed timetable for CFC production at one or more facilities to avoid open-ended production. She emphasized that there was an urgent need to complete the transition to CFC-free inhalers as swiftly as possible to ensure a reliable supply of inhalers.

56. In the ensuing discussion, the representative of the European Community pointed out a factual error in the presentation, noting that the Union had not suddenly decided to cease exports of CFCs in 2010 and that the proposal to halt such exports had originally been tabled in August 2008.

57. Several representatives sought further discussion of the matter. One said that campaign production presented many challenges for industry and patients alike. Cost was a serious issue and a decision was needed at the current meeting, he said, lest his country and others be adversely affected. Another said that multiple production facilities would be needed in the interest of asthma sufferers and other patients. Producers in his country were making CFCs for domestic use and for export to Parties operating under paragraph 1 of Article 5 and wished to continue doing so. A third representative said that information was needed about the quantity of stockpiled pharmaceutical-grade CFCs.

58. The Parties agreed that the contact group set up to consider essential-use nominations would also consider campaign production. The decisions agreed to by the contact group are referred to in section A above.

C. Consideration of amendments to the handbook on essential-use nominations (decision XX/3)

59. Introducing the sub-item, the Co-Chair drew attention to the draft decision set out in document UNEP/OzL.Pro.21/3 (draft decision XXI/G), noting that it contained changes to the handbook on essential-use nominations agreed by the Parties at the twenty-ninth meeting of the Open-ended Working Group in accordance with decision XX/3 and some new changes suggested by the Technology and Economic Assessment Panel. He suggested that discussion should focus on the Panel's suggested new changes.

60. In the ensuing discussion the amendments were generally welcomed. One representative pointed out that the amendments were linked to essential-use nominations and, seconded by another, proposed that they should therefore be discussed in the contact group set up to discuss essential uses and campaign production of CFCs.

61. One representative said that since metered-dose inhalers were extremely important for human health it was difficult to phase out CFCs. Indeed, some developed countries had yet to phase them out after more than 10 years, while in developing countries the effort to do so had only just begun. Some substitutes were unsatisfactory, so final phase-out dates could not be predicted, and developing countries needed time to overcome technical problems. The Open-ended Working Group at its twenty-ninth meeting had discussed important issues for Parties operating under paragraph 1 of Article 5 regarding the export of CFCs for metered-dose inhalers and the further amendment of the handbook on essential-use nominations. Those issues required further discussion in a contact group during the current meeting.

62. The Parties agreed that the contact group set up to consider essential-use nominations and campaign production of CFCs (as discussed in sections A and B above) would also consider the amendments to the handbook.

63. The chair of the contact group subsequently reported that the group had agreed not to recommend adoption of the changes to the essential-use handbook that had been proposed by the Technology and Economic Assessment Panel. Those changes would have called on Parties submitting essential-use nominations to provide additional information along with their nominations, notably in respect of market conditions in Parties to which CFCs would be exported for use in metered-dose inhalers. Parties operating under paragraph 1 of Article 5 had expressed concern in the contact group about their ability to collect the required information and the contact group had accordingly agreed not to recommend the changes. The contact group had also agreed that in cases in which the Medical Technical Options Committee required additional information it should work bilaterally with the Party in question to obtain it. The group recommended that in such cases both the Committee and the Party should refer to decisions X/9, XII/2 and XIV/5, which the contact group felt would be helpful in filling any information gaps.

VIII. Issues related to methyl bromide

A. Presentation by the Technology and Economic Assessment Panel

64. Introducing the sub-item, the Co-Chair invited the representatives of the Technology and Economic Assessment Panel to make a presentation on the final assessment of critical-use nominations and to summarize briefly the presentation that the Panel had given during the workshop on quarantine and pre-shipment uses of methyl bromide held on 3 November 2009.

65. The co-chairs of the Methyl Bromide Technical Options Committee, Mr. Ian Porter, Ms. Marta Pizano, Mr. Mohamed Besri and Ms. Michelle Marcotte, gave the presentation on the final assessment of critical-use nominations, summarizing the findings set out in the report of the Technology and Economic Assessment Panel on evaluations of 2009 critical-use nominations for methyl bromide and related matters.

66. Mr. Besri began the presentation with an overview of the critical-use nominations sought for 2010 and 2011. He noted that since 2005 there had been a progressive trend by all Parties to reduce their nominations both for pre-plant soil and post-harvest uses, although that had occurred at varying rates. The European Community, New Zealand and Switzerland had completely phased out all critical uses. The total number of nominations submitted had fallen from 42 nominations submitted by five Parties in the 2008 round to 36 for the current round. No nominations in the current round had initially been submitted for periods beyond 2011.

67. In the 2009 round, the Committee had considered nominations for 2,885 tonnes of methyl bromide for soil uses and 180 tonnes for post-harvest uses. Compared to 2008, nominations had fallen from 4,740 tonnes for soil uses and 292 tonnes for post-harvest uses. The amount of methyl bromide stocks held by Parties had decreased considerably for all Parties from 2005 to 2008, except for the United States, where stocks stood at over twice the annual nominations by that Party. Information on the location, form, ownership and availability of those stocks was, however, unreported.

68. A workplan for 2011 was then presented showing the tasks and timelines for critical-use nomination assessments and the preparation of the 2010 assessment report.

69. Mr. Porter presented the nominations received for pre-plant soil use of methyl bromide in 2010 and 2011. At the Committee's first meeting, interim recommendations had been made on 27 critical-use nominations for pre-plant soil use submitted by Australia, Canada, Israel, Japan and the United States. In the Committee's final assessment, no change had been made to 20 critical-use exemption interim

recommendations, but seven nominations (one from Australia and six from the United States) had been reassessed after bilateral discussions at the twenty-ninth meeting of the Open-ended Working Group and at the request of the Parties, who had provided new information. Two recommendations had been amended based on new technical data and the submission of an action plan. Consequently, the Committee had recommended 3,591.710 tonnes for soil use in 2010, whereas 92.660 tonnes had not been recommended. For 2011, the Committee had recommended 2,500.814 tonnes and not recommended 343.511 tonnes.

70. He reported that Israel, Japan and the United States had made significant progress in phasing out methyl bromide for the vegetable sectors in the current round, but further reductions for the largest remaining use of methyl bromide (the strawberry fruit nomination by the United States) were of concern. Progress in Japan to meet its action plan to phase out methyl bromide by 2013 would be assisted by the recent registration of methyl iodide.

71. Further reductions in some nominations were restricted by increasing regulation of the use of current alternatives to methyl bromide. A lack of long-term studies for perennial crop uses, and for nursery uses to prove equivalent plant health risk in respect of methyl bromide and alternatives, were preventing the adoption of alternatives for those uses. He also noted that some Parties continued to use high methyl bromide and chloropicrin mixtures when lower mixtures were considered effective. He urged Parties to consider the further adoption of barrier films in key sectors to reduce the amount of methyl bromide for which exemptions were sought, which would be more in line with decision IX/6.

72. Ms. Marcotte reported that good progress was being made in reducing the amounts nominated for critical-use exemptions. For example, Australia had indicated that it did not agree with the Methyl Bromide Technical Option Committee's recommendations but would work with the Committee to come to a mutually acceptable result; Canada had enacted new legislation enabling methyl bromide to be shared between applications in the same sector, thereby reducing the volume of methyl bromide for which nominations were submitted. She went on to give further details of reductions in other Parties.

73. She reported that 180.487 tonnes of methyl bromide had been nominated for critical uses in food processing structures and commodities in 2009. Of that amount, 4.569 tonnes had been recommended for uses in 2010 and 168.356 tonnes in 2011. The total recommendation for critical-use nominations for post-harvest uses was therefore 172.925 tonnes.

74. She drew attention to the critical-use recommendations explained in the Panel's report, summarizing the results and the key reasons for the decisions made. While noting good progress on post-harvest critical-use nominations, she pointed out that some barriers to adoption were hampering progress towards reducing methyl bromide use to zero. Those included the lack of maximum residue limits for fluoride residues resulting from sulphuryl fluoride fumigation in Canada and a failure to expand minimal risk levels in the United States, which hindered the adoption of alternatives by flour and pasta mills and pet food facilities. There was also a lack of registered alternatives for cheese and cured pork that had been infested in storage.

75. She highlighted the risk that current levels of use would persist unless critical-use applicants made extra efforts and the Parties worked with their applicants and regulators to remove barriers. She requested the Parties to ensure funding for Committee members early in 2010 to enable efficient work planning in respect of its assessment report and critical-use nominations.

76. Following the presentations the Co-Chair opened the floor for questions.

77. One representative requested clarification regarding fumigation in flour mills and asked whether the United States was converting to sulphuryl fluoride. The representative of the Methyl Bromide Technical Options Committee confirmed that it was, and that it was also expected to use heat treatment. She noted that the plants there were commercially owned and that their owners were selecting the most suitable method by trial and error.

78. Another representative observed that, according to the Panel, Parties operating under paragraph 1 of Article 5 had consumed a total of 3,115 tonnes of methyl bromide while accounting for three quarters of the world's population. He suggested that the technologies used in those countries could be applied elsewhere and questioned whether many of the uses for which exemptions had been granted should be regarded as critical in a sense that was equivalent to the use of CFCs for metered-dose inhalers. He asked when consumption for such uses would be reduced to zero.

79. The representative of the Methyl Bromide Technical Options Committee responded that situations varied by country or region regarding the registration of fumigants, the inspection of facilities and similar matters. The assessment reports explained in detail the exempt uses and the alternatives

available. The uses were regarded as critical in that pests in foods could affect human health and spread food-borne bacteria.

80. Ms. Pizano then presented the summary of the task force's final report on quarantine and pre-shipment. The task force had found that reported production of methyl bromide for exempted quarantine and pre-shipment uses had been approximately constant on an annual basis, and roughly at the same level as reported consumption, between 1999 and 2007.

81. With regard to consumption trends, she said that in 2007 reported consumption for quarantine and pre-shipment uses in Parties operating under paragraph 1 of Article 5 had for the first time exceeded that in Parties not so operating. Such consumption stood at 24 per cent of total global consumption of methyl bromide in 2000 and 54 per cent in 2007. That could reflect a trend towards increased treatment in countries of origin prior to shipment, increased trade from Parties operating under paragraph 1 of Article 5 at risk of infestation by quarantine pests or the adoption of alternatives in Parties not so operating. The task force had found a discrepancy of some 1,300 tonnes for Parties not operating under paragraph 1 of Article 5 for 2007 between total use estimated by bottom-up analysis and consumption data reported under Article 7. A discrepancy of similar magnitude was apparent in the annual figures for the period 2003–2007.

82. At least 68 per cent of total consumption (88 per cent of identified uses) resulted from five main categories of use: whole logs; pre-plant soil fumigation; wood and wood packaging material; grains; and fresh fruit and vegetables. Alternatives were known for all such uses, although there were specific instances in which those were not registered or were not technically or economically suitable for quarantine and pre-shipment applications.

83. Mr. Jonathan Banks, co-chair of the task force, continued the presentation with a description of available methyl bromide recapture facilities. He said that all existing commercial equipment relied on capture through activated carbon; this could be highly efficient but losses prior to capture reduced overall efficiency. Improved practices could reduce emissions during fumigation in many situations and had the potential to achieve the required control with less applied gas.

84. With regard to barriers to the adoption of alternatives, he drew attention to the need for alternatives to show very high efficacy and for proof that such efficacy was achieved by using a control measure as a single quarantine treatment. Regulations, whether domestic or international, that favoured methyl bromide use posed a major obstacle to the adoption of alternatives although few required its use. The low price of methyl bromide treatments, with minimal infrastructure requirements, provided little incentive to replace or develop replacements for methyl bromide. There was also a specific requirement for many quarantine and pre-shipment treatments to be rapid, limiting the use of some alternatives, particularly for post-entry quarantine.

85. He said that the task force had identified several data gaps in the information available, including incomplete records of production and consumption for quarantine and pre-shipment by Parties prior to 2002, data on the quantities of methyl bromide used for particular applications for 2007 or later for some Parties and the reason for differences between consumption and use over the period 2003–2007.

86. The task force had made preliminary estimates of quantities of methyl bromide for which technically feasible options existed. Sufficient data were available to inform the Parties of the quantities of methyl bromide currently being used for quarantine and pre-shipment, the value of that emissive use and the barriers to its replacement if they should wish to bring quarantine and pre-shipment emissions under some form of control. With the consequences clearly defined, it was the task force's opinion that Parties might wish to consider appropriate measures to control such emissions.

87. The Parties took note of the information presented.

B. Consideration of nominations for critical-use exemptions for 2010 and 2011

88. Introducing the sub-item, the Co-Chair noted that the presentation by the Panel on the issue had shown, in broad terms, the nominations received and the total amounts recommended. At the invitation of the Co-Chair one representative drew attention to a conference room paper submitted by her country, which contained a draft decision on critical-use exemptions for methyl bromide for 2010 and 2011.

89. In the ensuing discussion, several representatives expressed satisfaction with progress in reducing the use of methyl bromide, as demonstrated by the significantly lower amounts for which exemptions had been requested. Some representatives expressed concern, however, at the levels sought in the nominations, the high levels of remaining stocks, what they said was a lack of clarity as to

whether the stockpiles had actually been reduced and whether the amounts nominated and subsequently approved had actually been used and what they described as a lack of political will to move ahead rapidly in phasing out methyl bromide use in some areas. One representative expressed concern at the implications of such behaviour given that it could conflict with the provisions of the Protocol. Another suggested that attention should be paid to integrated pest management, which would reduce the overall number of pests and the need for methyl bromide. Some representatives stressed that proven alternatives existed, but that assertion was countered by one representative who said that not all alternatives were effective in all areas and at the same dosages. The representative of a non-governmental organization pointed out that one Party was using large amounts of methyl bromide and continuing to request substantial exemptions while maintaining considerable stocks.

90. Given the lack of immediate consensus on the matter, the Co-Chair invited interested Parties to undertake informal consultations and to work with the contact group discussing methyl bromide quarantine and pre-shipment issues (as discussed in section C below) in an effort to agree on the terms of the draft decision.

91. Following those consultations the contact group presented a draft decision, which was approved by the Parties for further consideration during the high-level segment.

C. Quarantine and pre-shipment applications of methyl bromide

92. Introducing the sub-item at the invitation of the Co-Chair, Mr. Leslie Smith (Grenada), co-chair of the workshop on quarantine and pre-shipment issues held immediately prior to the current meeting, gave a brief overview of the outcomes of the workshop, as described in document UNEP/OzL.Pro.21/INF/10. He drew attention to the discussions on alternatives to methyl bromide, new technologies, health effects and possible financing through the Multilateral Fund, among other things.

93. In the ensuing discussion, one representative called for technology studies to be undertaken and for support for developing countries, especially in terms of technology transfer, capacity-building and financial resources.

94. The Parties agreed to establish a contact group, to be co-chaired by Mr. Smith and Ms. Federica Fricano (Italy), to discuss further action with regard to quarantine and pre-shipment uses of methyl bromide, taking into account the outcomes of the workshop and the presentation by the Technology and Economic Assessment Panel.

95. During a subsequent discussion of the sub-item, the representative of the European Community introduced a draft decision on quarantine and pre-shipment uses of methyl bromide. The draft took into account information and discussions during the workshop, in addition to comments received from Parties, and contained square brackets to indicate differing views expressed by Parties on some issues.

96. In the ensuing discussion one representative said that her Government would be unable to provide information in accordance with the time frame outlined in the draft decision. Another emphasized the need to provide support to developing countries to eliminate the use of methyl bromide for quarantine and pre-shipment applications. One representative, noting that the draft decision was complex and that there were a number of unresolved issues, suggested that it might be impossible to reach agreement on it during the current meeting. Another highlighted the importance that his Government attached to quarantine and pre-shipment applications as a means of protecting its unique natural environment.

97. The Parties agreed that the contact group established under the item would further consider the draft decision.

98. Following the discussions in the contact group, a draft decision on quarantine and pre-shipment uses of methyl bromide was presented and approved by the Parties for further consideration during the high-level segment.

IX. Other issues arising out of the report of the Technology and Economic Assessment Panel

A. Alternatives to hydrochlorofluorocarbons in the refrigeration and air-conditioning sectors in Parties operating under paragraph 1 of Article 5 with special conditions (decision XIX/8)

99. Introducing the sub-item, the Co-Chair noted that, pursuant to decision XIX/8, the Technology and Economic Assessment Panel had presented the Open-ended Working Group at its twenty-ninth meeting with an interim report on alternatives to HCFCs in the refrigeration and air-conditioning sectors under high-temperature conditions. He drew attention to the complexity of the issues covered in that report and the agreement of the Open-ended Working Group to raise the matter at the current meeting.

100. In the ensuing discussion, several representatives of Parties with high ambient temperatures expressed concern at the lack of satisfactory alternatives in the refrigeration sector and about their countries' abilities to meet targets for the reduction of HCFCs. Another representative raised the issue of the accessibility, affordability and maintenance of new technologies, stressing the need for capacity-building, while a third requested the Panel to undertake an in-depth study of alternative technologies and their possible negative effects.

101. One representative introduced an expert who gave a briefing on new experiments in the use of natural refrigerants, such as carbon and ammonia cascades, and invited representatives to contact the German Technical Cooperation Agency for further details.

102. The Parties took note of the report and requested the Technology and Economic Assessment Panel to take the issues raised into consideration in its future work.

B. Projected regional imbalances in the availability of halons and potential mechanisms for the improved prediction and mitigation of such imbalances (decision XIX/16)

103. Introducing the sub-item, the Co-Chair said that at its twenty-ninth meeting the Open-ended Working Group had considered an initial report by the Technology and Economic Assessment Panel on regional imbalances in respect of halons and gave a summary of the main findings. He explained that the Working Group had agreed that the issue would be considered further at the current meeting.

104. At the invitation of the Co-Chair, the representative of the United States introduced a conference room paper that his country had jointly submitted with Australia and Canada that contained a draft decision on halons. In the ensuing discussion, another representative welcomed the draft decision and endorsed its objectives.

105. The Parties agreed that those and other interested Parties would undertake informal consultations in an effort to agree on the terms of the draft decision.

106. Following those consultations a draft decision on halons was presented and approved by the Parties for further consideration during the high-level segment.

C. Proposal on laboratory and analytical-use exemptions (decisions XVII/10 and XIX/18)

107. Introducing the sub-item, the Co-Chair recalled the lists of laboratory and analytical uses of ozone-depleting substances and alternatives thereto that had been presented to the Open-ended Working Group at its twenty-ninth meeting, which were set out in the 2009 progress report of the Technology and Economic Assessment Panel. At the twenty-ninth meeting a draft decision had been proposed and had since then been updated based on work undertaken during the intersessional period.

108. At the invitation of the Co-Chair, the representative of the European Community introduced a draft decision that the Party had submitted on a global laboratory-and analytical-use exemption (UNEP/OzL.Pro.21/3/Add.2, annex IV).

109. The Parties agreed that interested Parties should undertake informal consultations in an effort to agree on the terms of the draft decision.

110. Following those consultations a draft decision was presented and approved by the Parties for further consideration during the high-level segment.

D. Proposal on process agents (decision XVII/6 and paragraph 100 of the report of the Twentieth Meeting of the Parties)

111. Introducing the sub-item, the Co-Chair said that at its twenty-ninth meeting the Open-ended Working Group had heard reports by the Secretariat of the Multilateral Fund and the Technology and Economic Assessment Panel on issues relating to process agents. Following those presentations, revisions to the list of process agents had been proposed. The Working Group had agreed that work would be undertaken on the list during the intersessional period. A revised draft decision (UNEP/OzL.Pro.21/3/Add 2, annex III) had accordingly been submitted.

112. At the invitation of the Co-Chair, the representative of the European Community introduced the draft decision, which the Party had jointly submitted with Australia and the United States. The Parties approved the draft decision for further consideration during the high-level segment.

E. Proposal on potential further work on carbon tetrachloride emissions

113. The Co-Chair introduced the sub-item, drawing attention to a draft decision on potential further work on carbon tetrachloride emissions set out in the note by the Secretariat (UNEP/OzL.Pro.21/3, draft decision XXI/[C], as revised and reissued in UNEP/OzL.Pro.21/3/Add.2, annex I), which had been submitted by Sweden on behalf of the European Union.

114. The representative of Sweden said that the draft decision required further changes and would soon be ready. Two representatives said that the draft as it stood did not fully incorporate their concerns and proposed that they should work with the proponent in revising the draft. It was agreed that those three Parties would undertake informal consultations and present a revised draft decision for the consideration of the Parties.

115. Following those consultations a draft decision was presented and approved by the Parties for further consideration during the high-level segment.

F. Other issues arising out of the Panel's reports

116. The Co-Chair reported that the Technology and Economic Assessment Panel was proposing Mr. Roberto Peixoto (Brazil) as the new co-chair of the Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee. The Parties endorsed the nomination and agreed that the Secretariat would prepare a draft decision on the matter, which the Parties subsequently approved for further consideration during the high-level segment.

X. Issues related to the financial mechanism of the Montreal Protocol

A. Proposal on terms of reference for an evaluation of the financial mechanism

117. The Co-Chair introduced draft decision XXI/[E], on an evaluation of the financial mechanism of the Montreal Protocol (UNEP/OzL.Pro.21/3). He recalled that that draft decision had been discussed at the twenty-ninth meeting of the Open-ended Working Group, where the Parties had been unable to agree on the dates by which terms of reference for the evaluation should be prepared and when the evaluation should be presented to the Parties.

118. Following the Co-Chair's presentation the Parties agreed to establish a contact group, co-chaired by Mr. David Omotosho (Nigeria) and Ms. Gudi Alkemade (Netherlands), to consider the draft decision further.

119. Following the contact group's deliberations a revised version of the draft decision was presented and approved by the Parties for further consideration during the high-level segment.

120. During discussion of the draft decision the representative of South Africa, speaking on behalf of African countries, drew attention to the capacity constraints faced by those countries. He noted that while African countries were willing to accept the decision as it stood it did not reflect their concerns. Specifically, they would have preferred to finalize the review by 2012 at the latest, as significant work on replenishment was scheduled to be undertaken in 2010 and 2011. In addition, they wished to know

the terms of reference for the basic document and who would propose that document. They also deemed it extremely important for the document to be discussed during meetings of ozone officer networks.

B. Proposal on institutional strengthening activities under the Multilateral Fund

121. The Co-Chair introduced draft decision XXI/[F], on institutional strengthening (UNEP/OzL.Pro.21/3), which had been submitted by the group of Latin American and Caribbean countries at the twenty-ninth meeting of the Open-ended Working Group, where it had been discussed at length. The draft decision would call upon the Executive Committee of the Multilateral Fund to increase funding for institutional strengthening and to extend it beyond 2010.

122. In the ensuing discussion, all representatives who took the floor agreed that institutional strengthening had played an important role in allowing Parties operating under paragraph 1 of Article 5 to meet their commitments to phase out ozone-depleting substances. There was general agreement that funding for institutional strengthening should continue beyond 2010. It was also generally agreed that institutional strengthening projects had facilitated the continuity of ozone-depleting substance phase-out projects and had contributed significantly to the implementation of the Protocol.

123. Several representatives stressed that, as noted in the draft decision, Parties operating under paragraph 1 of Article 5 still had much to do to phase out HCFCs, methyl bromide and other substances, which meant that continued institutional strengthening assistance was essential. One representative said that the Parties should not risk losing the momentum that the Montreal Protocol had generated by failing to extend institutional strengthening. Another called for institutional strengthening to be extended for a further 10 years after 2010.

124. Several representatives said that additional funding should be incorporated into existing HCFC management plans, while others said that the issue was technical in nature and could and should be handled by the Executive Committee of the Multilateral Fund. They called upon the Executive Committee to make proposals and offer guidance on reaching phase-out.

125. Following the discussion the Parties agreed that the contact group established to discuss a possible evaluation of the Protocol's financial mechanism, as discussed in section A above, should also discuss further the draft decision on institutional strengthening.

126. Following the contact group's deliberations a revised draft decision was presented and approved by the Parties for further consideration during the high-level segment.

XI. Compliance and data reporting issues

A. Proposal on the treatment of stockpiled ozone-depleting substances relative to compliance (decision XVIII/17)

127. Introducing the sub-item, the Co-Chair drew attention to the Secretariat's summary of the issue in paragraphs 63–67 of document UNEP/OzL.Pro.21/2. During the twenty-ninth meeting of the Open-ended Working Group, the representative of Sweden, on behalf of the European Union, had proposed a draft decision on the issue, which the Parties agreed to forward to the current meeting on the understanding that further work would be undertaken intersessionally to refine it. The latest version of the draft decision could be found in the note by the Secretariat (UNEP/OzL.Pro.21/3, chapter I, draft decision XXI/[D]).

128. The representative of Sweden, speaking on behalf of the European Union, outlined the draft decision, saying that it reflected consultations with Parties during the previous Open-ended Working Group meeting and comments received from a number of Parties intersessionally.

129. Several representatives expressed the view that the draft decision required further modification. One reiterated her Government's view that it introduced new concepts that would need to be carefully defined before the Parties could agree. Another representative said that the draft decision involved complex technical and legal matters with regard to a matter that did not currently constitute a significant compliance issue.

130. The Parties agreed that interested Parties would undertake informal consultations in an effort to develop a revised proposal for consideration.

131. Following those consultations the representative of Sweden, speaking on behalf of the European Union, said that discussions on the matter had yet to be finalized. Given that the issue was important but complicated, further discussions were required to reach a well-balanced, pragmatic and transparent common understanding. The Union would therefore continue its analysis of the issue with the aim of reaching an agreement. The Parties therefore agreed to place the issue on the agenda of the Twenty-Second Meeting of the Parties, on the understanding that the European Union would continue informal discussions intersessionally.

B. Presentation on and consideration of the work and recommended decisions of the Implementation Committee

132. The President of the Implementation Committee under the Non-Compliance Procedure for the Montreal Protocol, Ms. Washbourne, reported on the work of the Committee's forty-third meeting, which took place on 31 October and 1 November 2009. The full report of the meeting would be available on the Ozone Secretariat's website in due course. The Committee's work had been immensely assisted by the attendance at its meeting of representatives of the Multilateral Fund and its implementing agencies, including the Chair and Vice-Chair of the Fund's Executive Committee. The Implementation Committee had also been pleased to welcome representatives of Bangladesh, Botswana, Eritrea, Mexico and Somalia, who had provided information on the compliance situations of their countries. She also thanked the Ozone Secretariat.

133. The Committee, she said, was very pleased with the excellent progress by Parties in meeting their data reporting and phase-out obligations under the Protocol. The draft decisions that the Committee had agreed to forward for consideration by the Meeting of the Parties were contained in a conference room paper and reflected the Committee's work at its forty-second and forty-third meetings.

134. She then outlined the draft decisions approved by the Committee for consideration by the Meeting of the Parties. The first, on data reporting, listed six Parties that had yet to report ozone-depleting substance consumption and production data for 2008 in accordance with Article 7 of the Protocol. Those six Parties were Angola, Democratic People's Republic of Korea, Latvia, Malta, Nauru and United Arab Emirates. She noted that as only six Parties had not yet reported their data the rate of reporting was very high, with 187 out of 193 Parties having submitted their 2008 data. She also noted that 64 Parties had reported data for 2008 by 30 June 2009 in accordance with decision XV/15, observing that the early submission of data was exceptionally helpful to the work of the Committee.

135. Turning to the reported data she observed that many Parties operating under paragraph 1 of Article 5 had already succeeded in phasing out the consumption of many ozone-depleting substances, in advance of the 1 January 2010 deadline. Ninety-two Parties still consumed some volume of CFCs, but the vast majority consumed no halons, carbon tetrachloride, methyl chloroform or methyl bromide. The data, she said, indicated that the 2010 phase-out target would probably be met.

136. Most of the draft decisions, she noted, pertained to the compliance status of particular Parties. The draft decisions on Bosnia and Herzegovina, Mexico and Somalia recorded those Parties' non-compliance with their phase-out obligations for either CFCs or carbon tetrachloride. In each case the Committee had considered the circumstances that led to the state of non-compliance and examined the action plan that the Party had submitted to the Committee to demonstrate how it intended to return to compliance. The Committee looked forward to the Parties returning speedily to compliance and would monitor their progress carefully during future meetings.

137. Three other draft decisions pertained to three Parties whose data had revealed them to be in non-compliance: that on Saudi Arabia concerned that Party's CFC consumption in 2007, that on Turkmenistan its carbon tetrachloride consumption in 2007, and that on Vanuatu its CFC consumption in 2007 and 2008. In the light of their reported data the Committee had urged the three Parties to submit plans of action to ensure their prompt return to compliance, which the Committee would consider at its next meeting, in 2010.

138. The draft decision pertaining to the Federated States of Micronesia and the draft decision regarding Solomon Islands recorded that the two Parties had fallen into a state of non-compliance in one year but had returned to compliance the following year. The Committee had carefully reviewed both Parties' circumstances, in particular the measures that they had taken to control imports of ozone-depleting substances, and would continue to monitor their progress in future years.

139. The draft decision regarding Bangladesh related to an issue that the Committee and the Parties had discussed at some length during previous meetings. In 2006 Bangladesh had notified the Secretariat that it anticipated falling into non-compliance owing to difficulties in phasing out CFCs used in

metered-dose inhalers. The data subsequently reported by Bangladesh had indeed showed it to be in a state of non-compliance with its CFC consumption obligations for 2007 and 2008.

140. The Committee, however, was pleased to see that Bangladesh was making rapid progress in developing and commercializing non-CFC metered-dose inhalers. Immediately prior to the Committee's forty-third meeting the President of the Committee, the Chair of the Executive Committee and representatives of the Ozone and Multilateral Fund secretariats, UNEP, the United Nations Development Programme (UNDP) and the Medical Technical Options Committee had taken part in a high-level mission to Bangladesh to discuss the Party's situation. The mission participants had attended a ceremony to launch two new CFC-free metered-dose inhalers, and more such launches were anticipated. Bangladesh was also making progress with phasing out CFC use in the refrigeration and air-conditioning sector and it was expected that the Party would consume no more CFCs after 1 January 2010 except in accordance with essential-use exemptions approved by the Parties.

141. The draft decision on systems for licensing the import and export of ozone-depleting substances was the Committee's usual report on the number of Parties that had such systems, which was an obligation for all Parties to the Montreal Amendment. The Committee was pleased to learn that just four Parties to the Amendment had yet to implement licensing systems, including two that had only just ratified it. A further 12 Parties who had not ratified the Amendment had established licensing systems, leaving just 10 Parties to the Protocol without such systems.

142. The final draft decision related to the reporting of data on the consumption of methyl bromide for quarantine and pre-shipment use, which might be affected by related discussions by the Meeting of the Parties. The draft decision recalled that reporting of quarantine and pre-shipment data was required under paragraph 3 of Article 7 of the Protocol and that it was difficult for the Committee to assess Parties' states of compliance properly without such information.

143. The draft decisions, she said, illustrated the different stages of the Protocol's non-compliance procedure. It was worth remembering that the ozone community had built a flexible, sophisticated and successfully functioning compliance system that was internationally regarded with respect and as a model to be emulated under other agreements. It was important never to be complacent, however, particularly just two months away from the January 2010 phase-out date for most categories of ozone-depleting substance.

144. In conclusion, she thanked her fellow Committee members for their hard work, support and dedication in helping her to carry out her duties.

145. Following Ms. Washbourne's presentation the Parties approved the draft decisions submitted by the Committee for further consideration during the high-level segment.

XII. Other matters

A. Observer status of the Occupied Palestinian Territory

146. The representative of the Occupied Palestinian Territory, expressing support for the intent of the Montreal Protocol and other efforts to protect the global environment, requested that the observer status of the Territory at meetings of the Parties be reviewed.

B. Difficulties faced by Timor-Leste as a new Party to the ozone treaties

147. The representative of Indonesia presented a conference room paper containing a draft decision submitted by her country and numerous other Parties from her region on the difficulties faced by Timor-Leste as a new Party to the Vienna Convention and the Montreal Protocol and its amendments.

148. Several Parties commended Timor-Leste for joining the international community's efforts to protect the ozone layer, with one offering to provide Timor-Leste with technical assistance. Another Party made several editorial suggestions, and it was agreed that informal consultations would be undertaken in an effort to agree on the draft decision.

149. Following those consultations a revised version of the draft decision was prepared and approved by the Parties for further consideration during the high-level segment.

Part two: high-level segment

I. Opening of the high-level segment

150. The high-level segment of the Twenty-First Meeting of the Parties began at 10.25 a.m. on Saturday, 7 November, with an opening ceremony facilitated by Mr. Nick Nuttall, UNEP spokesperson and Head of Media, who acted as master of ceremonies.

151. Opening statements were delivered by Mr. Róbert Tóth, President of the Bureau of the Twentieth Meeting of the Parties to the Montreal Protocol; the Executive Secretary, speaking on behalf of the Executive Director of UNEP; and Mr. George.

152. In his opening statement, Mr. Tóth welcomed the significant work undertaken to implement the decisions taken at the Twentieth Meeting of the Parties and the paperless meeting initiative piloted at that meeting, which had become another milestone in the history of the ozone treaties. He called for the initiative to spread throughout the United Nations system. He highlighted the fact that the Vienna Convention and its Montreal Protocol had attained universal ratification, commending Governments and the Ozone Secretariat alike on their efforts in achieving that feat. He stressed the importance of synergies between all stakeholders and expressed the hope that progress would be made in deciding on the important issue of the phase-out of HFCs.

153. The Executive Director, in his opening statement, welcomed the milestone of universal ratification and pointed out that another landmark would be achieved on 1 January 2010 with the complete phase-out of CFCs, events testament to the success of the ozone institutions and the flexibility of the treaties. He praised cooperative efforts under the ozone treaties with the International Plant Protection Convention and the United Nations Framework Convention on Climate Change to deal with such issues as methyl bromide and climate change. He noted that there was a proposal on the table to share responsibility for HFCs between the Convention on Climate Change and the Montreal Protocol and called upon representatives to accord that proposal due consideration.

154. The Parties at the current meeting, he said, could send a strong and clear political signal that the United Nations, by harnessing the power of various legal instruments, could tackle the global environmental challenges facing the current generation. Every individual bore a responsibility to develop a more sustainable planet and multilateralism was the only possible solution to environmental challenges. It was alive and well, however, as could be seen in the efforts to protect the ozone layer, foster development and combat climate change. He lamented what he said was a recent lowering of expectations of serious results from the Copenhagen climate negotiations, and he called on representatives to lead the current meeting to a positive outcome that would raise ambition levels in the efforts to preserve the environment.

155. In his opening statement, Mr. George welcomed the participants to Egypt and formally opened the high-level segment, lauding the universal ratification of the ozone treaties. He stressed Egypt's contribution to efforts to protect the ozone layer and combat climate change, outlining its work at the national level in that regard, and called for international cooperation, observing that environmental threats paid no heed to borders. Warning of the deleterious effects of climate change that could afflict developing countries in particular, he appealed for strong commitment in Copenhagen and coordination and cooperation at all levels to combat climate change, lest future generations inherit a tarnished legacy.

156. Following the opening statements, the representatives enjoyed a cultural interlude, during which an Egyptian harpist performed a composition by Franz Schubert.

157. Subsequently, a documentary was screened on the environmental protection activities of Ms. Susan Mubarak, First Lady of Egypt. Following that screening, the Executive Secretary presented an award to Mr. George, on behalf of Ms. Mubarak, in recognition of Ms. Mubarak's contribution to the environment.

158. The Executive Secretary then recounted the history of the Vienna Convention and its Montreal Protocol, drawing attention to the events that had led to the treaties achieving universal ratification. In celebration of the achievement he presented commemorative certificates to the representatives of Mexico and Timor-Leste, as the first and last Parties to ratify the ozone treaties, and announced that similar certificates would be sent to all 196 Parties in recognition of their efforts. He expressed thanks to all Parties for their achievements to date and in anticipation of many more milestones along the road to a low-carbon, resource-efficient green economy of the twenty-first century.

II. Organizational matters

A. Election of officers for the Twenty-First Meeting of the Parties

159. At the opening session of the high-level segment, in accordance with paragraph 1 of rule 21 of the rules of procedure, the following officers were elected, by acclamation, to the Bureau of the Twenty-First Meeting of the Parties to the Montreal Protocol:

President:	Mr. Michael Church (Grenada)	Latin American and Caribbean group
Vice-Presidents:	Mr. Patrick McInerney (Australia)	Western European and others group
	Mr. Abid Ali (Pakistan)	Asian and Pacific group
	Mr. Ramadhan Kajembe (Kenya)	African group
Rapporteur:	Ms. Azra Rogovic-Grubic (Bosnia and Herzegovina)	Eastern European group

B. Adoption of the agenda of the high-level segment of the Twenty-First Meeting of the Parties

160. The following agenda for the high-level segment was adopted on the basis of the provisional agenda contained in document UNEP/OzL.Pro.21/1:

1. Opening of the high-level segment:
 - (a) Statements by representative(s) of the Government of Egypt;
 - (b) Statements by representative(s) of the United Nations;
 - (c) Statement by the President of the Twentieth Meeting of the Parties.
2. Organizational matters:
 - (a) Election of officers for the Twenty-First Meeting of the Parties;
 - (b) Adoption of the agenda of the Twenty-First Meeting of the Parties;
 - (c) Organization of work;
 - (d) Credentials of representatives.
3. Status of ratification of the Vienna Convention, the Montreal Protocol and the amendments to the Montreal Protocol.
4. Presentation by the assessment panels on the status of their work, with a focus on the latest developments.
5. Presentation by the Chair of the Executive Committee of the Multilateral Fund on the work of the Executive Committee, the Multilateral Fund Secretariat and the Fund's implementing agencies.
6. Statements by heads of delegations.
7. Report by the Co-Chairs of the preparatory segment and consideration of the decisions recommended for adoption by the Twenty-First Meeting of the Parties.
8. Dates and venue for the Twenty-Second Meeting of the Parties.
9. Other matters.
10. Adoption of decisions by the Twenty-First Meeting of the Parties.
11. Adoption of the report of the Twenty-First Meeting of the Parties.
12. Closure of the meeting.

C. Organization of work

161. The Parties agreed to follow their customary procedures.

D. Credentials of representatives

162. The Bureau of the Twenty-First Meeting of the Parties to the Montreal Protocol approved the credentials of the representatives of 96 of the 149 Parties represented. The Bureau provisionally approved the participation of other Parties on the understanding that they would forward their credentials to the Secretariat as soon as possible. The Bureau urged all Parties attending future meetings of the Parties to make their best efforts to submit credentials to the Secretariat as required under rule 18 of the rules of procedure. The Bureau also recalled that under the rules of procedure credentials had to be issued either by a head of State or Government or by a minister for foreign affairs or, in the case of a regional economic integration organization, by the competent authority of that organization. The Bureau further recalled that representatives of Parties not presenting credentials in the correct form could be precluded from full participation in the meetings of the Parties, including the right to vote.

III. Status of ratification of the Vienna Convention, the Montreal Protocol and the amendments to the Montreal Protocol

163. Introducing the item, the President presented a brief summary of the information contained in document UNEP/OzL.Pro.21/INF/1-UNEP/OzL.Pro/ImpCom/43/INF/1 on the status of ratification, acceptance or approval of or accession to the agreements on the protection of the stratospheric ozone layer. He noted that since the Twentieth Meeting of the Parties three additional Parties had ratified the Vienna Convention and the Montreal Protocol, bringing the total for both instruments to 196 and achieving universal ratification. As to the amendments to the Protocol, four Parties had ratified the London Amendment, for a total of 193; six had ratified the Copenhagen Amendment, for a total of 190; 11 had ratified the Montreal Amendment, for a total of 178; and 16 had ratified the Beijing Amendment, for a total of 160.

164. The President drew attention to the draft decision on the status of ratification of the Vienna Convention, the Montreal Protocol and the amendments to the Montreal Protocol contained in document UNEP/OzL.Pro.21/3, which was a standard decision of the kind that had been taken in the past to record the status of ratifications and to encourage further ratifications.

IV. Presentation by the assessment panels on the status of their work with a focus on the latest developments

165. Under the item presentations were made by representatives of the Scientific Assessment Panel, the Environmental Effects Assessment Panel and the Technology and Economic Assessment Panel.

A. Scientific Assessment Panel

166. Mr. Paul Newman, co-chair of the Scientific Assessment Panel, presented the Panel's plans for the development of its 2010 scientific assessment of ozone depletion. He explained the context of the assessment, noting that it was based upon the expertise of the authors and reviewers; that it was a scientific document with a focus on ozone depletion and implications for policy decisions; and that it was an assessment of science and not a scientific review. The assessment would look at key issues and responses to specific issues by the Parties. In particular, it would review levels and trends of ozone-depleting substances and related chemicals, among other things. It was well along in its development: the author teams had been formed, the outline established and the first draft completed. Over the course of 2010, the draft would undergo numerous reviews and revisions, before being completed in July 2010 and being delivered as a pre-print volume to UNEP by 30 December.

B. Environmental Effects Assessment Panel

167. Ms. Janet Bornman, co-chair of the Environmental Effects Assessment Panel, reported on the effects of ozone depletion and its interactions with climate change with regard to ozone and ultraviolet radiation reaching Earth; human health; terrestrial and aquatic ecosystems; biogeochemical cycles; air quality; and materials damage. Noting that the Panel produced a full assessment report every four years, and annual scientific updates in the form of short progress reports, she outlined key issues discussed in the Panel's 2009 progress report.

Ozone and ultraviolet radiation reaching Earth

168. The continuing reduction in stratospheric ozone, she said, might be influenced by factors such as the impact of ozone changes on other climate variables and vice versa. Thus, a return to ozone values for any particular date might not be attributable to the effects of ozone-depleting-substance reduction alone. Large differences in surface ultraviolet irradiance between polluted and pristine locations occurred because of differences in clouds and aerosols, differences in the profile of ozone and the influence of interactions between ozone aerosols in the lower atmosphere. A recent modelling study had shown that in response to climate change cloud cover was projected to increase at high latitudes, but decrease at low latitudes, resulting in a further ultraviolet burden in the latter regions, with important implications for human health. The success of the Montreal Protocol had been assessed in scenarios for the “world avoided”, showing that reductions in stratospheric ozone due to increasing CFCs would have led to more than a doubling of the UV index in the northern summer mid-latitudes by 2060.

Human health

169. The key human health issues included effects on skin cancer and the role of ultraviolet-radiation-induced production of vitamin D in the skin. Cutaneous melanoma continued to be a major environmental risk, with rising mortality rates, especially for fair-skinned populations. While low exposure to sunlight might be beneficial for preventing skin damage, however, it might also be detrimental to the maintenance of vitamin D levels. Possible links between sun exposure and reduced risk of breast, colon and prostate cancer were still uncertain but evidence was increasing that ultraviolet-radiation-induced vitamin D production had positive effects with regard to several autoimmune diseases such as multiple sclerosis and type 1 diabetes mellitus.

Terrestrial ecosystems

170. She said that ozone depletion and its interactions with climate change had consequences for several ecosystems, including polar ecosystems. Reports indicated that the adaptive capacity of some species in polar regions had diminished as a result of decades of ozone depletion, with type B ultraviolet radiation having a greater impact in the Antarctic than in the Arctic.

171. Significant progress in the understanding of molecular mechanisms controlling plant responses to type B ultraviolet radiation had been made using an array of biotechnological tools for enhancing the tolerance of sensitive plants to such radiation. With regard to adaptation, type-B-ultraviolet-radiation-induced pigments (phenolics) could reduce the susceptibility of plants to leaf pathogens and insect attack. Those pigments also showed promise as indicators for ozone column history before modern measurements were possible because of the correlation between pigment accumulation and the level of solar ultraviolet radiation.

Aquatic ecosystems

172. The key issues identified in respect of aquatic ecosystems were effects from changes in climate together with increased exposure to type B ultraviolet radiation. Examples included increasing carbon dioxide concentrations and the resultant acidification of oceans, which caused a reduction in the calcium encrustations of several organisms that were efficient absorbers of ultraviolet radiation. While rapid warming (5–6 °C) of surface waters around the Antarctic peninsula over the past 50 years had resulted in potentially higher phytoplankton productivity that could contribute to increasing carbon sequestration, global warming had increased the stratification of surface oceanic waters, leading to greater penetration of solar ultraviolet radiation and thus a potential decrease in carbon fixation and protective calcification.

Biogeochemical cycles

173. She highlighted the main issues arising from recent studies, which centred on the cycling of compounds driven by ultraviolet radiation, temperature, land-use changes, ozone, wind and carbon dioxide upwelling from oceans resulting in a weakened carbon sink, especially for the Southern Ocean. It had also been suggested that current models of sinks and sources of carbon dioxide should include ultraviolet radiation-induced effects, which would improve climate predictions.

174. The projected warmer and drier conditions in terrestrial ecosystems would be likely to lead to more open vegetation that would be more exposed to type B ultraviolet radiation, with consequences including greater photodegradation of plant litter. Climate change might also affect halocarbon budgets from terrestrial systems through warming and decreasing soil moisture and changing the sinks and sources of methyl chloride and methyl bromide, among other things. Processes induced by type B ultraviolet radiation led to the formation of biologically available metals such as mercury in the aquatic

food web (as methylmercury). Type B ultraviolet radiation also caused pesticide degradation, the products of which might also be toxic.

Tropospheric ozone

175. Climate-driven effects on ozone and the consequences of substitutes for ozone-depleting substances were among the key issues of importance for tropospheric ozone as total tropospheric ozone was projected to increase. Climate modelling scenarios suggested a significant increase between 1965 and 2095 of the global ozone flux from stratosphere to troposphere, which would have complex impacts on climate processes. Substitutes for ozone-depleting fumigants such as sulphuryl fluoride, a proposed substitute for methyl bromide in the fumigation of crops and soils, might also contribute to global climate change. Nitrous oxide emissions from agriculture were projected to continue to increase.

176. An assessment of trifluoroacetic acid, a breakdown product of HCFCs and HFCs, had revealed no new evidence to suggest that it would have adverse effects on humans or the environment, given the small projected deposition of the substance in oceans.

Materials damage

177. The contribution of climatic variables, including increased high temperatures, humidity, atmospheric pollutants and ultraviolet radiation, to damage to materials such as plastics and wood was partially offset by the protection afforded by photostabilizers, which allowed service lifetimes of materials to be maintained or improved.

C. Technology and Economic Assessment Panel

178. Mr. Andersen presented information on the Technology and Economic Assessment Panel's 2010 assessment process. He noted that the Panel had six technical options committees dealing with chemicals; foams; halons; medical applications; methyl bromide; and refrigeration, air-conditioning and heat pumps. He explained that the Panel and each of its six committees reported annually on progress in phasing out the use and emissions of ozone-depleting substances in their sectors and responded to specific requests by Parties. The Panel also regularly established task forces to deal with specific requests and all of the committees dealt with essential and critical use nominations. The committees held one or two meetings each year, while the Panel met for one week as well as at the annual meetings of the Open-ended Working Group and the Meeting of the Parties. Each committee, except the Methyl Bromide Technical Options Committee, had 11 members from Parties operating under paragraph 1 of Article 5 of the Protocol and 10–15 members from Parties not so operating. The Methyl Bromide Technical Options Committee had 38 members. The Panel and the committees had 57 members from Parties operating under paragraph 1 of Article 5 of the Protocol and 88 members from Parties not operating under that paragraph, for a total of 145 members.

179. Mr. Kuijpers continued the Technology and Economic Assessment Panel's presentation. Noting that the three Montreal Protocol panels produced assessment reports every four years, he said that his Panel's next such report would be published by the end of 2010. Each of the Panel's technical options committees produced its own assessment report, while the Panel produced an overall assessment report that included the executive summaries of the committee reports along with overview and special topic chapters, including on organizational and cross-cutting issues. He noted that the Panel's workload peaked in the years in which it produced its assessment reports. Reports by the technical options committees analysing specific issues and reports by Panel task forces, requested with 4–6 month deadlines by the Parties, had first priority, followed by the Panel's progress reports, which contained the Panel's responses to essential- and critical-use requests. The assessment reports of the Panel and the committees had their own cycles: the assessment reports took between one and two years while the committee reports typically went through two or three drafts before finalization. Peer review comments on the 2010 reports would be received in the fourth quarter of 2010 and the final reports would be ready around the end of December 2010. A synthesis report with policy options was subsequently prepared from the findings in the three Panel reports.

180. Mr. Andersen and Mr. Kuijpers then summarized the contents of the six technical options committee assessment reports that were being prepared. The Chemicals Technical Options Committee report would include process agent issues, laboratory and analytical uses of ozone-depleting substances, n-propyl bromide and a discussion of carbon tetrachloride emissions and opportunities for their reduction. The Foams Technical Options Committee report would include the conversion to non-ozone-depleting substances for insulating foams and integral skin foams, scenarios up to 2020 covering all technical options, data on banks, emissions and destruction, and three appendices on sectors by market segment, blowing agents and technical options. The Halons Technical Options Committee

report would include a description of halon banks in Parties operating under paragraph 1 of Article 5, global supplies and distribution of halons and HFCs (particularly where HFCs and halons were the only viable options), emerging halon replacement technologies and progress and plans in the adoption of alternatives in civil aviation.

181. They continued with a description of the three remaining technical options committee assessment reports. The Medical Technical Options Committee report would include a description of available technologies for metered-dose inhalers, the transition away from CFC-based metered-dose inhalers, the production of pharmaceutical-grade CFCs and the remaining challenges in the effort to phase out CFCs in metered-dose inhalers. It would describe the transition away from CFCs for medical aerosols other than those in metered-dose inhalers, available sterilant technologies, the global status of the transition to non-ozone-depleting sterilants and the global use of HCFCs and issues affecting their phase-out. The Methyl Bromide Technical Options Committee report would feature various case studies and would discuss new developments, including the commercial adoption of alternatives and remaining barriers to their adoption, the 2015 phase-out in Parties operating under paragraph 1 of Article 5, new research, pesticide registration, training and licensing, continuing and emerging pest problems and quarantine. The Refrigeration, Air-conditioning and Heat Pumps Technical Options Committee assessment report would review the use of HCFCs, HFCs and non-fluorocarbons and the transition away from HCFCs and HFCs in all subsectors. It would elaborate on the technical and economic feasibility of low-global-warming-potential natural refrigerants (hydrocarbons, carbon dioxide and ammonia) and low-global-warming-potential HFCs, would provide banks and emissions data until 2020 and elaborate on the energy efficiency of all types of equipment. It would also contain an annex with all relevant refrigerant property data.

182. The Parties took note of the information presented.

V. Presentation by the Chair of the Executive Committee of the Multilateral Fund on the work of the Executive Committee, the Multilateral Fund Secretariat and the Fund's implementing agencies

183. Mr. Husamuddin Ahmadzai, chair of the Executive Committee of the Multilateral Fund, delivered a presentation on the Committee's activities in 2009, summarizing the report contained in document UNEP/OzL.Pro.21/6. The Committee had approved 222 new projects and activities aimed at achieving the phase-out of 3,979 ODP-tonnes of production and consumption of CFCs and other controlled ozone-depleting substances. Analysis of countries' potential to meet their obligations showed that most Parties operating under paragraph 1 of Article 5 would be able to complete the phase-out of CFCs by 2010, a major achievement for the international community.

184. With a view to accelerating the phase-out of HCFCs, the Committee had approved 238 project preparation requests for phase-out and HCFC alternatives demonstration projects for 128 countries, contributing funds totalling more than \$26.4 million. It had approved 82 of those over the reporting period, with total funding of more than \$6.8 million. HCFC costing guidelines had been under deliberation since 2007, raising concerns that some Parties operating under paragraph 1 of Article 5 might not be able to comply with their 2013 and 2015 deadlines.

185. The Committee had also considered the technical and policy aspects of climate, energy and further environmental impacts. The climate impact indicators developed by the Fund secretariat would be discussed further at the Committee's fifty-ninth meeting because some members of the Committee felt that a simpler guide to assessing the global climate impact of HCFC alternative technologies was needed.

186. The Committee had been pursuing innovative ideas, notably a special facility for raising additional income, as discussed in the Committee's report to the Twentieth Meeting of the Parties. The facility might cover any additional costs of maximizing the benefits of phasing out HCFCs and of destruction projects. The Committee's business planning for 2009–2011 had included demonstration projects for the destruction of ozone-depleting substances, requests for which would be evaluated against criteria adopted at the Committee's fifty-eighth meeting.

187. Speaking on behalf of the implementing agencies, the chair observed that during 2009 UNDP had striven to accelerate project implementation. With programmes in more than 100 countries, UNDP had helped, through the Multilateral Fund, to phase out over 64,500 tonnes of ozone-depleting substances. Plans for phasing out HCFCs had progressed in all 31 countries where UNDP was the lead agency, and it had taken steps to implement pilot or validation projects for low-carbon options to

replace HCFCs, particularly in the foams sector. UNDP and its Carbon Finance Unit had pooled their knowledge on combining and sequencing financing to enable developing countries to take account of climate benefits in HCFC phase-out.

188. The UNEP core mandate included targeting compliance assistance mainly in low-volume-consuming countries. Its nine regional networks provided policy support for 147 developing countries, about 90 per cent of which had established compliance policies, including import and export licensing systems. UNEP was also assisting more than 80 countries to prepare HCFC phase-out management plans and was continuing its network activities on technology transfer and the prevention of illegal trade in ozone-depleting substances.

189. The United Nations Industrial Development Organization (UNIDO) had helped 36 Parties operating under paragraph 1 of Article 5 to complete their plans to phase out CFCs in 2010. It was currently working with 39 countries on the preparation of HCFC phase-out management plans and had submitted the first completed plan for consideration by the Executive Committee. UNIDO was also actively involved in promoting new non-depleting technologies that offered both ozone layer and climate benefits, and was well positioned to deliver assistance to Parties operating under paragraph 1 of Article 5 because of its in-house technical expertise.

190. The World Bank, through close work with its client countries on country-driven phase-out plans, had helped to eliminate over 280,000 ODP-tonnes of production and consumption of ozone-depleting substances by the end of 2008. It had also demonstrated potential climate and ozone synergies through chiller replacement projects, using Multilateral Fund money to leverage other financing. The Bank, on behalf of the Multilateral Fund, had recently studied the voluntary carbon market as a possibility for private-sector financing for the management and destruction of ozone-depleting substances contained in banks. It was also considering “advanced commitments” as a potential addition to the Multilateral Fund while accelerating HCFC phase-out and reducing carbon emissions.

191. There remained a number of challenges for the Executive Committee to tackle in the future. By the end of May 2009, \$80 million of the pledged total contributions of \$133 million for 2009 had yet to be paid. He therefore appealed for timely payment of all contributions to avoid jeopardizing the final and crucial stage of CFC phase-out in Parties operating under paragraph 1 of Article 5 and to maintain the momentum of HCFC phase-out.

192. In conclusion, the chair expressed his belief that the Montreal Protocol was one of the most successful international environmental agreements and that the Multilateral Fund was an integral part of its success. The Montreal Protocol community could feel proud of its efforts to phase out ozone-depleting substances, which had contributed not only to the recovery of the ozone layer but also to the reduction of greenhouse gases. All participants needed to continue and reinforce that success by attending to the phase-out of HCFCs.

193. The Parties took note of the information presented.

VI. Statements by heads of delegations

194. At the high-level segment, statements were made by heads of delegation of the following Parties, listed in the order in which they spoke: Islamic Republic of Iran, Dominican Republic, Cuba, Iraq, Fiji (on behalf of itself, Cook Islands and Tonga), India, Canada, China, Sweden (on behalf of the European Union), Timor-Leste, Burkina Faso, Pakistan, Malaysia, United States, Saudi Arabia, Kuwait, Croatia, Angola, Uganda, Bangladesh, Madagascar, Serbia, Malawi, Mozambique, Yemen, Zimbabwe, Andorra, Indonesia, Federated States of Micronesia, Tajikistan, Philippines, Marshall Islands, Solomon Islands, Kiribati, Japan, Kenya, Sudan, Somalia, Tonga, Nicaragua, Brazil, Mongolia, South Africa, Grenada, Mexico, Ghana.

195. Representatives of the Secretariat of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the International Institute of Refrigeration also made statements.

196. All who spoke expressed their appreciation to the Government and people of Egypt for their hospitality in hosting the current meeting. Many thanked UNEP and the Ozone Secretariat, the Multilateral Fund secretariat and implementing agencies, donor countries, the assessment panels, international organizations and other stakeholders for their roles in ensuring the success of the meeting and the successful development and implementation of the Protocol.

197. Many representatives highlighted the important successes of the Protocol, praising it as an exemplary achievement in international cooperation that, in addition to protecting the ozone layer, had also helped to mitigate climate change. Many celebrated the fact that with Timor-Leste's recent ratification the Montreal Protocol had become the first global environmental treaty to achieve universal ratification.

198. Many representatives outlined the status of their countries' ratification of the ozone treaties and their efforts to fulfil their obligations under the Protocol. The latter included the phase-out of the production and consumption of controlled substances, which in a notable number of cases had been or would be achieved ahead of the deadlines under the Protocol; the promotion of alternative substances and technologies, including climate-friendly technologies; training, capacity-building and awareness-raising activities; and the enhancement of cooperation among government ministries, public and private stakeholders, the countries of the various regions and international organizations.

199. Many representatives said that while there was much to celebrate there remained much to do. Parties therefore needed to maintain momentum to ensure that the Protocol dealt effectively with the remaining challenges, including the phase-out of CFCs and several other ozone-depleting substances in 2010; the management of essential-use exemptions; the reduction of methyl bromide use for quarantine and pre-shipment; the management and destruction of banks of ozone-depleting substances; limiting the exemption for laboratory and analytical uses of ozone-depleting substances; combating illegal trade in ozone-depleting substances, which was likely to increase following the 2010 phase-outs; ensuring the provision of appropriate and effective assistance to countries operating under paragraph 1 of Article 5; and implementing the accelerated phase-out of HCFCs.

200. Regarding HCFCs, many representatives from Parties operating under paragraph 1 of Article 5 said that implementing the accelerated phase-out schedule would require developed country Parties to fulfil their obligations to provide appropriate financial and technical assistance, capacity-building and technology transfer. Many called upon the Executive Committee to complete the development of necessary criteria against which to consider and approve projects to phase out HCFCs. Several stressed the need to provide financial and technical support to those industries that had already converted from CFCs to HCFCs and were being asked to undertake a second conversion to other climate-friendly technologies. One emphasized that funding for capital and incremental costs should be provided for facilities that had completed the conversion from CFCs to HCFCs prior to the agreement to accelerate the HCFC phase-out. A number of representatives called for more analyses and information on HCFC alternatives, emphasizing the need for economically, technically and environmentally viable alternatives for use in developing countries. A number of representatives requested that the Executive Committee take into account the special economic, geographic and post-conflict circumstances of their countries when discussing budget allocations for the preparation and implementation of their HCFC management phase-out plans.

201. Many representatives, in particular from small island developing States, highlighted the growing threats associated with climate change. Many supported taking steps under the Protocol to begin addressing HFCs, noting that their expanding use was due almost entirely to the Protocol's controls on CFCs and HCFCs and that doing so would yield very important climate benefits. Using the proven mechanisms of the Protocol would allow the Parties to work synergistically with the Convention on Climate Change on a matter of significant common concern. A number of other representatives, however, said that the Parties should not address HFCs, arguing, among other things, that addressing HFCs was beyond the intended scope of the Protocol; that it was important not to infringe upon or impede the Climate Change Convention, which already encompassed HFCs; that time, effort and resources would be better spent ensuring the success of the CFC and HCFC phase-outs; that HFCs were required to achieve the HCFC phase-out; and that proven, cost-effective, and environmentally safe alternatives to HFCs were not available in all sectors.

202. Many representatives agreed that ensuring the environmentally sound management and destruction of the growing amount of ozone-depleting-substance wastes, including those contained in banks, would yield important benefits in the effort to protect the ozone layer and mitigate climate change. A number of representatives of developing countries said that they were hampered in their ability to deal with banks of ozone-depleting substances owing to a lack of the necessary equipment and financial resources; they therefore called for assistance from the Multilateral Fund. Representatives also voiced support for a variety of other steps, including further study of the size and scope of banks and how to monitor and manage them; identifying priorities; creating effective incentives for the sound management and destruction of ozone-depleting substances in banks; sharing existing knowledge; regional cooperation; capacity-building; institutional strengthening; and seeking additional resources for dealing with banks of non-traditional sources. Several representatives from countries with the

technologies and other capacities required for effective management and destruction offered assistance to developing countries eager to grapple with ozone-depleting-substance banks in their countries.

203. Many representatives, from both developed and developing countries, said that financial and technical assistance and the effective functioning of the Multilateral Fund had played a major role in the success of the Protocol. Many said too that it was important for developed country Parties to fulfil their obligations to provide appropriate technical assistance; adequate financial assistance through the Multilateral Fund to meet the agreed incremental costs of developing country Parties in their transition away from ozone-depleting substances; and technology transfer as provided for in the Protocol. Many representatives said that institutional strengthening had played an important role in building the capacity of developing countries to implement the Protocol. They called for continued funding for institutional strengthening in 2010 and beyond, saying that it was essential to, among other things, achieving the accelerated phase-out of HCFCs, eliminating consumption of methyl bromide, including for quarantine and pre-shipment applications, addressing issues associated with banks of obsolete ozone-depleting substances and combating illegal trade. In that context one representative suggested that institutional strengthening be extended to 2030. Another favoured decoupling institutional strengthening from HCFCs in discussions within the Executive Committee.

204. There was general support for taking steps to reduce the amount of methyl bromide used in quarantine and pre-shipment applications, with many representatives saying that effective, economically viable and environmentally friendly alternatives existed. Some cautioned, however, that such alternatives were not yet available for all uses and that they would have to be universally available before the exemption for quarantine and pre-shipment applications could be completely eliminated.

205. Several representatives outlined difficulties in reducing the use of CFCs in metered-dose inhalers, citing what they said were important public-health benefits of ensuring the viability of providing low-cost, easily available options for patients and doctors. They stressed that efforts to develop effective, low-cost alternatives for all applications continued in their countries but said that in the meantime they would need to rely on the essential-use exemption process for some period following the 2010 phase-out of CFCs. One representative called for additional funding to address the issue.

206. Representatives from Pacific island States expressed support for the establishment of an ozone-depleting-substance analytical laboratory and destruction facility in their region. A number of representatives highlighted the special challenges faced by very-low-volume-consuming countries. Several said that the climatic conditions of countries should be taken into account in the consideration of additional control measures. One representative said that his country would seek an adjustment to its calculated baseline of HCFC consumption. Another representative highlighted the difficulties for developing countries posed by mislabelled imported ozone-depleting substances and called for the establishment of regional destruction centres to enable their environmentally sound disposal.

207. The representative of the Secretariat of the Basel Convention, noting that one of the major challenges under discussion was the environmentally sound management and destruction of CFCs stockpiled and contained in banks, stressed the importance of regulating the transboundary movement of wastes. Drawing attention to the synergies between the Basel Convention and the Montreal Protocol with regard to wastes, he highlighted recent relevant work by the Parties and the Secretariat to the Basel Convention and expressed an interest in continuing to work with the Parties to the Montreal Protocol.

208. The representative of the International Institute of Refrigeration, an intergovernmental organization, noted that while providing critical benefits many of the substances used in the past for refrigeration were ozone-depleting substances and greenhouse gases. With demand for refrigeration expected to grow, in particular in developing nations, the Institute had developed a number of recommendations on how to tackle such challenges, including coordination between the Montreal and Kyoto protocols, improved design and maintenance of refrigeration equipment, continued development of alternative solutions, which were increasingly available, and eliminating incentives for projects that used substances with high global-warming potential.

VII. Report by the Co-Chairs of the preparatory segment and consideration of the decisions recommended for adoption by the Twenty-First Meeting of the Parties

209. Reporting on the preparatory segment of the meetings, the Co-Chair said that much had been achieved during the preparatory segment through negotiations that were difficult but marked throughout by cooperation and compromise. He thanked the Parties for their great efforts, the contact group chairs

for their leadership, the Secretariat for its excellent work and professionalism and the interpreters and other behind-the-scenes staff for making it possible for the Parties to do their work.

VIII. Dates and venue for the Twenty-Second Meeting of the Parties

210. The Parties adopted a decision by which they agreed that the Twenty-Second Meeting of the Parties would take place at the seat of the Secretariat in Nairobi in October 2010 unless other appropriate arrangements were made by the Secretariat in consultation with the Bureau.

211. Subsequently, the representative of Uganda announced that his Government wished to host the Twenty-Second meeting of the Parties. The Parties applauded the generous offer by the Government of Uganda and it was noted that the Secretariat would discuss the matter further with the Party.

IX. Other matters – declaration on high-global-warming-potential alternatives to ozone-depleting substances

212. Expressing regret that the Parties at the current meeting had not adopted a decision on HFCs, the representative of the Federated States of Micronesia introduced a declaration on high-global-warming-potential alternatives to ozone-depleting substances, which, he reported, had been signed by 38 Parties. The representative of Mauritius then read the declaration. The representatives of Japan and New Zealand requested that their countries be added to the list of Parties sponsoring the declaration. The representatives of Australia and the European Community expressed general support for the terms of the declaration but said that they could not sign on to it at the current meeting given the short time available to consider it.

213. The Parties took note of the declaration and, at the request of its submitters, agreed that it should be appended as an annex to the present report. The President noted that the presentation of the declaration did not constitute its endorsement by the Meeting of the Parties. The declaration, which is presented as submitted and has not been edited by the Secretariat, is set out in annex III to the present report.

X. Adoption of decisions by the Twenty-First Meeting of the Parties

214. The present chapter sets out the decisions adopted by the Twenty-First Meeting of the Parties. They are presented as adopted and have not been edited by the Secretariat.

The Meeting of the Parties decides:

XXI/1: Status of ratification of the Vienna Convention, the Montreal Protocol and the London, Copenhagen, Montreal and Beijing amendments to the Montreal Protocol

1. To note with satisfaction that 196 Parties have ratified the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, representing universal ratification, and also a higher number of Parties than any other treaties in history;

2. To note that, as of 31 October 2009, 193 Parties had ratified the London Amendment to the Montreal Protocol, 190 Parties had ratified the Copenhagen Amendment to the Montreal Protocol, 178 Parties had ratified the Montreal Amendment to the Montreal Protocol and 160 Parties had ratified the Beijing Amendment to the Montreal Protocol;

3. To urge all States that have not yet done so to ratify, approve or accede to the amendments to the Montreal Protocol, taking into account that universal participation is necessary to ensure the protection of the ozone layer;

XXI/2: Environmentally sound management of banks of ozone-depleting substances

Recalling Decision XX/7 which called for further study on the size and scope of banks of ozone-depleting substances and requesting the Multilateral Fund to initiate pilot projects on destruction with a view to developing practical data and experience,

Understanding that any such projects approved under the Multilateral Fund would be implemented consistent with national laws and international agreements related to wastes,

Noting the significant climate change and ozone layer benefits associated with destroying many types of ozone-depleting substances;

1. *To request* the Ozone Secretariat to host a one-day seminar on the margins of the 30th meeting of the Open-ended Working Group of the Parties to the Montreal Protocol on the topic of how to identify and mobilize funds, including funds additional to those being provided under the Multilateral Fund, for ozone-depleting substance destruction, and *further requests* the Ozone Secretariat to invite the Multilateral Fund and the Global Environment Facility to consider co-coordinating this effort, and to invite other relevant institutions to attend the seminar;

2. *To request* the Executive Committee to continue its consideration of further pilot projects in Article 5 Parties pursuant to decision XX/7, and in that context, to consider the costs of a one-time window within its current destruction activities to address the export and environmentally sound disposal of assembled banks of ozone-depleting substances in low-volume-consuming countries that are not usable in the Party of origin;

3. *To request* the Technology and Economic Assessment Panel to review those destruction technologies identified in its 2002 report as having a high potential, and any other technologies, and to report back to the 30th meeting of the Open-ended Working Group on these technologies and their commercial and technical availability;

4. *To agree* that the Executive Committee of the Multilateral Fund should develop and implement, as expeditiously as possible, a methodology to verify the climate benefits and costs associated with Multilateral Fund projects to destroy banks of ozone-depleting substances, and should make such information publicly available on a project-level basis;

5. *To request* the Executive Committee to continue its deliberations on a special facility and to report on these deliberations, including possible options for such a facility as appropriate, to the 30th meeting of the Open-ended Working Group as an agenda item.

6. *To call upon* Parties, and institutions not traditionally contributing to the financial mechanism, to consider making additional support available to the Multilateral Fund for destruction of ozone-depleting substances, if they are in a position to do so;

7. *To request* the Executive Committee to report annually on the results of destruction projects to the Meeting of the Parties, and to request the Technology and Economic Assessment Panel, based on this, and other available information, to suggest to the thirty-first meeting of the Open-ended Working Group components designed to help Parties of diverse size and with diverse wastes to develop national and/or regional strategic approaches to address the environmentally sound disposal of the banks of ozone-depleting substances that are present in their countries and/or regions. In addition, this information should be available to the Technology and Economic Assessment Panel and the Parties to inform the consideration of the financial implications for the Multilateral Fund and other funding sources of addressing the destruction of ozone-depleting-substance banks;

XXI/3: Uses of controlled substances as process agents

Noting with appreciation the 2008 report of the Technology and Economic Assessment Panel;

Recalling Decision X/14 in which all Parties are asked to report to the Secretariat annually by 30 September on their use of controlled substances as process agents, the levels of emissions from those uses and the containment technologies used by them to minimize emissions of controlled substances;

Noting that the report by Executive Committee on process agent uses in Parties operating under paragraph 1 of Article 5 of the Montreal Protocol (UNEP/Oz.L.Pro.WG.1/29/4) found that the adoption of technology that results in zero emissions of ozone-depleting substances used as process agents has become the norm in Parties operating under paragraph 1 of Article 5 of the Montreal Protocol;

Noting that reporting by Parties operating under paragraph 1 of Article 5 on approved process agent projects under the Multilateral Fund does not replace the need to submit the required information under Decision X/14 to the Ozone Secretariat;

Noting with concern that only two Parties reported information consistent with Decision X/14 and that such limited data has impeded the Technology and Economic Assessment Panel in undertaking the level of analysis required;

Also noting that such limited information reported by Parties puts at risk the current exclusion of process agent uses of controlled substances from a Party's annual consumption calculation;

1. To request all Parties with process agent uses of controlled substances to submit the information required by Decision X/14 by 30 September each year to the Ozone Secretariat;
2. To clarify that the annual reporting obligation shall not apply once a Party informs the Ozone Secretariat they do not use ozone-depleting substances as process agents as under Decision X/14, until they start doing so, and that this one-time procedure pertains to all Parties whether or not they are listed in Table B of Decision X/14;
3. To request the Ozone Secretariat every year to write to those Parties that did not submit a document as under paragraph 2, report, requesting them to submit information consistent with Decision X/14;
4. To request the Ozone Secretariat to bring cases of non-reporting to the attention of the Implementation Committee for consideration;
5. To request the Technology and Economic Assessment Panel and the Executive Committee of the Multilateral Fund to prepare a joint report for future meetings, reporting on progress with phasing out process-agent applications, as sought by Decision XVII/6 (paragraph 6);
6. To revisit this issue at the 30th Meeting of the Open-ended Working Group;
7. To update Table A of Decision X/14 as per the Annex to this decision;
8. To update Table B of Decision X/14 as per the Annex to this decision;

Annex

Table A: List of uses of controlled substances as process agents

No.	Process agent application	Substance
1	Elimination of NCl ₃ in chlor-alkali production	CTC
2	Chlorine recovery by tail gas absorption in chlor-alkali production	CTC
3	Production of chlorinated rubber	CTC
4	Production of endosulfan	CTC
5	Production of ibuprofen	CTC
6	Production of chlorosulfonated polyolefin (CSM)	CTC
7	Production of aramid polymer (PPTA)	CTC
8	Production of synthetic fibre sheet	CFC-11
9	Production of chlorinated paraffin	CTC
10	Photochemical synthesis of perfluoropolyetherpolyperoxide precursors of Z-perfluoropolyethers and difunctional derivatives	CFC-12
11	Reduction of perfluoropolyetherpolyperoxide intermediate for production of perfluoropolyether diesters	CFC-113
12	Preparation of perfluoropolyether diols with high functionality	CFC-113
13	Production of cyclodime	CTC
14	Production of chlorinated polypropene	CTC
15	Production of chlorinated ethylene vinyl acetate (CEVA)	CTC
16	Production of methyl isocyanate derivatives	CTC
17	Production of 3-phenoxybenzaldehyde	CTC
18	Production of 2-chloro-5-methylpyridine	CTC
19	Production of imidacloprid	CTC
20	Production of bupropfenzin	CTC
21	Production of oxadiazon	CTC
22	Production of chloradized N-methylaniline	CTC
23	Production of 1,3-dichlorobenzothiazole	CTC
24	Bromination of a styrenic polymer	BCM
25	Synthesis of 2,4-D (2,4-dichlorophenoxyacetic acid)	CTC
26	Synthesis of di-(2-ethylhexyl) peroxydicarbonate (DEHPC)	CTC
27	Production of radio-labelled cyanocobalamin	CTC
28	Production of high modulus polyethylene fibre	CFC-113
29	Production of vinyl chloride monomer	CTC
30	Production of sultamicillin	BCM
31	Production of prallethrin (pesticide)	CTC
32	Production of o-nitrobenzaldehyde (for dyes)	CTC

No.	Process agent application	Substance
33	Production of 3-methyl-2-thiophenecarboxaldehyde	CTC
34	Production of 2-thiophenecarboxaldehyde	CTC
35	Production of 2-thiophene ethanol	CTC
36	Production of 3,5-dinitrobenzoyl chloride (3,5-DNBC)	CTC
37	Production of 1,2-benzisothiazol-3-ketone	CTC
38	Production of <i>m</i> -nitrobenzaldehyde	CTC
39	Production of tichlopidine	CTC
40	Production of <i>p</i> -nitro benzyl alcohol	CTC
41	Production of tolclofos methyl	CTC
42	Production of polyvinylidene fluoride (PVdF)	CTC
43	Production of tetrafluorobenzoyl ethyl acetate	CTC
44	Production of 4-bromophenol	CTC

Table B: Limits for process agent uses (all figures are in metric tonnes per year)

Party	Make-up or consumption	Maximum emissions
European Community	1083	17
United States of America	2300	181
Canada	0	0
Japan	0	0
Russian Federation	800	17
Australia	0	0
New Zealand	0	0
Norway	0	0
Iceland	0	0
Switzerland	5	0.4
TOTAL	4188	215,4

XXI/4: Essential-use nominations for controlled substances for 2010

The Twenty-first Meeting of the Parties decides:

Noting with appreciation the work done by the Technology and Economic Assessment Panel and its Medical Technical Options Committee,

Mindful that, according to decision IV/25, the use of chlorofluorocarbons for metered-dose inhalers does not qualify as an essential use if technically and economically feasible alternatives or substitutes are available that are acceptable from the standpoint of environment and health,

Noting the Technology and Economic Assessment Panel's conclusion that technically satisfactory alternatives to chlorofluorocarbon-based metered-dose inhalers are available for some of the therapeutic formulations for treating asthma and chronic obstructive pulmonary disease,

Taking into account the Technology and Economic Assessment Panel's analysis and recommendations for essential use exemptions for controlled substances for the manufacture of metered-dose inhalers used for asthma and chronic obstructive pulmonary disease,

Noting that the Meeting of the Parties is for the first time considering essential use nominations submitted by Parties operating under paragraph 1 of Article 5,

Noting also that the Medical Technical Options Committee stated in its report that it had difficulty assessing some of the nominations submitted by Parties in accordance with the criteria of decision IV/25 and subsequent relevant decisions owing to a lack of certain information,

Noting further that notwithstanding insufficient information referred to in the preceding paragraph the Medical Technical Options Committee gave due consideration to the health and safety of patients in regard to the amounts recommended,

Welcoming the continued progress in several Parties operating under paragraph 1 of Article 5 in reducing their reliance on chlorofluorocarbon based metered-dose inhalers as alternatives are developed, receive regulatory approval and are marketed for sale,

1. To authorize the levels of production and consumption for 2010 necessary to satisfy essential uses of chlorofluorocarbons for metered-dose inhalers for asthma and chronic obstructive pulmonary disease as specified in the annex to the present decision;

2. To request nominating Parties to supply to the Medical Technical Options Committee information to enable assessment of essential use nominations in accordance with the criteria set out in decision IV/25 and subsequent relevant decisions as set out in the Handbook on Essential Use Nominations;
3. To encourage Parties with essential use exemptions in 2010 to consider sourcing required pharmaceutical-grade chlorofluorocarbons initially from stockpiles where they are available and accessible;
4. To encourage Parties with stockpiles of pharmaceutical-grade chlorofluorocarbons potentially available for export to Parties with essential use exemptions in 2010 to notify the Ozone Secretariat of such quantities and a contact point by 31 December 2009;
5. To request the Secretariat to post on its website details of the potentially available stocks referred to in the preceding paragraph;
6. To request the Executive Committee to consider at its next meeting reviewing both of the chlorofluorocarbon production phase-out agreements with China and India with a view to allowing production of pharmaceutical-grade chlorofluorocarbons to meet the authorized levels of production and consumption specified in the annex to the present decision and any authorized amounts in the future years;
7. That the Parties listed in the annex to the present decision shall have full flexibility in sourcing the quantity of pharmaceutical-grade chlorofluorocarbons to the extent required for manufacturing of metered-dose inhalers, as authorized in paragraph 1 above, either from imports or from domestic producers or from existing stockpiles;
8. To request the Technology and Economic Assessment Panel and its Medical Technical Options Committee to organize and undertake a mission of experts to examine the technical, economic and administrative issues affecting the transition from CFC metered dose inhalers to CFC-free alternatives in the Russian Federation, and to report the results of this mission to the meeting of the thirtieth Open-ended Working Group. The Technology and Economic Assessment Panel is requested to examine:
 - a. The status of transition in the enterprises manufacturing CFC MDIs;
 - b. Technical, financial, logistical, administrative or other barriers to transition;
 - c. Possible options to overcome any barriers and facilitate the transition.

Annex

Essential-use authorizations for 2010* of chlorofluorocarbons for metered-dose inhalers

Party	2010
Argentina	178
Bangladesh	156.7
China	972.2
Egypt	227.4
India	343.6
Iran (Islamic Republic of)	105
Pakistan	34.9
Russian Federation	212
Syrian Arab Republic	44.68

* Note that the USA exemption for 2010 was authorized under Decision XX/2

Decision XXI/5: Essential-use exemption for chlorofluorocarbon-113 for aerospace applications in the Russian Federation

Noting with appreciation the work done by the Technology and Economic Assessment Panel and its Chemicals Technical Options Committee,

Taking into consideration that adequate identified alternatives for chlorofluorocarbon-113 (CFC-113) do not currently exist for use in the aerospace industry of the Russian Federation and that the

search for its alternatives continues, as confirmed in the 2006 assessment report of the Technology and Economic Assessment Panel and its Chemicals Technical Options Committee and in informal meetings with experts from the Russian Federation,

Noting that the Russian Federation continues to explore the possibility of importing CFC-113 for its aerospace industry needs from available global stocks in accordance with the recommendations of the Technology and Economic Assessment Panel and its Chemicals Technical Options Committee,

Noting that the Russian Federation is successful in reducing use and emissions on the timetable of technical transformation developed in collaboration with the Chemical Technical Options Committee,

1. To authorize the levels of production and consumption of CFC-113 in the Russian Federation for essential-use exemptions for chlorofluorocarbons in its aerospace industry in the amount of 120 metric tonnes in 2010;
2. To request the Russian Federation to explore further the possibility of importing CFC-113 for its aerospace industry needs from available global stocks in accordance with the recommendations of the Technology and Economic Assessment Panel and its Chemicals Technical Options Committee.
3. To encourage the Russian Federation to continue its efforts to explore alternatives and substitutes and to use best practices to minimize emissions.

XXI/6: Global laboratory use exemption

Noting the reports the Technology and Economic Assessment Panel (TEAP) provided under Decision XVII/10 and under Decision XIX/18 on laboratory and analytical uses of ozone depleting substances (ODS).

Noting that TEAP has identified in its report a number of procedures for which alternatives to the use of ODS are available, as summarised below:

- (a) Analyses in which the ODS is used as a solvent for spectroscopic measurements:
 - (i) of hydrocarbons (oil and grease) in water or soil
 - (ii) of simethicone (polydimethylsiloxane)
 - (iii) when recording infrared and nuclear magnetic resonance spectra, including hydroxyl index
- (b) Analyses in which the ODS is used as a solvent for electrochemical methods of analysis of:
 - (i) cyanocobalamin
 - (ii) bromine index
- (c) Analyses involving selective solubility in the ODS of:
 - (i) cascarosides
 - (ii) thyroid extracts
 - (iii) polymers
- (d) Analyses in which the ODS is used to preconcentrate the analyte, for:
 - (i) liquid chromatography (HPLC) of drugs and pesticides
 - (ii) gas chromatography of organic chemicals such as steroids
 - (iii) adsorption chromatography of organic chemicals
- (e) Titration of iodine with thiosulfate (iodometric analyses) for determination of:
 - (i) iodine
 - (ii) copper
 - (iii) arsenic

- (iv) sulphur
- (f) Iodine and bromine index measurements (titrations)
- (g) Miscellaneous analyses, namely
 - (i) stiffness of leather
 - (ii) jellification point
 - (iii) specific weight of cement
 - (iv) gas mask cartridge breakthrough
- (h) Use of ODS as a solvent in organic chemical reactions
 - (i) O- and N-difluoromethylation
- (i) General use as laboratory solvent, namely
 - (i) washing of NMR tubes
 - (ii) removal of greases from glassware

Recalling Decisions VII/11, XI/15, XVIII/15 and XIX/18 that already eliminated the following uses from the global exemption for laboratory and analytical uses:

- (a) Refrigeration and air conditioning equipment used in laboratories, including refrigerated laboratory equipment such as ultra-centrifuges;
- (b) Cleaning, reworking, repair, or rebuilding of electronic components or assemblies;
- (c) Preservation of publications and archives;
- (d) Sterilization of materials in a laboratory;
- (e) Testing of oil, grease and total petroleum hydrocarbons in water;
- (f) Testing of tar in road-paving materials;
- (g) Forensic finger-printing;
- (h) All laboratory and analytical uses of methyl bromide except:
 - (i) As a reference or standard:
 - To calibrate equipment which uses methyl bromide;
 - To monitor methyl bromide emission levels;
 - To determine methyl bromide residue levels in goods, plants and commodities;
 - (ii) In laboratory toxicological studies;
 - (iii) To compare the efficacy of methyl bromide and its alternatives inside a laboratory;
 - (iv) As a laboratory agent which is destroyed in a chemical reaction in the manner of feedstock;
- (i) Testing of organic matter in coal

Recalling the conditions applied to the exemption for laboratory and analytical uses contained in Annex II of the report of the Sixth Meeting of the Parties.

1. to extend the applicability of the global laboratory and analytical use exemption also to countries operating under Article 5(1) from 1 January 2010 until 31 December 2010 for all ODS except those in Annex B Group III, Annex C Group I and Annex E.

2. to extend the global laboratory and analytical use exemption beyond 31 December 2010 until 31 December 2014:

- (a) for Parties operating under Article 5(1) for all ODS except those in Annex B Group III, Annex C Group I and Annex E, and
- (b) for Parties not operating under Article 5(1) for all ODS except those in Annex C Group I

3. to request all Parties to urge their national standards-setting organisations to identify and review those standards which mandate the use of ODS in laboratory and analytical procedures with a view to adopting, where possible, ODS-free laboratory and analytical products and processes;

4. to request the Ozone Secretariat to enter into discussion with the International Organization for Standardization (ISO), ASTM International (ASTM), the European Committee for Standardization (CEN) as well as with other relevant multinational standardisation organisations encouraging them to identify methods based on ODS and to expedite the inclusion of non-ODS alternative methods, techniques and substances in their standard methods;

5. to request the TEAP and its Chemicals Technical Options Committee to complete the report as requested under Decision XIX/18 and to provide for the 30th Open-ended Working Group meeting

(a) a list of laboratory and analytical uses of ODS, including those uses where no alternatives exist.

(b) to identify the international and national standards that require the use of ODS and to indicate the corresponding alternative standard methods not mandating the use of ODS.

(c) to consider the technical and economical availability of those alternatives in Article-5 and non-Article-5 parties as well as to ensure that the alternative methods show similar or better statistical properties (for example accuracy or detection limits).

6. to request TEAP while continuing its work as described in paragraph 5, to evaluate the availability of alternatives for those uses already banned under the global exemption in Parties operating under Article 5(1), considering technical and economical aspects. By the 30th meeting of the Open-ended Working Group TEAP should present its findings and recommendations whether exemptions would be required for parties operating under paragraph 1 of Article 5 for any of the uses already banned.

7. to allow Parties operating under paragraph 1 of Article 5 until 31 December 2010 to deviate from the existing laboratory and analytical use bans in individual cases, where a Party considers that this is justified, and to ask Parties to revisit this issue at the 22nd Meeting of the Parties.

8. to request the Ozone Secretariat to update the list of laboratory and analytical uses that the Parties have agreed should no longer be eligible under the global exemption, as required by Decision X/19 and to write to Parties reporting laboratory and analytical uses of ozone depleting substances encouraging them to transition to non-ozone depleting alternatives, where allowed by their national standards.

9. to request Parties to continue to investigate domestically the possibility of replacing ODS in those laboratory and analytical uses listed in the report by the TEAP and to make this information available to the Ozone Secretariat by 30 April 2010.

10. To encourage UNEP to invite representatives of the Chemicals Technical Options Committee to regional network meetings to raise awareness of ODS alternatives for laboratory and analytical uses where problems have been specifically identified by members of that network. Where considered necessary other representatives from competent authorities of Parties could be invited to participate in the meeting.

XXI/7: Management and reduction of remaining uses of halons

Recognizing that the International Civil Aviation Organization (ICAO) General Assembly adopted a resolution A36-12 at its 36th Session encouraging ICAO to continue collaboration with the Technology and Economic Assessment Panel (TEAP) and its Halon Technical Options Committee (HTOC) and requesting its Secretary General to consider mandates to be effective: (1) in the 2011 timeframe, for the replacement of halon in lavatories, hand held extinguishers, engines and auxiliary power units in newly designed aircraft; (2) in the 2011 timeframe, for the replacement of halons in lavatories in new production aircraft; and (3) in the 2014 timeframe, for the replacement of halons in hand held extinguishers for new production aircraft;

Recalling that Parties must ensure that the movement of halon is consistent with their obligations under Article 4B and international agreements on waste;

Noting that the 2009 report by the Halon Technical Options Committee observed that legislative barriers preventing the free flow of recycled halon among Parties could result in halon not being available to meet future critical needs, including those of the aviation industry.

1. To express the Parties' continued support for the implementation of mandatory dates by when halon alternatives will be used in previously agreed upon applications of newly designed aircraft;
2. To request TEAP and its HTOC to continue to engage ICAO on this issue and to report progress on this issue to the twenty second Meeting of the Parties;
3. To encourage Parties that have implemented import and/or export restrictions of recovered, recycled or reclaimed halons to consider reassessing their situation with a view towards removing barriers on the import and export of recovered, recycled or reclaimed halons to allow, wherever possible, their free movement between Parties to enable Parties to meet current and future needs, even as Parties continue to transition to available halon alternatives;
4. To encourage Parties to refrain from destroying uncontaminated recovered, recycled, or reclaimed halons before they have considered their domestic, as well as the global long-term future needs for halons, and to consider retaining uncontaminated recovered, recycled, reclaimed halons for anticipated future needs in a manner that employs best practices for storage and maintenance, in order to minimize emissions;
5. To encourage Parties to report their assessments of current and long-term future needs for halons to the Ozone Secretariat for use by the TEAP and its HTOC in their future assessments of management of halon banks.
6. To continue to encourage Parties to inform, on a regular basis, their users of halons, including the maritime industries, the aviation sector and the military, of the need to prepare for reduced access to halons in the future and to take all actions necessary to reduce their reliance on halons.

Decision XXI/8: Sources of carbon tetrachloride emissions and opportunities for reductions of ODS emissions

Recalling Decision XVII/10 on sources of carbon tetrachloride (CTC) emissions and opportunities for reduction, and the difficulties expressed by Technology and Economic Assessment Panel (TEAP) in reconciling reported emissions data and atmospheric concentrations,

Reiterating the concern regarding the large discrepancy between reported emissions and observed atmospheric concentrations, which suggests that emissions from industrial activity are significantly under reported and underestimated, or that atmospheric measurements of CTC emissions need to be reconciled,

Acknowledging that CTC can be emitted from processes, stockpiles or containers in the form of vapour or released from the same sources in liquid or solid waste stream(s) and via products, all of which would also be considered as emissions,

Mindful of the obligations to ensure compliance with control measures under Article 2D of the Montreal Protocol regarding production and consumption of carbon tetrachloride,

Desiring to reduce emissions to background concentration levels,

Noting the report UNEP/OzL.Pro/ExCom/58/50 of the 58th Executive Committee on emission reductions and phase-out of carbon tetrachloride in light of decision XVIII/10 of the Eighteenth Meeting of the Parties and its verbal report to the Twentieth Meeting of the Parties concluding that the rapid decrease in model-estimated bottom-up emissions (i.e. based on information from industry and Article 7 data) is significantly lower than emissions derived from atmospheric measurements for the range of scientifically determined atmospheric lifetimes.

1. To encourage Parties having any carbon tetrachloride and other chloromethane production and/or consumption of CTC in pharmaceutical manufacturing processes to review their national data on CTC production, consumption and where possible estimated emissions and to provide any new data to the TEAP via the Ozone Secretariat by September 2010;
2. For the purpose of clarification the reference to "emissions" in paragraph 1 means any release from processes, stockpiles, products, and waste streams, either in the form of vapour or in the form of liquid;

3. To request the TEAP, in its next assessment report in 2011, to investigate chemical alternatives to ODS in exempted feedstock uses and investigate alternatives, including not-in-kind alternatives, to products made with such process agents and feedstocks and provide assessment of the technical and economic feasibility of reducing or eliminating such use and emissions;
4. To request TEAP and the Scientific Assessment Panel (SAP) to review the ozone depletion potential and atmospheric lifetime of CTC with a view to possibly reconciling the large discrepancy between emissions reported and those inferred from atmospheric measurements and to report their findings in the next quadrennial review;
5. To request the TEAP and SAP to coordinate their relevant findings, taking into account the information received in relation to paragraphs 1, 3 and 4, and report in time for the thirty-first meeting of the Open-ended Working Group for the consideration of the Twenty-third Meeting of the Parties in 2011;
6. To encourage all parties to provide support for atmospheric research in the measurement of emissions of CTC with a particular focus on regions in which there is a need for improved data;

XXI/9: Hydrochlorofluorocarbons and environmentally sound alternatives

Noting that the transition from, and phase-out of, ozone-depleting substances has implications for climate system protection;

Recalling that decision XIX/6 requests the Parties to accelerate the phase-out of production and consumption of hydrochlorofluorocarbons (HCFCs);

Mindful of the need to safeguard the climate change benefits associated with phase-out of HCFCs;

Aware of the increasing availability of low-Global warming potential (GWP) alternatives to HCFCs, in particular in the refrigeration, air-conditioning and foam sectors;

Aware also of the need to appropriately ensure the safe implementation and use of low-GWP technologies and products;

Recalling para 9 and 11 (b) of decision XIX/6;

1. To request the Technology and Economic Assessment Panel (TEAP), in its May 2010 Progress Report and subsequently in its 2010 full assessment, to provide the latest technical and economic assessment of available and emerging alternatives and substitutes to HCFCs; and the Scientific Assessment Panel (SAP) in its 2010 assessment to assess, using a comprehensive methodology, the impact of alternatives to HCFCs on the environment, including on the climate; and both the SAP and the TEAP to integrate the findings in their assessments into a synthesis report;
2. To request the Technology and Economic Assessment Panel in its 2010 progress report:
 - (a) To list all sub-sectors using HCFCs, with concrete examples of technologies where low-GWP alternatives are used, indicating what substances are used, conditions of application, their costs, relative energy efficiency of the applications and, to the extent possible, available markets and percentage share in those markets and collecting concrete information from various sources including information voluntarily provided by Parties and industries. To further ask TEAP to compare these alternatives with other existing technologies, in particular, high-GWP technologies that are in use in the same sectors;
 - (b) To identify and characterize the implemented measures for ensuring safe application of low-GWP alternative technologies and products as well as barriers to their phase-in, in the different sub-sectors, collecting concrete information from various sources including information voluntarily provided by Parties and industries;
 - (c) To provide a categorization and reorganization of the information previously provided in accordance with decision XX/8 as appropriate, updated to the extent practical, to inform the Parties of the uses for which low- or no-GWP and/or other suitable technologies are or will soon be commercialized, including to the extent possible the predicted amount of high-GWP alternatives to ozone-depleting substances uses that can potentially be replaced;

3. To request the Ozone Secretariat to provide the UNFCCC Secretariat with the report of the workshop on high global-warming-potential alternatives for ozone-depleting substances;
4. To encourage Parties to promote policies and measures aimed at avoiding the selection of high-GWP alternatives to HCFCs and other ozone-depleting substances in those applications where other market-available, proven and sustainable alternatives exist that minimise impacts on the environment, including on climate, as well as meeting other health, safety and economic considerations in accordance with decision XIX/6;
5. To encourage Parties to promote the further development and availability of low-GWP alternatives to HCFCs and other ozone-depleting substances that minimise environmental impacts particularly for those specific applications where such alternatives are not presently available and applicable;
6. To request the Executive Committee as a matter of urgency to expedite the finalisation of its guidelines on HCFCs in accordance with Decision XIX/6;
7. To request the Executive Committee, when developing and applying funding criteria for projects and programmes regarding in particular the phase-out of HCFCs:
 - (a) to take into consideration paragraph 11 of decision XIX/6;
 - (b) to consider providing additional funding and/or incentives for additional climate benefits where appropriate;
 - (c) to take into account, when considering the cost-effectiveness of projects and programmes, the need for climate benefits; and
 - (d) to consider in accordance with decision XIX/6, further demonstrating the effectiveness of low-GWP alternatives to HCFCs, including in air-conditioning and refrigeration sectors in high ambient temperature areas in Article 5 countries and to consider demonstration and pilot projects in air-conditioning and refrigeration sectors which apply environmentally sound alternatives to HCFCs;
8. To encourage Parties to consider reviewing and amending as appropriate, policies and standards which constitute barriers to or limit the use and application of products with low- or zero-GWP alternatives to ozone-depleting substances, particularly when phasing out HCFCs.

XXI/10: Quarantine and pre-shipment uses of methyl bromide

Recognizing that methyl bromide use for quarantine and pre-shipment purposes is identified in the 2006 assessment report of the Scientific Assessment Panel as a remaining uncontrolled use of ozone-depleting substances of which the emissions may delay recovery of the ozone layer,

Mindful of the Scientific Assessment report scenarios which calculated that the integrated total chlorine and bromine in the atmosphere from 2007 to 2050 (equivalent effective stratospheric chlorine, EESC) would be reduced by 3.2% if all quarantine and pre-shipment emissions were eliminated by 2015,

Mindful that the use of methyl bromide for quarantine and pre-shipment purposes is still increasing in some regions,

Acknowledging the efforts made by Parties to phase out or reduce the use and emissions of methyl bromide for quarantine and pre-shipment purposes,

Noting that 22 non-Article 5 Parties and 54 Article 5 Parties have reported data on current quarantine and pre-shipment consumption, that 31 other Parties which used quarantine and pre-shipment in the past have reduced their quarantine and pre-shipment consumption to zero, and that 14 additional Parties will cease next year and that a further 27 Parties are scheduled to cease consumption by 1 January 2010;

Noting that the Technology and Economic Assessment Panel's Task Force¹ concluded that there are technically feasible alternatives which may replace a large proportion of the quarantine and pre-shipment uses of methyl bromide, especially in sawn timber, wood packaging material (ISPM 15), grains and similar foodstuffs, pre-plant soils use and logs;

1 Table 9-1 (p.138) of the QPS Task Force report of October 2009

Aware that, particularly for compliance with ISPM 15, there are more than 6,000 certified heat treatment facilities deployed in many countries, and that not-in-kind alternatives (such as plastic pallets or cardboard pallets) are available worldwide, including in many Article 5 countries, and do not require any treatment under ISPM 15; also noting that the ISPM 15 standard encourages national plant protection organisations (NPPOs) to promote the use of alternative treatments approved in that standard.

Further noting that under the International Plant Protection Convention alternative treatments are currently under review.

Noting the importance of monitoring quarantine and pre-shipment uses of methyl bromide and their reporting under Article 7 in order to assess the contribution of quarantine and pre-shipment uses to methyl bromide emissions into the atmosphere.

Aware that several Parties have succeeded in reducing quarantine and pre-shipment consumption by adopting policy measures such as promoting the adoption of alternatives, reviewing regulatory requirements, allowing alternative options, adopting ‘polluter pays’ taxes on methyl bromide imports, and/or limiting quarantine and pre-shipment consumption;

Noting that methyl bromide use and emissions can also be reduced by technical improvements in fumigation practices, such as using gas-tight structures, determining minimum effective methyl bromide doses, monitoring during fumigation to minimise re-dosing, using recovery equipment, and treating wood packing materials prior to loading containers rather than treating entire loaded containers;

1. *To remind* Parties of their obligations to report annual data on the consumption of methyl bromide for quarantine and pre-shipment under Article 7 and to establish and implement a system for licensing trade in methyl bromide, including quarantine and pre-shipment, under Article 4B;

2. *To invite* Parties to collect data on quarantine and pre-shipment according to Decision XI/13, and to consider using the format provided in the Technology and Economic Assessment Panel’s report of April 1999;

3. *To request* the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee, in consultation with other relevant experts and the IPPC Secretariat to provide a report to be considered by the 30th meeting of the Open-ended Working Group covering the following:

(1) A review of available information on the technical and economical feasibility of alternatives, and the estimated availability, for the following categories of quarantine and pre-shipment uses:

- a. sawn timber and wood packaging material (ISPM 15);
- b. grains and similar foodstuffs;
- c. pre-plant soils use;
- d. logs;

(2) The current availability and market penetration rate of quarantine and pre-shipment alternatives to the uses listed in paragraph 3(1) above, and their relation with regulatory requirements and other drivers for the implementation of alternatives;

(3) An update of table 9.1 of the 2009 Task Force report to include economic aspects, and to take account of the information compiled under this paragraph, distinguishing between Article 5 and non Article 5 parties and between quarantine and pre-shipment uses separately;

(4) A description of a draft methodology, including assumptions, limitations, objective parameters, the variations within and between countries and how to take account of them, that the Technology and Economic Assessment Panel would use, if requested by the Parties, for the assessment of the technical and economical feasibility of alternatives, of the impact of their implementation and of the impacts of restricting the quantities of methyl bromide production and consumption for quarantine and pre-shipment uses;

4. *To encourage* Parties to apply best-practice measures to reduce methyl bromide quarantine and pre-shipment use and emissions, that may include the review of required use dosages, gas tightness controls, monitoring during fumigation and other measures to minimize methyl bromide dosages, and, in applications where alternatives are not yet available, the recovery and possible reuse of methyl bromide, and to review the methyl bromide quarantine and pre-shipment requirements for possibilities of introducing alternative mitigation measures whenever possible;

5. *To encourage* Parties to consider adopting, where possible within their national policy framework, incentives to promote the transition to alternatives such as deposit/rebate schemes or other financial measures;

6. *To encourage* Parties or regions to use the October 2009 Technology and Economic Assessment Panel quarantine and pre-shipment task force report to develop documents that summarise information on technical options to reduce emissions, and on adopted technologies that have replaced methyl bromide quarantine and pre-shipment applications, the reductions achieved, the investments needed, the operating costs, and the funding strategies;

7. *To encourage* Parties to implement the recommendations of the third meeting of the Commission of the Phytosanitary Measures under the IPPC, also referred to in Decision XX/6;

XXI/11: Critical-use exemptions for methyl bromide for 2010 and 2011

Noting with appreciation the work done by the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee,

Recognizing the significant reductions made in critical use nominations in many Parties,

Recalling paragraph 10 of decision XVII/9,

1. To permit, for the agreed critical-use categories for 2010 set forth in table A of the annex to the present decision for each Party, subject to the conditions set forth in the present decision and decision Ex.I/4 to the extent that those conditions are applicable, the levels of production and consumption for 2010 set forth in table B of the annex to the present decision which are necessary to satisfy critical uses, in addition to the amounts permitted in decision XX/5;

2. To permit, for the agreed critical-use categories for 2011 set forth in table C of the annex to the present decision for each Party, subject to the conditions set forth in the present decision and in decision Ex.I/4 to the extent that those conditions are applicable, the levels of production and consumption for 2011 set forth in table D of the annex to the present decision which are necessary to satisfy critical uses, with the understanding that additional levels of production and consumption and categories of uses may be approved by the Meeting of the Parties in accordance with decision IX/6;

3. That Parties shall endeavour to license, permit, authorize or allocate quantities of critical-use methyl bromide as listed in tables A and C of the annex to the present decision;

4. To recognize the continued contribution of the Methyl Bromide Technical Options Committee's expertise and to agree that, in accordance with section 4.1 of the Technology and Economic Assessment Panel's terms of reference, the Committee should ensure that it develops its recommendations in a consensus process that includes full discussion among all available members of the Committee and should ensure that members with relevant expertise are involved in developing its recommendations;

5. To request the Technology and Economic Assessment Panel to ensure that the critical use recommendations reported in its annual progress report clearly set out the reasons for recommendations and that, where requests are received from Parties for further information, the Methyl Bromide Technical Options Committee should provide a response within four weeks of the submission of such a request;

6. That each Party which has an agreed critical use exemption renews its commitment to ensure that the criteria in paragraph 1 of decision IX/6 are applied when licensing, permitting or authorizing critical use of methyl bromide and, in particular, the criterion laid down in paragraph 1 (b) (ii) of decision IX/6. Each Party is requested to report on the implementation of the present paragraph to the Ozone Secretariat by 1 February for the years to which the present decision applies.

7. To request all Parties that have nominated a critical use exemption to report data on stocks using the accounting framework agreed at the 16th Meeting of the Parties and to urge Parties that have not yet provided such a report to submit the accounting framework prior to the 22nd Meeting of the Parties.

8. When submitting nominations, Parties are requested to submit updates of the reports requested in the decisions on critical uses including the following:

- i. National Management Strategy under decision Ex.I/4(3), if there are significant changes
- ii. Methyl bromide alternative database under decision Ex.I/4(2)
- iii. Information to enable the Methyl Bromide Technical Options Committee to report on the amount of critical use categories licensed, permitted, authorised or the amount used

9. The Methyl Bromide Technical Options Committee is requested to summarise in the table on its recommendations for each nomination information on adherence with each criterion set out in decision IX/6(1)(a)(ii) and (b)(i) and (b)(iii) and other relevant decisions of the Parties.

Table A. 2010 agreed critical use categories (metric tonnes)

Canada	Pasta (3.529)
Israel	Broomrape protected (12.50), cucumber (15.937), cut flowers & bulbs protected (63.464), cut flowers open field (28.554), dates (1.04), melon protected & open field (70.00), strawberry fruit – Sharon and Gaza (57.063), strawberry runners – Sharon and Gaza (22.320), sweet potatoes (20.000)
United States of America	Strawberry runners (2.018)

Table B. 2010 permitted levels of production and consumption (metric tonnes)

Canada	3.529
Israel	290.878
United States of America	2.018*

* *Minus available stocks*

Table C. 2011 agreed critical use categories (metric tonnes)

Australia	Strawberry runners (23.840), Rice (4.87)
Canada	Mills (14.107), strawberry runners (Prince Edward Island) (5.261)
Japan	Chestnuts (5.35), cucumbers (27.621), ginger - field (47.450), ginger – protected (7.036), melons (73.548), pepper - green and hot (65.691), watermelon (13.050)
United States of America	Commodities (5.0), NPMA food processing structures (17.365), mills and processors (135.299), dried cured pork (3.73), cucurbits (195.698), eggplant – field (19.725), forest nursery seedlings (93.547), nursery stock – fruit, nut, flower (7.955), orchard replant (183.232) ornamentals (64.307), peppers – field (206.234), strawberries – field (812.709), strawberry runners (6.036), tomatoes – field (292.751), sweet potato slips (11.612)

Table D. 2011 permitted levels of production and consumption (metric tonnes)

Australia	28.710
Canada	19.368
Japan	239.746
United States of America	1855.2*

* *Minus available stocks*

XXI/12: Report on the establishment of licensing systems under Article 4B of the Montreal Protocol

Noting that paragraph 3 of Article 4B of the Montreal Protocol requires each Party, within three months of the date of introducing its system for licensing the import and export of new, used, recycled and reclaimed controlled substances in Annexes A, B, C and E of the Protocol, to report to the Secretariat on the establishment and operation of that system,

Noting with appreciation that 174 out of the 178 Parties to the Montreal Amendment to the Protocol have established import and export licensing systems for ozone-depleting substances as required under the terms of the amendment,

Noting also with appreciation that 12 Parties to the Protocol that have not yet ratified the Montreal Amendment have also established import and export licensing systems for ozone-depleting substances,

Recognizing that licensing systems provide for the monitoring of imports and exports of ozone-depleting substances, prevent illegal trade and enable data collection,

1. To encourage all remaining Parties to the Protocol that have not yet ratified the Montreal Amendment to ratify it and to establish import and export licensing systems for ozone-depleting substances if they have not yet done so;
2. To urge all Parties that already operate licensing systems for ozone-depleting substances to ensure that they are structured in accordance with Article 4B of the Protocol and that they are implemented and enforced effectively;
3. To review periodically the status of the establishment of import and export licensing systems for ozone-depleting substances by all Parties to the Protocol, as called for in Article 4B of the Protocol;

XXI/13: Endorsement of the new co-chair of the Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee of the Technology and Economic Assessment Panel

To endorse the selection of Mr. Roberto Peixoto (Brazil) as the new Co-Chair of the Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee;

XXI/14: Data and information provided by the Parties in accordance with Article 7 of the Montreal Protocol

Noting with appreciation that 188 Parties out of the 193 that should have reported data for 2008 have done so and that 64 of those Parties reported their data by 30 June 2009 in accordance with decision XV/15,

Noting with concern, however, that the following Parties have still not reported 2008 data: Angola, Democratic People's Republic of Korea, Malta, Nauru, United Arab Emirates,

Noting that their failure to report their 2008 data in accordance with Article 7 places those Parties in non-compliance with their data-reporting obligations under the Montreal Protocol until such time as the Secretariat receives their outstanding data,

Noting also that a lack of timely data reporting by Parties impedes the effective monitoring and assessment of Parties' compliance with their obligations under the Montreal Protocol,

Noting further that reporting by 30 June each year greatly facilitates the work of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol in assisting Parties operating under paragraph 1 of Article 5 of the Protocol to comply with the Protocol's control measures,

1. To urge the Parties listed in the present decision, where appropriate, to work closely with the implementing agencies to report the required data to the Secretariat as a matter of urgency;
2. To request the Implementation Committee to review the situation of those Parties at its next meeting;

3. To encourage Parties to continue to report consumption and production data as soon as figures are available, and preferably by 30 June each year, as agreed in decision XV/15;

XXI/15: Reporting of methyl bromide for quarantine and pre-shipment use

Noting that quarantine and pre-shipment applications are currently not controlled under the Montreal Protocol,

Noting also that some Parties may not be reporting data fully on these applications,

Noting further the difficulty of assessing non-compliance with the reporting obligations for quarantine and pre-shipment applications of methyl bromide owing to the current procedure for processing data reported under Article 7 of the Montreal Protocol,

To urge Parties that have not reported data on quarantine and pre-shipment applications for previous years to do so expeditiously and to urge all Parties to report such data annually as required under paragraph 3 of Article 7 of the Montreal Protocol;

XXI/16: Membership of the Implementation Committee

1. To note with appreciation the work done by the Implementation Committee under the Non-compliance Procedure for the Montreal Protocol in 2009;

2. To confirm the positions of Armenia, Germany, Nicaragua, the Niger and Sri Lanka as members of the Committee for one further year and to select Egypt, Jordan, St. Lucia, Russian Federation and United States of America as members of the Committee for a two-year period beginning 1 January 2010;

3. To note the selection of Mr. Ezzat Lewis (Egypt) to serve as President and of Ms. Elisabeth Munzart (Germany) to serve as Vice-President and Rapporteur of the Committee for one year beginning on 1 January 2010;

XXI/17: Non-compliance in 2007 and 2008 with the provisions of the Protocol governing consumption of the controlled substances in Annex A, group I (chlorofluorocarbons), by Bangladesh

Noting that Bangladesh ratified the Montreal Protocol on 2 August 1990, the London Amendment on 18 March 1994, the Copenhagen Amendment on 27 November 2000 and the Montreal Amendment on 27 July 2001, and is classified as a Party operating under paragraph 1 of Article 5 of the Protocol,

Noting also that the Executive Committee has approved \$6,339,765 from the Multilateral Fund to enable Bangladesh's compliance in accordance with Article 10 of the Protocol,

1. That Bangladesh reported annual consumption for the controlled substances in Annex A, group I (chlorofluorocarbons), of 154.9 ODP-tonnes for 2007 and 158.3 ODP-tonnes for 2008, which exceeds the Party's maximum allowable consumption of 87.2 ODP-tonnes for those controlled substances for those years, and that the Party is therefore in non-compliance with the control measures for those substances under the Protocol for those years;

2. To note with appreciation Bangladesh's submission of a plan of action to ensure its prompt return to compliance with the Protocol's chlorofluorocarbon control measures under which, without prejudice to the operation of the financial mechanism of the Protocol, Bangladesh specifically commits itself:

- (a) To reducing chlorofluorocarbon consumption to no greater than:
 - (i) 140 ODP-tonnes in 2009;
 - (ii) Zero ODP-tonnes in 2010, save for essential uses that may be authorized by the Parties;

(b) To monitoring its system for licensing the import and export of ozone-depleting substances, including import quotas;

3. To urge Bangladesh to work with the relevant implementing agencies to implement its plan of action to phase out consumption of chlorofluorocarbons;

4. To monitor closely the progress of Bangladesh with regard to the implementation of its plan of action and the phase-out of chlorofluorocarbons. To the degree that the Party is working towards and meeting the specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing. In that regard, Bangladesh should continue to receive international assistance to enable it to meet those commitments in accordance with item A of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance;

5. To caution Bangladesh, in accordance with item B of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance, that in the event that it fails to return to compliance the Parties will consider measures consistent with item C of the indicative list of measures. Those measures may include the possibility of actions available under Article 4, such as ensuring that the supply of chlorofluorocarbons that are the subject of non-compliance is ceased so that exporting Parties are not contributing to a continuing situation of non-compliance;

XXI/18: Non-compliance in 2007 and 2008 with the provisions of the Protocol governing consumption of the controlled substances in Annex A, group I (chlorofluorocarbons), by Bosnia and Herzegovina

Noting that Bosnia and Herzegovina ratified the Montreal Protocol on 30 November 1993 and the London, Copenhagen and Montreal Amendments on 11 August 2003 and is classified as a Party operating under paragraph 1 of Article 5 of the Protocol,

Noting also that the Executive Committee has approved \$3,421,231 from the Multilateral Fund to enable Bosnia and Herzegovina's compliance in accordance with Article 10 of the Protocol,

1. That Bosnia and Herzegovina reported annual consumption for the controlled substances in Annex A, group I (chlorofluorocarbons), of 22.1 ODP-tonnes for 2007 and 8.8 ODP-tonnes for 2008, which exceeds the Party's maximum allowable consumption of 3.6 ODP-tonnes for those controlled substances for those years, and that the Party is therefore in non compliance with the control measures for those substances under the Protocol for those years;

2. To note with appreciation Bosnia and Herzegovina's submission of a plan of action to ensure its prompt return to compliance with the Protocol's chlorofluorocarbon control measures under which, without prejudice to the operation of the financial mechanism of the Protocol, Bosnia and Herzegovina specifically commits itself:

(a) To reducing chlorofluorocarbon consumption to no greater than:

(i) Zero ODP-tonnes in 2009;

(ii) Zero ODP-tonnes in 2010, save for essential uses that may be authorized by the Parties;

(b) To monitoring its system for licensing the import and export of ozone-depleting substances, including import quotas;

3. To urge Bosnia and Herzegovina to work with the relevant implementing agencies to implement its plan of action to phase out consumption of chlorofluorocarbons;

4. To monitor closely the progress of Bosnia and Herzegovina with regard to the implementation of its plan of action and the phase-out of chlorofluorocarbons. To the degree that the Party is working towards and meeting the specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing. In that regard, Bosnia and Herzegovina should continue to receive international assistance to enable it to meet those commitments in accordance with item A of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance;

5. To caution Bosnia and Herzegovina in accordance with item B of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance, that, in the event that it fails to return to compliance, the Parties will consider measures consistent with item C of the

indicative list of measures. Those measures may include the possibility of actions available under Article 4, such as ensuring that the supply of chlorofluorocarbons that are the subject of non-compliance is ceased so that exporting Parties are not contributing to a continuing situation of non-compliance;

XXI/19: Compliance with the Montreal Protocol by the Federated States of Micronesia

1. That the Federated States of Micronesia reported annual consumption of the controlled substances in Annex A, group I (chlorofluorocarbons), of 0.5 ODP-tonnes for 2007, which exceeds the Party's maximum allowable consumption of 0.2 ODP-tonnes for those controlled substances for that year, and that the Party is therefore in non-compliance with the control measures for those substances under the Protocol for that year;

2. To note, however, that in response to the request for an explanation for its excess consumption, the Federated States of Micronesia has reported that it had begun to enforce its licensing system, which took effect in November 2007;

3. To note further the Federated States of Micronesia's return to compliance in 2008 and its commitment to ban imports of chlorofluorocarbons from 2009 onward;

4. To monitor closely the progress of the Party with regard to its implementation of its obligations under the Protocol;

XXI/20: Non-compliance in 2008 with the provisions of the Protocol governing consumption of the controlled substance in Annex B, group II (carbon tetrachloride), by Mexico

Noting that Mexico ratified the Montreal Protocol on 31 March 1988, the London Amendment on 11 October 1991, the Copenhagen Amendment on 16 September 1994, the Montreal Amendment on 28 July 2006 and the Beijing Amendment on 12 September 2007, and is classified as a Party operating under paragraph 1 of Article 5 of the Protocol,

Noting also that the Executive Committee has approved \$96,073,703 from the Multilateral Fund to enable Mexico's compliance in accordance with Article 10 of the Protocol,

1. That Mexico reported annual consumption for the controlled substances in Annex B, group II (carbon tetrachloride), of 88.0 ODP-tonnes in 2008, an amount inconsistent with its commitment contained in decision XVIII/30 to reduce carbon tetrachloride consumption to no greater than 9.376 ODP-tonnes in that year, and that the Party is therefore in non-compliance with the control measures for that substance under the Protocol for that year;

2. To record with appreciation the submission by Mexico of a plan of action to ensure its prompt return to compliance with the Protocol's carbon tetrachloride consumption control measures under which, without prejudice to the operation of the financial mechanism of the Protocol, Mexico specifically commits itself:

(a) To reducing carbon tetrachloride consumption to no greater than zero ODP-tonnes in 2009 and thereafter;

(b) To monitoring its system for licensing the import and export of ozone-depleting substances, including import quotas;

3. To urge Mexico to work with the relevant implementing agencies to implement its plan of action to phase out consumption of carbon tetrachloride;

4. To monitor closely the progress of Mexico with regard to the implementation of its plan of action and the phase-out of carbon tetrachloride. To the degree that the Party is working towards and meeting the specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing. In that regard, Mexico should continue to receive international assistance to enable it to meet those commitments in accordance with item A of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance;

5. To caution Mexico, in accordance with item B of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance, that in the event that it fails to return

to compliance the Parties will consider measures consistent with item C of the indicative list of measures. Those measures may include the possibility of actions available under Article 4, such as ensuring that the supply of carbon tetrachloride that is the subject of non-compliance is ceased so that exporting Parties are not contributing to a continuing situation of non-compliance;

XXI/21: Non-compliance in 2007 with the provisions of the Protocol governing consumption of the controlled substances in Annex A, group I (chlorofluorocarbons), by Saudi Arabia and request for a plan of action

Noting that Saudi Arabia ratified the Montreal Protocol, and the London and Copenhagen Amendments on 1 March 1993, and is classified as a Party operating under paragraph 1 of Article 5 of the Protocol,

Noting also that the Executive Committee has approved \$2,378,485 from the Multilateral Fund to enable Saudi Arabia's compliance in accordance with Article 10 of the Protocol,

1. That Saudi Arabia has reported annual consumption for the controlled substances in Annex A, group I (chlorofluorocarbons), for 2007 of 657.8 ODP-tonnes, which exceeds the Party's maximum allowable consumption of 269.8 ODP-tonnes for those controlled substances for that year, and that the Party is therefore in non-compliance with the control measures for those substances under the Protocol for that year;

2. To request Saudi Arabia to submit to the Secretariat, as a matter of urgency and no later than 31 March 2010, for consideration by the Implementation Committee at its next meeting, a plan of action with time-specific benchmarks to ensure the Party's prompt return to compliance;

3. To monitor closely the progress of Saudi Arabia with regard to the phase-out of chlorofluorocarbons. To the degree that the Party is working towards and meeting the specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing. In that regard, Saudi Arabia should continue to receive international assistance to enable it to meet its commitments in accordance with item A of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance;

4. To caution Saudi Arabia, in accordance with item B of the indicative list of measures, that in the event that it fails to return to compliance in a timely manner the Meeting of the Parties will consider measures consistent with item C of the indicative list of measures. Those measures may include the possibility of actions available under Article 4, such as ensuring that the supply of the chlorofluorocarbons that are the subject of non-compliance is ceased so that exporting Parties are not contributing to a continuing situation of non-compliance;

XXI/22: Compliance with the Montreal Protocol by Solomon Islands

1. That Solomon Islands reported annual consumption for the controlled substances in Annex A, group I (chlorofluorocarbons), of 1.4 ODP-tonnes for 2006, which exceeds the Party's maximum allowable consumption of 1.1 ODP-tonnes for those controlled substances for that year, and that the Party is therefore in non-compliance with the control measures for those substances under the Protocol for that year;

2. To note, however, that in response to the request for an explanation for its excess consumption contained in decision XX/18 of the Twentieth Meeting of the Parties, Solomon Islands reported that its Custom and Excise Act had been amended in 2007 to include restrictions on imports of chlorofluorocarbons, which therefore had not applied formally prior to that year;

3. To note further Solomon Islands' return to compliance in 2007 and its commitment to restrict imports of chlorofluorocarbons, which had taken effect from 2008;

4. To monitor closely the progress of the Party with regard to its implementation of its obligations under the Protocol;

XXI/23: Non-compliance with the Montreal Protocol by Somalia

Noting that Somalia ratified the Montreal Protocol and its London, Copenhagen, Montreal and Beijing Amendments on 1 August 2001 and is classified as a Party operating under paragraph 1 of Article 5 of the Protocol,

Noting also that, while Somalia has not yet had a country programme approved by the Executive Committee of the Multilateral Fund, a country programme has been submitted to the Committee for consideration at its fifty-ninth meeting and is recommended for approval,

1. That Somalia reported annual consumption for the controlled substances in Annex A, group I (chlorofluorocarbons), for 2007 of 79.5 ODP-tonnes, which exceeds the Party's maximum allowable consumption of 36.2 ODP-tonnes for those controlled substances for that year and that Somalia was therefore in non-compliance with the control measures for those substances under the Protocol for that year;

2. To note, however, that Somalia's reported chlorofluorocarbon consumption for 2008 was in compliance with its obligations under the chlorofluorocarbon control measures of the Montreal Protocol for that year;

3. To note with appreciation Somalia's introduction, as called for in decision XX/19, of a system for licensing the imports and exports of ozone-depleting substances, including import quotas, which had taken effect from October 2009;

4. To note also with appreciation Somalia's submission of a plan of action to ensure its prompt return to compliance with the Protocol's chlorofluorocarbon control measures under which, without prejudice to the operation of the financial mechanism of the Protocol, Somalia specifically commits itself:

(a) To reducing chlorofluorocarbon consumption to no greater than zero ODP-tonnes in 2010, save for essential uses that may be authorized by the Parties;

(b) To monitoring its system for licensing the import and export of ozone-depleting substances, including import quotas;

5. To urge Somalia to work with the relevant implementing agencies to implement its plan of action to phase out consumption of chlorofluorocarbons;

6. To monitor closely the progress of Somalia with regard to the implementation of its plan of action and the phase-out of chlorofluorocarbons. To the degree that the Party is working towards and meeting the specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing. In that regard, Somalia should continue to receive international assistance to enable it to meet those commitments in accordance with item A of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance;

7. To caution Somalia in accordance with item B of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance, that, in the event that it fails to return to compliance, the Parties will consider measures consistent with item C of the indicative list of measures. Those measures may include the possibility of actions available under Article 4, such as ensuring that the supply of chlorofluorocarbons that are the subject of non-compliance is ceased so that exporting Parties are not contributing to a continuing situation of non-compliance;

XXI/24: Difficulties faced by Timor-Leste as a new Party

Notes with appreciation Timor-Leste's joining the international community in its efforts to protect the ozone layer, with its accession to the Vienna Convention, the Montreal Protocol and all its amendments, making the Vienna Convention and the Montreal Protocol the first international treaties deposited with the United Nations Secretary General to have universal participation,

Notes also that the ozone treaties will enter into force for Timor-Leste on 16 December 2009,

Recognizing the difficulties faced by Timor-Leste by joining the Vienna Convention and the Montreal Protocol and all its amendments shortly before key phase-out dates,

Understanding Timor-Leste's commitments for phasing out ozone-depleting substances under the Montreal Protocol and its amendments within a limited time frame,

1. To urge all Parties to assist Timor-Leste, as a new Party, in controlling the export of ozone-depleting substances and ozone-depleting substance-based technologies into Timor-Leste through the control of trade as per the provisions of the Montreal Protocol and relevant decisions of the Meeting of the Parties and to encourage Timor-Leste to participate in an informal prior informed consent process as referred to in decision XIX/12;

2. To request the Executive Committee when considering project proposals for Timor-Leste to phase out ozone-depleting substances to take into account the special situation of this new Party, which may face difficulties in the phase out of ozone-depleting substances in annexes A, B and E, and to be flexible in considering the project proposals, without prejudice to the possible review of the non-compliance situation of Timor-Leste by the Parties;

3. To request the implementing agencies to provide appropriate assistance to Timor-Leste in institutional strengthening, capacity building, data collection, development of its country programme and national phase-out plans and in continuing its efforts to report to the Secretariat next year, data on consumption of ozone-depleting substances in accordance with the Montreal Protocol requirements;

4. To request the Implementation Committee to consider difficulties faced by Timor-Leste when addressing any possible non-compliance situations faced by Timor-Leste after the date on which the Protocol and its Amendments enter into force for Timor-Leste and report on the compliance situation of Timor-Leste to the Open-ended Working Group preceding the Twenty-Fourth Meeting of the Parties, during which the present decision will be reconsidered.

XXI/25: Non-compliance in 2007 with the provisions of the Protocol governing consumption of the controlled substance in Annex B, group II (carbon tetrachloride), by Turkmenistan and request for a plan of action

Noting that Turkmenistan ratified the Montreal Protocol on 18 November 1993, and the London Amendment on 15 March 1994, and the Copenhagen, Montreal and Beijing Amendments on 28 March 2008, and is classified as a Party operating under paragraph 1 of Article 5 of the Protocol,

Noting also that the Executive Committee has approved \$336,973 from the Multilateral Fund to enable Turkmenistan's compliance in accordance with Article 10 of the Protocol,

1. That Turkmenistan has reported annual consumption for the controlled substance in Annex B, group II (carbon tetrachloride), for 2008 of 0.3 ODP-tonnes, which exceeds the Party's maximum allowable consumption of zero ODP-tonnes for that controlled substance for that year, and that the Party is therefore in non compliance with the control measures for that substance under the Protocol for that year;

2. To request Turkmenistan to submit to the Secretariat, as a matter of urgency and no later than 31 March 2010, for consideration by the Implementation Committee at its next meeting, a plan of action with time-specific benchmarks to ensure the Party's prompt return to compliance;

3. To monitor closely the progress of Turkmenistan with regard to the phase-out of carbon tetrachloride. To the degree that the Party is working towards and meeting the specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing. In that regard, Turkmenistan should continue to receive international assistance to enable it to meet its commitments in accordance with item A of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance;

4. To caution Turkmenistan in accordance with item B of the indicative list of measures, that in the event that it fails to return to compliance in a timely manner the Meeting of the Parties will consider measures consistent with item C of the indicative list of measures. Those measures may include the possibility of actions available under Article 4, such as ensuring that the supply of the carbon tetrachloride that is the subject of non-compliance is ceased so that exporting Parties are not contributing to a continuing situation of non-compliance;

XXI/26: Non-compliance in 2007 and 2008 with the control measures of the Montreal Protocol governing consumption of the controlled substances in Annex A group I (CFCs), by Vanuatu and request for a plan of action

Noting that Vanuatu ratified the Montreal Protocol, and the London and Copenhagen Amendments on 21 November 1994, and is classified as a Party operating under paragraph 1 of Article 5 of the Protocol,

Noting also that the Executive Committee has approved \$88,020 from the Multilateral Fund to enable Vanuatu's compliance in accordance with Article 10 of the Protocol,

1. That Vanuatu has reported annual consumption for the controlled substances in Annex A, group I (chlorofluorocarbons), for 2007 of 0.3 ODP-tonnes and for 2008 of 0.7 ODP-tonnes, which exceeds the Party's maximum allowable consumption of zero ODP-tonnes for those controlled substances for those years, and that the Party is therefore in non-compliance with the control measures for those substances under the Protocol for those years;

2. To request Vanuatu to submit to the Secretariat, as a matter of urgency and no later than 31 March 2010, for consideration by the Implementation Committee at its next meeting, a plan of action with time-specific benchmarks to ensure the Party's prompt return to compliance;

3. To monitor closely the progress of Vanuatu with regard to the phase-out of chlorofluorocarbons. To the degree that the Party is working towards and meeting the specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing. In that regard, Vanuatu should continue to receive international assistance to enable it to meet its commitments in accordance with item A of the indicative list of measures that may be taken by a Meeting of the Parties in respect of non-compliance;

4. To caution Vanuatu, in accordance with item B of the indicative list of measures, that in the event that it fails to return to compliance in a timely manner the Meeting of the Parties will consider measures consistent with item C of the indicative list of measures. Those measures may include the possibility of actions available under Article 4, such as ensuring that the supply of the chlorofluorocarbons that are the subject of non-compliance is ceased so that exporting Parties are not contributing to a continuing situation of non-compliance;

XXI/27: Membership of the Executive Committee of the Multilateral Fund

1. To note with appreciation the work done by the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol with the assistance of the Fund secretariat in 2009;

2. To endorse the selection of Belgium, France, Canada, Japan, Switzerland, Ukraine and United States of America as members of the Executive Committee representing Parties not operating under paragraph 1 of Article 5 of the Protocol and the selection of Colombia, Grenada, Morocco, Namibia, India, Saudi Arabia and Senegal as members representing Parties operating under that paragraph, for one year beginning 1 January 2010;

3. To note the selection of Mr. Javier Camago (Colombia) to serve as Chair and Mr. Philippe Chemouny (Canada) to serve as Vice-Chair of the Executive Committee for one year beginning 1 January 2010;

XXI/28: Evaluation of the financial mechanism of the Montreal Protocol

To start discussing the terms of reference for an evaluation of the financial mechanism of the Montreal Protocol during the thirtieth meeting of the Open-ended Working Group, in 2010, and to finalize them during the Twenty-Third Meeting of the Parties, in 2011, at the latest.

XXI/29: Institutional strengthening

Taking into account that the Parties to the Montreal Protocol have assumed a firm commitment to recover and protect the ozone layer,

Acknowledging that institutional strengthening support from the Multilateral Fund has played a paramount role in acquiring and enhancing the capacity of national ozone units to allow Article 5 Parties to comply with their commitments to ODS phase-out,

Recognizing the heavy workload and future challenges that Article 5 Parties still have to face looking towards the consolidation of CFC, halon and carbon tetrachloride phase-out, the phase-out of methyl bromide and the accelerated HCFC phase-out,

Acknowledging that decision 57/36 of the Executive Committee of the Multilateral Fund limits fund requests for the renewal of institutional strengthening projects up to the end of December 2010 at current levels,

Recognizing that such a decision could have an impact on Article 5 Parties' capacity to handle the complexity involved in ozone-depleting substance phase-out,

1. To urge the Executive Committee to extend financial support for institutional strengthening funding for Article 5 Parties beyond 2010;
2. To urge the Executive Committee to finalize its consideration of funding of institutional strengthening projects as expeditiously as possible, taking into account current and emerging challenges;
3. To recommend that the Executive Committee does not require that institutional strengthening funding be incorporated within funding for HCFC phase-out management plans only, but allows flexibility for an Article 5 party to do so if it so chooses.

XXI/30: Twenty-Second Meeting of the Parties to the Montreal Protocol

To convene the Twenty-Second Meeting of the Parties to the Montreal Protocol at the seat of the Secretariat, in Nairobi, during October 2010, unless other appropriate arrangements are made by the Secretariat in consultation with the Bureau;

XXI/31: Co-Chairs of the Open-ended Working Group of the Parties to the Montreal Protocol

To endorse the selection of Mr. Martin Sirois (Canada) and Mr. Fresnel Araujo (Bolivarian Republic of Venezuela) as Co-Chairs of the Open-ended Working Group of the Parties to the Montreal Protocol in 2010;

Decision XXI/32: Financial matters: Financial reports and budgets

Recalling decision XX/20 on financial matters,

Noting the financial report on the Trust Fund for the Montreal Protocol on Substances that Deplete the Ozone Layer for the biennium 2008-2009 ended 31 December 2008;

Recognizing that voluntary contributions are an essential complement for the effective implementation of the Montreal Protocol;

Welcoming the continued efficient management demonstrated by the Secretariat of the finances of the Montreal Protocol Trust Fund;

1. To approve the revised 2009 budget in the amount of \$5,329,104, and the 2010 budget in the amount of \$5,400,398 and to take note of the proposed budget of \$4,935,639 for 2011, as set out in annex I to the report of the Twenty-First meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer;

2. To authorize the Secretariat to draw down \$1,123,465 in 2010 and note the proposed drawdown of \$658,706 in 2011;
3. To approve, as a consequence of the draw-downs referred to in paragraph 2 above, total contributions to be paid by the Parties of \$4,276,933 for 2010 and note the contributions of \$4,276,933 for 2011, as set out in annex II to the report of the Twenty-First Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer;
4. Also to approve that the contributions of individual Parties for 2010 shall be listed in annex II to the report of the Twenty-first Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer;
5. To authorize the Secretariat to maintain the operating cash reserve at 15 per cent of the 2010 budget to be used to meet the final expenditures under the Trust Fund;
6. To urge all Parties to pay their outstanding contributions as well as their future contributions promptly and in full;
7. To request the Ozone Secretariat, in cases where the Open-ended Working Group and the Multilateral Fund Executive Committee meetings are held back to back, to consult with the Multilateral Fund Secretariat, with a view to selecting the meeting location which is the most cost effective, taking into account the budgets of both secretariats.

XI. Adoption of the report of the Twenty-First Meeting of the Parties

215. The present report was adopted on Sunday, 8 November 2009, on the basis of the draft report submitted to the Parties.

XII. Closure of the meeting

216. Following the customary exchange of courtesies, the President declared the meeting closed at 9.05 p.m. on Sunday, 8 November 2009.

Annex I

Revised approved 2009, approved 2010 and proposed 2011 budgets

			w/m	2009 (US\$)	w/m	2010 (US\$)	w/m	2011 (US\$)	
10	PROJECT PERSONNEL COMPONENT								
1100	Project personnel								
	1101	Executive Secretary (D-2) (shared with the Vienna Convention, VC)	6	157,164	6	161,900	6	166,757	
	1102	Deputy Executive Secretary (D-1)	12	240,000	12	252,000	12	259,560	
	1103	Senior Legal Officer (P-5)	12	191,000	12	196,730	12	202,632	
	1104	Senior Scientific Affairs Officer (P-5) (shared with VC)	6	124,426	6	128,159	6	132,004	
	1105	Administrative Officer (P-5) (paid by UNEP)	12	0	12	0	12	0	
	1106	Database Manager (Information System & Technology - P4)	12	142,050	12	145,743	12	150,115	
	1107	Programme Officer (Communication & Information - P3) (paid from VC)	12	0	12		12		
	1108	Programme Officer (Monitoring and Compliance - P4)	12	180,000	12	185,400	12	190,962	
	1199	Sub-total		1,034,640		1,069,932		1,102,030	
	1200	Consultants							
	1201	Assistance in data-reporting, analysis and promotion of the implementation of the Protocol		40,000		40,000		40,000	
	1299	Sub-total		40,000		40,000		40,000	
	1300	Administrative Support							
	1301	Administrative Assistant (G-7) (shared with VC)	6	21,250	6	21,250	6	21,250	
	1302	Personal Assistant (G-6)	12	26,625	12	26,625	12	26,625	
	1303	Programme Assistant (G-6) (paid from VC)	12	0	12	0	12	0	
	1304	Programme Assistant (G-6) (shared with VC)	6	17,573	6	17,573	6	17,573	
	1305	Information Assistant (G-6) (shared with VC)	6	16,295	6	16,295	6	16,295	
	1306	Documentation Clerk (G-6)	12	25,560	12	27,560	12	27,560	
	1307	Data Assistant (Computer Information Systems Assistant) (G-7)	12	42,174	12	42,174	12	42,174	
	1308	Programme Assistant – Fund (G-7) (paid by UNEP)	12	0	12	0	12	0	
	1309	Logistics Assistant (G-4) (paid by UNEP)	12	0	12	0	12	0	
	1310	Bilingual Senior Secretary (G-6) (paid from VC)	12	0	12	0	12	0	
	1320	Temporary Assistance	12	21,300	12	21,300	12	21,300	
	1321	Open-ended Working Group Meetings ¹		539,455		873,704		487,915	
	1322	Preparatory and Parties Meetings (shared with VC every three years, applies to the twenty-third Meeting of the Parties to the Montreal Protocol and Ninth Conference of the Parties to the Vienna Convention in 2011)		577,755		500,000		350,000	
	1323	Assessment Panel Meetings		100,000		100,000		100,000	
	1324	Bureau Meeting		20,000		20,000		20,000	
	1325	Implementation Committee Meetings		111,200		111,200		111,200	
	1326	MP informal consultation meetings		10,000		10,000		10,000	
	1399	Sub-total		1,529,187		1,787,681		1,251,892	

	1600	Travel on Official Business			
	1601	Staff travel on official business	210,000	210,000	210,000
	1602	Conference Services staff travel on official business	15,000	15,000	15,000
	1699	Sub-total	225,000	225,000	225,000
1999		COMPONENT TOTAL	2,828,827	3,122,613	2,618,922
30		MEETING/PARTICIPATION COMPONENT			
	3300	Support for Participation			
	3301	Assessment Panel Meetings ²	500,000	500,000	500,000
	3302	Preparatory and Parties Meetings (Montreal Protocol bears the cost of the participation of MP & VC delegates from A5 countries at the joint 23rd MOP and 9th COP in 2011)	387,000	350,000	450,000
	3303	Open-ended Working Group Meetings	337,000	300,000	300,000
	3304	Bureau Meeting	20,000	20,000	20,000
	3305	Implementation Committee Meetings	125,000	125,000	125,000
	3306	Consultations in an informal meeting	10,000	10,000	10,000
	3399	Sub-total	1,379,000	1,305,000	1,405,000
3999		COMPONENT TOTAL	1,379,000	1,305,000	1,405,000
40		EQUIPMENT AND PREMISES COMPONENT			
	4100	Expendable Equipment (items under \$1,500)			
	4101	Miscellaneous expendables (shared with VC)	22,000	22,000	22,000
	4199	Sub-total	22,000	22,000	22,000
	4200	Non-Expendable Equipment			
	4201	Personal computers and accessories	10,000	10,000	10,000
	4202	Portable computers	5,000	5,000	5,000
	4203	Other office equipment (server, fax, scanner, furniture etc.)	10,000	30,000	20,000
	4204	Photocopiers	10,000	10,000	10,000
	4299	Sub-total	35,000	55,000	45,000
	4300	Premises			
	4301	Rental of office premises (shared with VC)	42,000	48,000	50,400
	4399	Sub-total	42,000	48,000	50,400
4999		COMPONENT TOTAL	99,000	125,000	117,400
50		MISCELLANEOUS COMPONENT			
	5100	Operation and Maintenance of Equipment			
	5101	Maintenance of equipment and others (shared with VC)	25,000	25,000	25,000
	5199	Sub-total	25,000	25,000	25,000
	5200	Reporting Costs			
	5201	Reporting	55,000	55,000	55,000
	5202	Reporting (Assessment Panels)	15,000	15,000	15,000
	5203	Reporting (Protocol Awareness)	5,000	5,000	5,000
	5299	Sub-total	75,000	75,000	75,000
	5300	Sundry			
	5301	Communications	46,000	46,000	46,000
	5302	Freight charges	30,000	40,000	40,000
	5303	Training	7,000	10,500	10,500
	5304	Others (International Ozone Day)	10,000	10,000	10,000
	5399	Sub-total	93,000	106,500	106,500
	5400	Hospitality			
	5401	Hospitality	20,000	20,000	20,000
	5499	Sub-total	20,000	20,000	20,000

5999	COMPONENT TOTAL	213,000	226,500	226,500
99	TOTAL DIRECT PROJECT COST	4,519,827	4,779,113	4,367,822
	<i>Programme support costs (13%)</i>	587,577	621,285	567,817
	GRAND TOTAL (inclusive of programme support costs)	5,107,404	5,400,398	4,935,639
	Operating cash reserve exclusive of PSC	221,700	0	0
	TOTAL BUDGET	5,329,104	5,400,398	4,935,639
	Draw down ³	1,052,171	1,123,465	658,706
	Contribution from the Parties	4,276,933	4,276,933	4,276,933

1 An amount up to \$400,000 has been added to the budget line to accommodate the cost of activities under discussion by MOP 21 and these funds are not available to reprogramme to other activities.

2 Budgetline covers participation of all TEAP experts to enable the timely completion of the work requested by the Parties.

3 Draw down levels have been set with a view toward maintaining the level of contributions constant through 2011.

Explanatory notes for the revised approved 2009, approved 2010 and proposed 2011 budgets of the Trust Fund for the Montreal Protocol on Substances that Deplete the Ozone Layer

Budget line	<i>Comment</i>
Personnel component 1101–1108	<p>Indicative professional salary costs applicable to the Nairobi duty station for 2010–2011 have been used for the budget proposals. Where information on actual staff costs is available, however, the figures have been adjusted accordingly. Unspent commitments normally revert to the Trust Fund for the Montreal Protocol.</p> <p>An adjustment has been made to budget lines 1101 to 1108 to cover mandatory changes in salaries and emoluments of staff in the Professional category and above.</p>
1105	The post of the Administrative Officer continues to be paid by UNEP from the 13 per cent programme support costs.
Consultants – 1201	Assistance in data reporting, updating of publications and translation of essential features of the Ozone Secretariat website, as well as in the maintenance of a fully interlinked digital system at the Secretariat, will continue to be required. Funds under this line may be transferred to line 1100 to create or support short-term Professional posts if necessary.
Administrative support/personnel 1306, 1308 and 1309	<p>Standard General Service salary costs applicable to the Nairobi duty station for 2008 have been used for the 2010 – 2011 budget proposals.</p> <p>The Secretariat requested the upgrade of three administrative support / personnel posts (General Service category). The upgrades are vital to ensuring that grades are commensurate with evolving responsibilities and maintaining a highly effective, highly motivated workforce in the crucial years ahead.</p>
1306	The post of Documentation Clerk (1306) has been proposed for upgrading from G4 to G6 because of the revision of duties. The incumbent of this post covers documentation as well as information technology work in view of the increasing need of the Secretariat to deliver technology driven services. The financial implication of this upgrade is minimal and budgetary increase will be in the region of two thousand dollars a year starting from 2010.
1308 & 1309	The post of Programme Assistant – Fund (post 1308) has been proposed for upgrading from G6 to G7 and the Logistics Assistant (post 1309) from G3 to G4. The level of these posts was decided at the 10 th Meeting of the Parties in 1998. Since then, the responsibilities have grown immensely due in part to the increased number of Parties being served by the Secretariat, from 168 in 1998 to 195 in 2009, and also due to increased administrative workload brought about by changing technologies. These 2 upgrades will not have financial implications for the Parties as they are funded by UNEP against the 13 per cent programme support costs.
1310	The post of bilingual secretary is funded from the Vienna Convention Trust Fund.
1320	The Secretariat continues to require funding for general temporary assistance, particularly in the area of documents preparation for meetings, regular website development and maintenance, archiving and arrangements for participants' attendance at meetings.

Budget line	<i>Comment</i>
Administrative support/conference services – 1321–1326	<p>Necessary funds may be transferred from the conference servicing budget lines (1321–1326) should such services be required to be rendered, either by individual consultancies or under corporate contracts.</p> <p>The current conference servicing costs have been based on the following reasons and assumptions:</p> <p>1321: The budget proposed is for one meeting of the Open-ended Working Group to be held each year in 2010 and 2011 in Nairobi or at another United Nations venue, in the six official United Nations languages.</p> <p>1322: The budget for 2011 is lower than in 2009 and 2010 as the cost of the Twenty-third Meeting of the Parties to the Montreal Protocol in 2011 will be shared with the ninth meeting of the Conference of the Parties to the Vienna Convention.</p> <p>It is assumed that the Meeting of the Parties and its preparatory meeting will be held in Nairobi in 2010 and 2011, in the six official United Nations languages. When meetings are not held in Nairobi, the additional costs that that entails will be borne by the Government hosting the meetings.</p> <p>1323: The budget allocation in 2010 and 2011 will cover the costs of organizing annual meetings of the assessment panels and the Technology and Economic Assessment Panel’s technical options committees, together with communication and other sundry costs related to the work of Panel members from developing countries and countries with economies in transition.</p> <p>1324: One Bureau meeting is scheduled for each of the years 2010 and 2011, with provision for interpretation and document translation into the appropriate languages based on the membership of the Bureau.</p> <p>1325: At least two Implementation Committee meetings of three days’ duration are scheduled for each of the years 2010 and 2011 with interpretation and document translation as required, to be held back-to-back with the Open-ended Working Group meetings and the Meetings of the Parties in those years.</p> <p>1326: At least one informal consultation meeting per year, expected to take place in Nairobi, is envisaged for 2010 and 2011 to facilitate the work of assisting the Parties and also in promoting ratification of and compliance with the Montreal Protocol and its amendments.</p>
Travel on official business – 1601–1602	Travel on official business for 2010 and 2011 is being maintained at the 2009 level.
Meetings/Participation component – 3300	<p>Participation of representatives of developing countries</p> <p>The participation of representatives of Parties operating under paragraph 1 of Article 5 in the various Protocol meetings is assumed at \$5,000 per meeting per representative, taking into account not more than one person’s travel costs per country, using the most appropriate and advantageous economy-class fare and United Nations daily subsistence allowances.</p>
3301	<p>The budget provision requested in 2010 and 2011 for members and experts of the assessment panels and the technical options committees attending assessment panel meetings is being maintained at 2009 levels.</p> <p>The Secretariat should continue to use this budget line to ensure funding of the participation of all essential TEAP experts from Article 5 parties needed to enable the timely completion of the work requested by the Parties. If, once those needs are met and any funds remain, the Secretariat is authorized to use such funds flexibly, and in such ways as it may deem necessary to enable the timely completion of the work requested by the Parties. Upon request of the Parties, the Secretariat will provide a breakdown of how the flexibility was utilized.</p>

Budget line	<i>Comment</i>
3302	In 2011, the total participation costs, based on some 80 participants attending the combined ninth meeting of the Conference of the Parties to the Vienna Convention and the Twenty-third Meeting of the Parties to the Montreal Protocol, is borne fully by the Trust Fund for the Montreal Protocol. In 2010, the budget allocation is the same as 2009 levels.
3303	Participation costs are based on some 60 participants attending the Open-ended Working Group meetings in both 2010 and 2011.
3304	Participation costs are based on one Bureau meeting a year for four Bureau members from developing countries or countries with economies in transition at each meeting.
3305	The participation costs for the two Implementation Committee meetings per year are based on eight members from developing countries and countries with economies in transition at each meeting and one representative each from three or four countries invited by the Implementation Committee at each meeting. Provision has also been made for travel by the Implementation Committee President or Vice-President from a country operating under paragraph 1 of Article 5 to attend three Executive Committee meetings a year.
3306	Funds have been allocated to finance the participation of two participants from developing countries and countries with economies in transition as part of informal consultations in 2010 and 2011 on critical issues relating to the Montreal Protocol, which, it is expected, will be held in Nairobi.
Equipment and premises component	
Expendable equipment – 4101	The cost of miscellaneous expendables is being increased minimally in 2010 and 2011 to take into account inflation. Resource use is being monitored constantly to maintain low expenditure levels.
Non-expendable equipment – 4203	Additional funds for 2010 and 2011 have been allocated to provide for increased server capacity to cope with the demands of paperless meetings, and to enable the Secretariat to replace equipment as and when required.
Premises (rent) – 4300	The allocation for rental of premises in 2010 and 2011 has been based on the increase advised by the United Nations Controller for rental rates in Nairobi.
Miscellaneous component	
Operation and maintenance of equipment – 5101	The provision for operation and maintenance of equipment is being increased minimally in 2010 and 2011 to cover increased maintenance costs for constantly increasing server capacity and additional computing requirements for staff.
Reporting costs (including editing, translation, duplication, publication and printing) – 5201–5203	General reporting costs for the Secretariat are provided for under these lines. Line 5202 is reserved for reporting of assessment panels. A small amount is allocated in line 5203 for any editing, translation, duplication, publication and printing related to Protocol awareness campaigns.
Sundry – Communications – 5301	Careful monitoring of telecommunications resources and the use of electronic mail instead of facsimile communications enable the Secretariat to maintain a relatively low budget provision under this line.
Freight and post – 5302	This line has been reduced by \$10,000 in 2008 to signal the Secretariat's and the Parties' commitment to the use of electronic mail for disseminating correspondence and meeting documentation. In the revision proposed for 2009, this budgetline is being reduced by half from \$60,000 to \$30,000 as more Parties have opted to receive communications and meeting documentation by electronic mail. However, while the cost of posting and shipping of correspondence and meeting documentation has been reduced in keeping with maximizing the benefits of global electronic communication media, some provision has to be set aside for shipment of necessary equipment related to paperless meetings.

Budget line	<i>Comment</i>
Training – 5303	The provision for training will be maintained to meet evolving training needs and to cater for training schemes introduced by the United Nations as a result of the continuing human resources reform programme.
Others (International Ozone Day) – 5304	The Ozone Secretariat will continue to provide assistance to specific countries during 2010 and 2011 to assist in their preparations for the celebration of the International Day for the Preservation of the Ozone Layer.

Annex II

Trust Fund for the Montreal Protocol on the Substances that Deplete the Ozone Layer

Scale of contributions by the Parties for 2010 and 2011 based on the United Nations scale of assessments

(General Assembly resolution A/RES/61/237 of 13 February 2007, with a maximum assessment rate of 22 per cent)
(in United States dollars)

	NAME OF PARTY	UN scale of assesment for years 2007-2009	Adjusted UN scale to exclude non-contributors	Adjusted UN scale with 22% maximum assessment rate considered	2010 CONTRIBUTIONS BY PARTIES	INDICATIVE 2011 CONTRIBUTIONS BY PARTIES
1	Afghanistan	0.001	0.000	0.000	0	0
2	Albania	0.006	0.000	0.000	0	0
3	Algeria	0.085	0.000	0.000	0	0
4	Andorra	0.008	0.000	0.000	0	0
5	Angola	0.003	0.000	0.000	0	0
6	Antigua and Barbuda	0.002	0.000	0.000	0	0
7	Argentina	0.325	0.325	0.324	13,853	13,853
8	Armenia	0.002	0.000	0.000	0	0
9	Australia	1.787	1.787	1.781	76,171	76,171
10	Austria	0.887	0.887	0.884	37,808	37,808
11	Azerbaijan	0.005	0.000	0.000	0	0
12	Bahamas	0.016	0.000	0.000	0	0
13	Bahrain	0.033	0.000	0.000	0	0
14	Bangladesh	0.010	0.000	0.000	0	0
15	Barbados	0.009	0.000	0.000	0	0
16	Belarus	0.020	0.000	0.000	0	0
17	Belgium	1.102	1.102	1.098	46,973	46,973
18	Belize	0.001	0.000	0.000	0	0
19	Benin	0.001	0.000	0.000	0	0
20	Bhutan	0.001	0.000	0.000	0	0
21	Bolivia	0.006	0.000	0.000	0	0
22	Bosnia and Herzegovina	0.006	0.000	0.000	0	0
23	Botswana	0.014	0.000	0.000	0	0
24	Brazil	0.876	0.876	0.873	37,339	37,339

	NAME OF PARTY	UN scale of assesment for years 2007-2009	Adjusted UN scale to exclude non-contributors	Adjusted UN scale with 22% maximum assesment rate considered	2010 CONTRIBUTIONS BY PARTIES	INDICATIVE 2011 CONTRIBUTIONS BY PARTIES
25	Brunei Darussalam	0.026	0.000	0.000	0	0
26	Bulgaria	0.020	0.000	0.000	0	0
27	Burkina Faso	0.002	0.000	0.000	0	0
28	Burundi	0.001	0.000	0.000	0	0
29	Cambodia	0.001	0.000	0.000	0	0
30	Cameroon	0.009	0.000	0.000	0	0
31	Canada	2.977	2.977	2.967	126,894	126,894
32	Cape Verde	0.001	0.000	0.000	0	0
33	Central African Republic	0.001	0.000	0.000	0	0
34	Chad	0.001	0.000	0.000	0	0
35	Chile	0.161	0.161	0.160	6,863	6,863
36	China	2.667	2.667	2.658	113,680	113,680
37	Colombia	0.105	0.105	0.105	4,476	4,476
38	Comoros	0.001	0.000	0.000	0	0
39	Congo	0.001	0.000	0.000	0	0
40	Cook Islands	-	0.000	0.000	0	0
41	Costa Rica	0.032	0.000	0.000	0	0
42	Cote d' Ivoire	0.009	0.000	0.000	0	0
43	Croatia	0.050	0.000	0.000	0	0
44	Cuba	0.054	0.000	0.000	0	0
45	Cyprus	0.044	0.000	0.000	0	0
46	Czech Republic	0.281	0.281	0.280	11,978	11,978
47	Democratic People's Republic of Korea	0.007	0.000	0.000	0	0
48	Democratic Republic of Congo	0.003	0.000	0.000	0	0
49	Denmark	0.739	0.739	0.737	31,500	31,500
50	Djibouti	0.001	0.000	0.000	0	0
51	Dominica	0.001	0.000	0.000	0	0
52	Dominican Republic	0.024	0.000	0.000	0	0
53	Ecuador	0.021	0.000	0.000	0	0
54	Egypt	0.088	0.000	0.000	0	0
55	El Salvador	0.020	0.000	0.000	0	0

	NAME OF PARTY	UN scale of assesment for years 2007-2009	Adjusted UN scale to exclude non-contributors	Adjusted UN scale with 22% maximum assessment rate considered	2010 CONTRIBUTIONS BY PARTIES	INDICATIVE 2011 CONTRIBUTIONS BY PARTIES
56	Equatorial Guinea	0.002	0.000	0.000	0	0
57	Eritrea	0.001	0.000	0.000	0	0
58	Estonia	0.016	0.000	0.000	0	0
59	Ethiopia	0.003	0.000	0.000	0	0
60	European Community	2.500	2.500	2.492	106,562	106,562
61	Fiji	0.003	0.000	0.000	0	0
62	Finland	0.564	0.564	0.562	24,040	24,040
63	France	6.301	6.301	6.280	268,579	268,579
64	Gabon	0.008	0.000	0.000	0	0
65	Gambia	0.001	0.000	0.000	0	0
66	Georgia	0.003	0.000	0.000	0	0
67	Germany	8.577	8.577	8.548	365,593	365,593
68	Ghana	0.004	0.000	0.000	0	0
69	Greece	0.596	0.596	0.594	25,404	25,404
70	Grenada	0.001	0.000	0.000	0	0
71	Guatemala	0.032	0.000	0.000	0	0
72	Guinea	0.001	0.000	0.000	0	0
73	Guinea-Bissau	0.001	0.000	0.000	0	0
74	Guyana	0.001	0.000	0.000	0	0
75	Haiti	0.002	0.000	0.000	0	0
76	Holy See	0.001	0.000	0.000	0	0
77	Honduras	0.005	0.000	0.000	0	0
78	Hungary	0.244	0.244	0.243	10,400	10,400
79	Iceland	0.037	0.000	0.000	0	0
80	India	0.450	0.450	0.448	19,181	19,181
81	Indonesia	0.161	0.161	0.160	6,863	6,863
82	Iran (Islamic Republic of)	0.180	0.180	0.179	7,672	7,672
83	Iraq	0.015	0.000	0.000	0	0
84	Ireland	0.445	0.445	0.443	18,968	18,968
85	Israel	0.419	0.419	0.418	17,860	17,860
86	Italy	5.079	5.079	5.062	216,492	216,492

	NAME OF PARTY	UN scale of assesment for years 2007-2009	Adjusted UN scale to exclude non-contributors	Adjusted UN scale with 22% maximum assessment rate considered	2010 CONTRIBUTIONS BY PARTIES	INDICATIVE 2011 CONTRIBUTIONS BY PARTIES
87	Jamaica	0.010	0.000	0.000	0	0
88	Japan	16.624	16.624	16.568	708,595	708,595
89	Jordan	0.012	0.000	0.000	0	0
90	Kazakhstan	0.029	0.000	0.000	0	0
91	Kenya	0.010	0.000	0.000	0	0
92	Kiribati	0.001	0.000	0.000	0	0
93	Kuwait	0.182	0.182	0.181	7,758	7,758
94	Kyrgyzstan	0.001	0.000	0.000	0	0
95	Lao People's Democratic Republic	0.001	0.000	0.000	0	0
96	Latvia	0.018	0.000	0.000	0	0
97	Lebanon	0.034	0.000	0.000	0	0
98	Lesotho	0.001	0.000	0.000	0	0
99	Liberia	0.001	0.000	0.000	0	0
100	Libyan Arab Jamahiriya	0.062	0.000	0.000	0	0
101	Liechtenstein	0.010	0.000	0.000	0	0
102	Lithuania	0.031	0.000	0.000	0	0
103	Luxembourg	0.085	0.000	0.000	0	0
104	Madagascar	0.002	0.000	0.000	0	0
105	Malawi	0.001	0.000	0.000	0	0
106	Malaysia	0.190	0.190	0.189	8,099	8,099
107	Maldives	0.001	0.000	0.000	0	0
108	Mali	0.001	0.000	0.000	0	0
109	Malta	0.017	0.000	0.000	0	0
110	Marshall Islands	0.001	0.000	0.000	0	0
111	Mauritania	0.001	0.000	0.000	0	0
112	Mauritius	0.011	0.000	0.000	0	0
113	Mexico	2.257	2.257	2.249	96,204	96,204
114	Micronesia (Federated State of)	0.001	0.000	0.000	0	0
115	Monaco	0.003	0.000	0.000	0	0
116	Mongolia	0.001	0.000	0.000	0	0
117	Montenegro	0.001	0.000	0.000	0	0

	NAME OF PARTY	UN scale of assesment for years 2007-2009	Adjusted UN scale to exclude non-contributors	Adjusted UN scale with 22% maximum assesment rate considered	2010 CONTRIBUTIONS BY PARTIES	INDICATIVE 2011 CONTRIBUTIONS BY PARTIES
118	Morocco	0.042	0.000	0.000	0	0
119	Mozambique	0.001	0.000	0.000	0	0
120	Myanmar	0.005	0.000	0.000	0	0
121	Namibia	0.006	0.000	0.000	0	0
122	Nauru	0.001	0.000	0.000	0	0
123	Nepal	0.003	0.000	0.000	0	0
124	Netherlands	1.873	1.873	1.867	79,836	79,836
125	New Zealand	0.256	0.256	0.255	10,912	10,912
126	Nicaragua	0.002	0.000	0.000	0	0
127	Niger	0.001	0.000	0.000	0	0
128	Nigeria	0.048	0.000	0.000	0	0
129	Niue	-	0.000	0.000	0	0
130	Norway	0.782	0.782	0.779	33,333	33,333
131	Oman	0.073	0.000	0.000	0	0
132	Pakistan	0.059	0.000	0.000	0	0
133	Palau	0.001	0.000	0.000	0	0
134	Panama	0.023	0.000	0.000	0	0
135	Papua New Guinea	0.002	0.000	0.000	0	0
136	Paraguay	0.005	0.000	0.000	0	0
137	Peru	0.078	0.000	0.000	0	0
138	Philippines	0.078	0.000	0.000	0	0
139	Poland	0.501	0.501	0.499	21,355	21,355
140	Portugal	0.527	0.527	0.525	22,463	22,463
141	Qatar	0.085	0.000	0.000	0	0
142	Republic of Korea	2.173	2.173	2.166	92,624	92,624
143	Republic of Moldova	0.001	0.000	0.000	0	0
144	Romania	0.070	0.000	0.000	0	0
145	Russian Federation	1.200	1.200	1.196	51,150	51,150
146	Rwanda	0.001	0.000	0.000	0	0
147	Saint Kitts and Nevis	0.001	0.000	0.000	0	0
148	Saint Lucia	0.001	0.000	0.000	0	0

	NAME OF PARTY	UN scale of assesment for years 2007-2009	Adjusted UN scale to exclude non-contributors	Adjusted UN scale with 22% maximum assessment rate considered	2010 CONTRIBUTIONS BY PARTIES	INDICATIVE 2011 CONTRIBUTIONS BY PARTIES
149	Saint Vincent and the Grenadines	0.001	0.000	0.000	0	0
150	Samoa	0.001	0.000	0.000	0	0
151	San Marino	0.003	0.000	0.000	0	0
152	Sao Tome and Principe	0.001	0.000	0.000	0	0
153	Saudi Arabia	0.748	0.748	0.745	31,883	31,883
154	Senegal	0.004	0.000	0.000	0	0
155	Serbia	0.021	0.000	0.000	0	0
156	Seychelles	0.002	0.000	0.000	0	0
157	Sierra Leone	0.001	0.000	0.000	0	0
158	Singapore	0.347	0.347	0.346	14,791	14,791
159	Slovakia	0.063	0.000	0.000	0	0
160	Slovenia	0.096	0.000	0.000	0	0
161	Solomon Islands	0.001	0.000	0.000	0	0
162	Somalia	0.001	0.000	0.000	0	0
163	South Africa	0.290	0.290	0.289	12,361	12,361
164	Spain	2.968	2.968	2.958	126,511	126,511
165	Sri Lanka	0.016	0.000	0.000	0	0
166	Sudan	0.010	0.000	0.000	0	0
167	Suriname	0.001	0.000	0.000	0	0
168	Swaziland	0.002	0.000	0.000	0	0
169	Sweden	1.071	1.071	1.067	45,651	45,651
170	Switzerland	1.216	1.216	1.212	51,832	51,832
171	Syrian Arab Republic	0.016	0.000	0.000	0	0
172	Tajikistan	0.001	0.000	0.000	0	0
173	Thailand	0.186	0.186	0.185	7,928	7,928
174	The former Yugoslav Republic of Macedonia	0.005	0.000	0.000	0	0
175	Timor-Leste					
176	Togo	0.001	0.000	0.000	0	0
177	Tonga	0.001	0.000	0.000	0	0
178	Trinidad and Tobago	0.027	0.000	0.000	0	0
179	Tunisia	0.031	0.000	0.000	0	0

	NAME OF PARTY	UN scale of assesment for years 2007-2009	Adjusted UN scale to exclude non-contributors	Adjusted UN scale with 22% maximum assesment rate considered	2010 CONTRIBUTIONS BY PARTIES	INDICATIVE 2011 CONTRIBUTIONS BY PARTIES
180	Turkey	0.381	0.381	0.380	16,240	16,240
181	Turkmenistan	0.006	0.000	0.000	0	0
182	Tuvalu	0.001	0.000	0.000	0	0
183	Uganda	0.003	0.000	0.000	0	0
184	Ukraine	0.045	0.000	0.000	0	0
185	United Arab Emirates	0.302	0.302	0.301	12,873	12,873
186	United Kingdom	6.642	6.642	6.620	283,114	283,114
187	United Republic of Tanzania	0.006	0.000	0.000	0	0
188	United States of America	22.000	22.000	21.926	937,746	937,746
189	Uruguay	0.027	0.000	0.000	0	0
190	Uzbekistan	0.008	0.000	0.000	0	0
191	Vanuatu	0.001	0.000	0.000	0	0
192	Venezuela (Bolivarian Republic of)	0.200	0.200	0.199	8,525	8,525
193	Vietnam	0.024	0.000	0.000	0	0
194	Yemen	0.007	0.000	0.000	0	0
195	Zambia	0.001	0.000	0.000	0	0
196	Zimbabwe	0.008	0.000	0.000	0	0
	Total	102.500	100.339	100.000	4,276,933	4,276,933

Annex III

Declaration on High-GWP alternatives to ODSs

By: Angola, Cameroon, Canada, Chad, Comoros, Congo, Dominican Republic, Egypt, Fiji, Gabon, Grenada, Guinea Bissau, Indonesia, Japan, Kiribati, Madagascar, Marshall Islands, Mali, Mauritania, Mauritius, Mexico, Micronesia, Morocco, Namibia, New Zealand, Nigeria, Papua New Guinea, Palau, Saint Lucia, Solomon Islands, Somalia, Sudan, Switzerland, Timor-Leste, Togo, Tonga, Tunisia, United States, Zambia.

Aware of the wide agreement among scientists that climate change will threaten present and future generations unless more stringent measures are adopted and implemented urgently,

Concerned that climate change is occurring faster than previously predicted,

Mindful that certain high-GWP alternatives to ODSs used to replace certain ozone depleting substances are powerful greenhouse gases and are contributing to climate change,

Emphasize the fact that the substitution of hydrochlorofluorocarbons (HCFCs) need not necessarily rely on the use of high-GWP alternatives;

Also aware that more environmentally sound alternative substances and technologies already exist or are rapidly being developed and that in various sectors a transition away from high-GWP alternatives to ODSs can already be achieved,

Also aware that the Montreal Protocol is well-suited to phase-down high-GWP alternatives to ODSs, having already phased-out similar chemicals in the same sectors that now utilize high-GWP alternatives to ODSs,

Stress the need to review the possibility of appropriately amending the Montreal Protocol to include a progressive reduction of the production and consumption of select high-GWP alternatives to ODSs as controlled substances, and to ensure appropriate coordination with the UNFCCC and Kyoto Protocol, including adequate reporting,

Recognizing that certain high-GWP alternatives to ODSs are within the basket of greenhouse gases controlled by the Kyoto Protocol and amendments to the Montreal Protocol should be agreed to in a manner that neither excludes controlled high-GWP substances from the scope of the UNFCCC or Kyoto Protocol, nor affect existing commitments undertaken by Parties thereto,

Encourage all states to urgently consider phasing-down the production and consumption of high-GWP alternatives to ODSs where alternatives exist,

Agree to commit to encourage and facilitate the accelerated development of climate friendly substituting chemicals, products, and technologies for all applications of HCFCs,

Agree to facilitate the access to relevant scientific information, research results, training, and the transfer of technology and its implementation to all Article 5 Parties,

Agree to take appropriate measures to limit the use of high-GWP alternatives to ODSs as soon as practicable.

Port Ghalib, Egypt, 8 November 2009