

**SUMMARY OF THE TWENTIETH MEETING OF THE PARTIES TO THE MONTREAL PROTOCOL AND EIGHTH MEETING OF THE CONFERENCE OF THE PARTIES TO THE VIENNA CONVENTION:
16-20 NOVEMBER 2008**

The eighth Conference of the Parties to the Vienna Convention for the Protection of the Ozone Layer and the twentieth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (COP-8/MOP-20) took place in Doha, Qatar, from 16-20 November 2008. The joint meeting was attended by over 500 participants representing governments, UN agencies, intergovernmental and non-governmental organizations, academia, industry and the agricultural sector.

COP-8/MOP-20 opened with a preparatory segment from Sunday to Tuesday, 16-18 November, that addressed the COP/MOP's substantive agenda items and related draft decisions. This was followed by a high-level segment, which convened from Wednesday to Thursday, 19-20 November, and adopted the decisions forwarded to it by the preparatory segment. As the preparatory segment did not conclude its work on a number of contentious issues by Tuesday, it reconvened several times during the high-level segment to address outstanding issues, including replenishment of the Multilateral Fund, destruction of ozone depleting substances (ODS), and essential uses of metered dose inhalers.

COP-8/MOP-20 adopted a Doha Declaration and 29 decisions, including: replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol; ratification; compliance; methyl bromide; destruction of ODS; essential- and critical-use exemptions; process agents; and financial and administrative matters. Despite an extensive agenda, the hard work of delegates in plenary, contact groups and informal bilateral discussions, led to the resolution of all items, and enabled the meeting to conclude, as scheduled, on Thursday evening.

A BRIEF HISTORY OF THE OZONE REGIME

Concerns that the Earth's stratospheric ozone layer could be at risk from CFCs and other anthropogenic substances were first raised in the early 1970s. At that time, scientists warned that the release of these substances into the atmosphere could deplete the ozone layer, hindering its ability to prevent harmful ultraviolet rays from reaching the Earth. This would adversely affect ocean ecosystems, agricultural productivity and animal populations, and harm humans through higher rates of skin cancers, cataracts and weakened immune systems. In response to this growing concern, the United Nations Environment Programme (UNEP) convened a conference in March 1977 that adopted a World Plan of Action on the Ozone Layer and established a Coordinating Committee to guide future international action on ozone protection.

VIENNA CONVENTION: In May 1981, the UNEP Governing Council launched negotiations on an international agreement to protect the ozone layer and, in March 1985, the Vienna Convention for the Protection of the Ozone Layer was adopted. The Convention called for cooperation on monitoring, research and data exchange, but did not impose obligations to reduce the use of ODS. The Convention now has 193 parties.

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MONTREAL PROTOCOL: In September 1987, efforts to negotiate binding obligations to reduce the use of ODS led to the adoption of the Montreal Protocol on Substances that Deplete the Ozone Layer. The Protocol introduced control measures for some CFCs and halons for developed countries (non-Article 5 parties). Developing countries (Article 5 parties) were granted a grace period allowing them to increase their use of these ODS before taking on commitments. The Protocol currently has 193 parties.

Since 1987, several amendments and adjustments to the Protocol have been adopted, adding new obligations and additional ODS, and adjusting existing control schedules. Amendments require ratification by a defined number of parties before they enter into force, while adjustments enter into force automatically.

LONDON AMENDMENT AND ADJUSTMENTS:

Delegates to the second Meeting of the Parties (MOP-2), which took place in London, UK, in 1990, tightened control schedules and agreed to add ten more CFCs to the list of ODS, as well as carbon tetrachloride (CTC) and methyl chloroform. To date, 189 parties have ratified the London Amendment. MOP-2 also established the Multilateral Fund, which meets the incremental costs incurred by Article 5 parties in implementing the Protocol's control measures and finances clearinghouse functions, including technical assistance, information, training, and the costs of the Multilateral Fund Secretariat. The Fund is replenished every three years, and has received pledges of over US\$2 billion since its inception.

COPENHAGEN AMENDMENT AND ADJUSTMENTS:

At MOP-4, held in Copenhagen, Denmark, in 1992, delegates tightened existing control schedules and added controls on methyl bromide, hydrobromofluorocarbons and hydrochlorofluorocarbons (HCFCs). MOP-4 also agreed to enact non-compliance procedures and to establish an Implementation Committee. The Implementation Committee examines cases of possible non-compliance by parties, and makes recommendations to the MOP aimed at securing full compliance. To date, 184 parties have ratified the Copenhagen Amendment.

MONTREAL AMENDMENT AND ADJUSTMENTS: At MOP-9, held in Montreal, Canada, in 1997, delegates agreed to a new licensing system for the import and export of ODS, in addition to tightening existing control schedules. They also agreed to a ban on trade in methyl bromide with non-parties to the Copenhagen Amendment. To date, 167 parties have ratified the Montreal Amendment.

BEIJING AMENDMENT AND ADJUSTMENTS: At MOP-11, held in Beijing, China, in 1999, delegates agreed to controls on bromochloromethane and additional controls on HCFCs, and to reporting on methyl bromide for quarantine and pre-shipment (QPS) applications. At present, 144 parties have ratified the Beijing Amendment.

MOPs 14-15: At MOP-14, held in Rome, Italy, in 2002, the MOP's decisions covered such matters as compliance, interaction with the World Trade Organization, and replenishment of the Multilateral Fund with US\$474 million for 2003-2005. MOP-15, held in Nairobi, Kenya, in 2003, resulted in decisions on issues including the implications of the entry into force of the Beijing Amendment. However, disagreements surfaced over exemptions allowing the use of methyl bromide beyond 2004 for critical

uses where no technically or economically feasible alternatives are available. Delegates could not reach agreement and took the unprecedented step of calling for an "extraordinary" MOP.

FIRST EXTRAORDINARY MOP: The first Extraordinary Meeting of the Parties to the Montreal Protocol (ExMOP-1) took place in March 2004, in Montreal, Canada. Parties agreed to critical-use exemptions (CUEs) for methyl bromide for 2005 only. The introduction of a "double-cap" concept distinguishing between old and new production of methyl bromide was central to this compromise. Parties agreed to a cap for new production of 30% of parties' 1991 baseline levels, meaning that where the capped amount was insufficient for approved critical uses in 2005, parties were required to use existing stockpiles.

MOP-16: MOP-16 took place in Prague, Czech Republic, in November 2004. The parties adopted decisions on the Multilateral Fund, ratification, compliance, trade in ODS and other matters, but work on methyl bromide exemptions for 2006 was not completed. For the second time, parties decided to hold an extraordinary MOP.

SECOND EXTRAORDINARY MOP: ExMOP-2 was held in July 2005, in Montreal, Canada. Parties agreed to supplementary levels of CUEs for 2006 left unresolved at MOP-16. Under this decision, parties also agreed that: CUEs allocated domestically that exceed levels permitted by the MOP must be drawn from existing stocks; methyl bromide stocks must be reported; and parties must "endeavor" to allocate CUEs to the particular use categories specified in the decision.

COP-7/MOP-17: MOP-17 was held jointly with the seventh Conference of the Parties to the Vienna Convention in Dakar, Senegal, in December 2005. Parties approved essential-use exemptions for 2006 and 2007, supplemental CUEs for 2006 and CUEs for 2007, and production and consumption of methyl bromide in non-Article 5 parties for laboratory and analytical critical uses. Other decisions concerned, *inter alia*: submission of information on methyl bromide in space fumigation; replenishment of the Multilateral Fund with US\$470.4 million for 2006-2008; and the terms of reference for a feasibility study on developing a monitoring system for the transboundary movement of controlled ODS.

MOP-18: MOP-18 took place in New Delhi, India, from 30 October - 3 November 2006. Parties adopted decisions on: essential-use exemptions; future work following the Secretariat's workshop on the Special Report of the Intergovernmental Panel on Climate Change and the Technology and Economic Assessment Panel (TEAP); CUEs; difficulties faced by some Article 5 parties manufacturing CFC-based metered-dose inhalers (MDIs); treatment of stockpiled ODS relative to compliance; a feasibility study on developing a system for monitoring the transboundary movement of ODS; and key challenges to be faced by parties in protecting the ozone layer over the next decade. Parties deferred consideration, until the 27th meeting of the Open-ended Working Group (OEWG) of the Parties to the Montreal Protocol, of multi-year exemptions for CUEs and options for preventing harmful trade in methyl bromide stocks.

MOP-19: MOP-19 took place in Montreal, Canada, from 17-21 September 2007. Delegates adopted 29 decisions, including on: an accelerated phase-out of HCFCs; essential-use nominations and other issues arising out of the 2006 reports of

the TEAP; critical-use nominations for methyl bromide; and monitoring transboundary movements and illegal trade in ODS. A Montreal Declaration was also adopted, which acknowledges the historic global cooperation achieved during the last 20 years under the Montreal Protocol, and reaffirms parties' commitment to phase out consumption and production of ODS through a range of actions.

CURRENT ODS CONTROL SCHEDULES: Under the amendments to the Montreal Protocol, non-Article 5 parties were required to phase out production and consumption of: halons by 1994; CFCs, CTC, hydrobromochlorofluorocarbons and methyl chloroform by 1996; bromochloromethane by 2002; and methyl bromide by 2005. The phase-out of HCFC production and consumption by Article 2 countries is set for 2020 and 2030 for Article 5 parties (with interim targets prior to those dates). Production was to be stabilized by 2004 and is to be frozen in 2013. Article 5 parties were required to phase out production and consumption of bromochloromethane by 2002. These parties must still phase out: production and consumption of CFCs, halons and CTC by 2010, and methyl chloroform and methyl bromide by 2015. There are exemptions to these phase-outs to allow for certain uses lacking feasible alternatives or in particular circumstances.

COP-8/MOP-20 REPORT

PREPARATORY SEGMENT

On Sunday morning, 16 November 2008, the eighth Conference of the Parties to the Vienna Convention for the Protection of the Ozone Layer and the twentieth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (COP-8/MOP-20) preparatory segment was opened by preparatory segment Co-Chair Mikkel Sørensen (Denmark). Preparatory segment Co-Chair Judy Beaumont (South Africa) highlighted the importance of the Replenishment Task Force, the fixed-exchange-rate mechanism, environmentally-sound disposal of ozone depleting substances (ODS), the election of new officers for several committees, and the need for transparency.

MOP-19 President Abdullah bin Mubarak bin Aaboud al-Midhadi, Minister of Environment, Qatar, welcomed participants and announced that this was the first paper-free meeting of the Montreal Protocol and the UN system, and that his country had decided to donate all the computers used at this meeting to UNEP so it can continue to hold environmentally conscious, paper-free meetings.

Marco González, Executive Secretary of the Ozone Secretariat, thanked the Government of Qatar for helping pioneer the use of electronic documentation in the UN system. He also urged support for: parties that have yet to phase out chlorofluorocarbons (CFCs), halons and carbon tetrachloride (CTC) by 2010; a robust replenishment of Multilateral Fund; a decision on ODS destruction; and working to close the gap in satellite monitoring programmes.

Co-Chair Beaumont introduced the agenda for the preparatory segment (UNEP/OzL.Conv.8/1-UNEP/OzL.Pro.20/1), and delegates adopted it with the inclusion of proposals by Iraq, Nepal, Mexico and the US, as well as a Qatari proposal to develop a Doha Declaration. Parties also agreed to the organization of work.

Throughout COP-8/MOP-20, delegates discussed agenda items and corresponding draft decisions in plenary, contact groups and bilateral consultations. Rather than addressing agenda items in numerical order, issues likely to lead to the establishment of contact groups were addressed first, in an effort to ensure as little overlap between contact groups as possible. Draft decisions were approved by the preparatory segment and forwarded to the high-level segment for adoption on Thursday afternoon. The description of the negotiations, the summary of the decisions and other outcomes can be found below.

HIGH-LEVEL SEGMENT

On Wednesday morning, delegates attended the opening of the high-level segment. MOP-19 President Abdullah bin Mubarak bin Aaboud al-Midhadi, Minister of Environment, Qatar, highlighted activities undertaken in Qatar on ozone protection, including launching a stratospheric ozone monitoring station along with the US National Aeronautics and Space Administration (NASA), and a center for applied research for creating ozone alternatives in cooperation with United Nations Environment Programme (UNEP).

Djibo Leity Ka, Minister of Environment, Senegal, and President of the Bureau of the Vienna Convention, explained that the Bureau had undertaken major activities since its last meeting three years ago in Dakar, Senegal, including strengthening of ozone monitoring and research networks.

Congratulating the Government of Qatar on a groundbreaking meeting, Executive Secretary Marco González underscored the importance of the paperless initiative, and the need for its extension to the global environmental system, including at the UNEP Governing Council meeting in February 2009.

Abdullah bin Mubarak bin Aaboud al-Midhadi introduced nominations for officers, and delegates elected Róbert Tóth (Hungary) as MOP-20 President and Patali Ranawaka (Sri Lanka) as COP-8 President by acclamation. Delegates adopted the agenda of the COP-8/MOP-20 high-level segment (UNEP/OzL.Conv.8/1-UNEP/OzL.Pro.20/1) without amendment.

PRESENTATIONS BY THE ASSESSMENT PANELS: Delegates heard presentations from the assessment panels on Wednesday.

Scientific Assessment Panel: A.R. Ravishankara (US), Co-Chair of the Scientific Assessment Panel, discussed levels and trends of ODS, with an emphasis on HCFCs. He also gave a bird's eye view of the Panel's coming 2010 assessment and a timeline of its planned work through 2011, and discussed the current level of atmospheric ozone and its trends and the current understanding of atmospheric science.

Environmental Effects Assessment Panel: Jan van der Leun (Netherlands), Co-Chair of the Environmental Effects Assessment Panel, recounted the interactions between ozone depletion and climate change, and discussed ultraviolet radiation and skin cancer as some of the side effects of the ozone hole. He discussed several studies documenting these issues and showing their highly interconnected nature. He said that a progress report on the Panel's work will appear soon.

Technology and Economic Assessment Panel (TEAP): Lambert Kuijpers (Netherlands), Co-Chair of the TEAP, updated the timelines for the Panel's work including on halons, quarantine and preshipment (QPS) and methyl bromide. He

recounted timelines for the Panel's work up to 2010, and listed many of the issues it will cover in its six technical options committees, which produce several series of reports. He discussed halons, supply and demand, and remaining challenges for total phase out of CFC-based metered-dose inhalers (MDIs).

PRESENTATION BY THE MULTILATERAL FUND ON THE WORK OF THE EXECUTIVE COMMITTEE:

On Wednesday, Albert Rombonot (Gabon), Chair of the Executive Committee of the Multilateral Fund, described the Multilateral Fund's work to phase out ODS and recognized several implementation agencies, including the United Nations Development Programme (UNDP) and the United Nations Industrial Development Organization (UNIDO), for their in-country work. He enumerated that the Multilateral Fund has 50 agreements with national governments and has disbursed US\$140 million to phase out ODS. He analyzed the capacity of countries to honor their commitments, and success towards the phase-out of CFCs by 2010. He said that 2008 is a transition year for moving on the issue of HCFCs and helping Article 5 countries stay on schedule.

COUNTRY STATEMENTS: On Wednesday and Thursday, delegates heard statements from senior officials and heads of delegations. Egypt announced that it will host MOP-21 in Sharm el-Sheikh, Egypt. Many countries spoke regarding their efforts and challenges in phasing out HCFCs. India said that one of the challenges in meeting, the freeze by 2013 is that HCFC alternatives without a high-global warming potential (GWP) remain elusive. Sri Lanka explained that its next challenge was to phase out HCFCs, especially since consumption is increasing. Iraq described its project to phase out HCFCs and its establishment of a national ozone committee. Djibouti noted the need for availability of HCFC substitutes and for financial assistance from the Multilateral Fund. Noting that the Montreal Protocol benefits both the ozone layer and climate system, the US stressed the need to destroy ODS banks and to find ways of replacing HCFCs with substances with low, or neutral, GWP.

Burkina Faso highlighted its need for technical and financial support for the development of an HCFC management plan. Japan said there is a need to focus on facilitating the phase-out of HCFCs in Article 5 countries and said it would assist through technology transfer. Venezuela noted the need to fight illicit trade in ODS, and for clear and specific actions regarding methyl bromide regulation. Kuwait called for regulations and a schedule for the phase-out of HCFCs. China said that there is a lack of mature and feasible alternatives to HCFCs, and thus total HCFC phase-out would be a long process. Syria said that they have removed 90% of the halons and are looking forward towards accelerated HCFC phase-out. A representative of Finland, on behalf of the Expert Group on Technology Transfer of the United Nations Framework Convention on Climate Change (UNFCCC), said that if HCFCs increase as a result of the Montreal Protocol it will contribute to climate change, and urged cooperation between the Montreal Protocol and the UNFCCC. In response to the historic agreement on HCFCs at MOP-19, Serbia announced that it is convening a high-level briefing on the HCFC phase-out, scheduled to convene in Belgrade in March 2009. The Philippines noted its work to reduce CFCs and phase out HCFCs.

Many countries highlighted activities towards ozone protection. Bosnia and Herzegovina noted his country's effort since 2000 to reduce ODS, saying it is now on track to reach zero consumption of CFCs by 2010. Highlighting its efforts towards ozone protection, Uganda described the challenge of containing illegal trade in ODS, and advocated for technology transfer to Article 5 countries for phasing out ODS. The Dominican Republic highlighted training of refrigeration technicians. South Africa suggested that Basel Regional and Coordinating Centers should also undertake work on implementation of the Montreal Protocol. The EU urged delegates to avoid resting on past achievements and said the Multilateral Fund should avoid indirectly funding production of HCFCs and avoid products with high GWP. Jordan said it had eliminated 70% of ODS and that it was initiating a renewable energy fund. Lebanon informed delegates it had exceeded the requirements of the Vienna Convention and Montreal Protocol, and advocated for the establishment of a pan-Arab body to address ozone issues. Tanzania said it has phased out 80% of its CFC consumption, and that training of professionals to organize recovery and recycling programmes is necessary.

The Lao People's Democratic Republic stated that it has established an import/export licensing system to regulate trade in ODS. Cameroon described its awareness-raising campaign to inform the public about ozone issues and its capacity-building workshops for phytosanitary specialists who use ODS, but stated that illicit trafficking of ODS remains a problem. Yemen recounted its successful phase-out of CFCs from aerosols and halons from fire extinguishers. Macedonia described its elimination of CFCs in government departments. Burundi described its efforts to phase out CFCs. The United Arab Emirates outlined work to combat illegal trade in ODS, including enacting laws on importing and licensing of ODS. Bangladesh explained that the transition to non-CFC based MDIs is a time consuming process and that CFC-free MDIs are not yet available in his country. Mozambique explained it has reduced CFC and methyl bromide imports, but was seeking further partnerships in technology transfer, institutional capacity building and financial support. Croatia highlighted its efforts to phase out ODS, but said an efficient system for recovery, recycling and destruction of ODS was required. Indonesia urged ODS producers to do more to prevent the export of banned ODS.

Brunei Darussalam informed delegates that it is on-track to meet its commitments, and thanked the implementing agencies. Cambodia stressed that capacity building of personnel in the national ozone unit was a priority. Iran said it had established a national ozone network, including comprehensive training on appreciation of ozone-related data and ODS tracking. Armenia stated it has achieved an 85% reduction in CFC consumption, and is working towards a total phase-out of CFCs by 2010. Malaysia reported its CFC consumption in 2007 was well below its commitments under the Montreal Protocol. Kenya described how most remaining ODS are contained in functioning and still-needed refrigerators and air conditioners, which will make them difficult to collect. Brazil reported that it has eliminated about 90% of ODS, and acknowledged the value of programmes to collect, transport and store ODS. Trinidad and Tobago said they have a multi-sectoral policy approach for phasing out

ODS, which includes the implementation of the freeze and quota systems for CFCs. Cuba noted that it was leading an energy revolution in phasing out CFCs in domestic refrigerators. Afghanistan requested the Multilateral Fund to consider the difficulties faced by Afghanistan in achieving the targets for ODS phase-out. Pakistan explained that with support from the Multilateral Fund, refrigeration and foam-based industries in Pakistan have switched from use of CFCs to ozone-friendly technologies. Turkey stated that it does not produce ODS, has banned all CFC imports, and is ready to implement an accelerated phase-out schedule for HCFCs.

Sudan suggested that there is a need to expand ozone monitoring stations, ground monitoring and observation stations, and deal with stockpiles. Myanmar said environmental protection is a high priority, and that they are implementing a country programme for phasing out CFCs with the help of UNIDO. Malawi noted that while the consumption of CFCs is decreasing, big challenges remain, including lack of capacity for destroying stockpiles of ODS. The Federated States of Micronesia welcomed discussion on the decision for destruction of ODS banks. The Basel Convention highlighted the importance of synergies between chemicals and waste-related conventions and the need for greater participation of the Basel Convention in the Montreal Protocol. Mauritius highlighted the urgent need to make bold decisions on the destruction of ODS banks and replenishment of the Multilateral Fund.

Greenpeace said the growth of the ozone hole is a stark reminder of the need to eliminate ODS, and that parties need to phase out HCFCs utilizing safe destruction methods. The International Institute of Refrigeration noted efforts must continue to eliminate CFCs in refrigerators and said that alternatives such as solar or magnetic refrigeration are now available. The Institute for Governance and Sustainable Development supported consideration of destruction of ODS banks and addressing HCFC phase-out.

COP-8/MOP-20 OUTCOMES AND DECISIONS

OZONE RESEARCH MANAGERS REPORT: Participants discussed the report of the 7th meeting of the Ozone Research Managers (ORM) on Sunday and Tuesday.

Michael Kurylo, Chair of the 7th ORM meeting, said ozone depletion and climate change are highly interconnected and the complexities of ozone and climate science demand new measurement activities. He highlighted several recommendations from the report, including those on increased research on ozone evolution and monitoring. Senegal urged space agencies and governments to coordinate work on long-term time-series satellite data, citing gaps in monitoring ozone that are likely to occur.

The EU expressed general support for research activities and requested time to review the draft decisions to ensure all necessary additional details were included. The US expressed surprise at the existence of gaps in satellite data, and urged that attention be directed towards this problem. TEAP responded, saying that a statement has been issued calling attention to the problem, and invited additional discussion. On Thursday, during the evening plenary, Senegal proposed minor amendments to the draft decision. The preparatory segment forwarded the decision to the high-level segment, where the decision was adopted.

Final Decision: The decision on the report of seventh meeting of the ORM (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, COP Decision XX/A) takes note of the report of the seventh meeting of the ORM and endorses the recommendations adopted by the ORM at its meeting. The decision requests all parties to make a renewed effort to implement the actions recommended by the ORM, particularly those adopted at its seventh meeting, with a view to:

- address uncertainties and new questions, including actual quantification of the extent to which chemical and dynamical processes are responsible for ozone production, loss, transport and distribution;
- maintain and expand surface observation networks where gaps in geographical coverage result in data deficiencies in order to ensure the continuity and improvement of ground-based *in situ* observations of ozone depleting substances, their substitutes and greenhouse gases as well as the networks that provide altitude profile information for ozone and climate related species;
- ensure that data acquired through observation are of the highest possible quality and include the metadata necessary to make them valuable to users today and in the future; and
- strengthen the capacity of developing countries and countries with economies in transition to enable them to maintain existing instruments and networks, acquire new observational capabilities and increase their participation in scientific research and assessments.

STATUS OF THE GENERAL TRUST FUND FOR FINANCING ACTIVITIES ON RESEARCH AND SYSTEMATIC OBSERVATIONS:

On Sunday, Megumi Seki, Ozone Secretariat, presented a report on the Vienna Convention Trust Fund, explaining that the Trust Fund provides support to maintain existing World Meteorological Organization-Global Atmosphere Watch (WMO-GAW) satellites. She said the Fund had received contributions of US\$179,135. Geir Braathen, WMO, reported on the Trust Fund's activities outlining the ozone observing system of the WMO-GAW and WMO's planned activities for 2009.

In the ensuing discussion, Kuwait questioned WMO regarding the possibility of installing an ozone monitoring system covering the Arab Gulf region. Indonesia requested more support to increase its ozone monitoring capabilities. Canada reported on its continued support for ozone monitoring and expressed concern about the upcoming decommissioning of satellites, which might result in a gap in observation of the ozone layer, and called for funding to maintain a strong global monitoring system.

Jordan requested funding for comprehensive monitoring to cover all regions, especially Western Asia, which faces severe risks from ozone depletion. Saudi Arabia noted that some Gulf countries still lack monitoring tools and supported increased monitoring at stratospheric and tropospheric levels. Noting several impacts of climate change on the southern hemisphere, Argentina suggested building on synergies between efforts to protect the ozone layer and to combat climate change.

On Wednesday, delegates agreed to minor amendments to the draft decision and forwarded it to the high-level segment, where the decision was adopted Thursday afternoon.

Final Decision: In the decision on the trust fund for research and observations relevant to the Convention (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, COP Decision XX/B), the COP, *inter alia*:

- urges all parties and relevant international organizations to make voluntary financial contributions to the Trust Fund to enable the continuation and enhancement of monitoring and research activities in developing countries, taking into account the need for balanced global coverage;
- requests the Secretariat to continue to invite parties and relevant international organizations annually to make voluntary contributions to the Fund and with each successive invitation to the parties to report on the prior years' contributions, funded activities and planned future activities;
- requests the Secretariat and the WMO to continue their cooperation in respect of the Trust Fund pursuant to the terms of the memorandum of understanding between the two bodies and to alert the parties to amend the memorandum of understanding to take into consideration evolving needs and conditions; and
- reminds the Secretariat and the WMO of the request that they strive for regional balance in the activities supported by the Fund and to make an effort to leverage other sources of funding.

FINANCIAL REPORTS AND BUDGETS OF THE TRUST FUNDS FOR THE VIENNA CONVENTION AND THE MONTREAL PROTOCOL: Preparatory Segment Co-Chair Sørensen introduced the agenda item (UNEP/OzL.Conv.8/4-UNEP/OzL.Pro.20/4) on Sunday and delegates agreed to follow the established practice of setting up a subcommittee to prepare a draft recommendation for consideration by parties. France, for the European Community and its member states (EU), called on parties to pay contributions in full and on time.

The budget group discussed the trust funds further on Wednesday, and it was decided that the budget would require no increase and budget levels would remain level for at least two years for the Montreal Protocol and at least three years for the Vienna Convention. The decision was forwarded to the high-level segment and adopted Thursday.

Final Decision: In the decision on the financial reports and budgets of the trust funds for the Vienna Convention and the Montreal Protocol (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, COP Decision XX/C), the COP, *inter alia*:

- takes note with appreciation of the financial statement of the Trust Fund for the biennium 2006-2007 and the report on the actual expenditures for 2007 as compared to the approvals for that year;
- approves the revised 2008 budget for the Trust Fund in the amount of US\$1,213,142, the amount of US\$699,897 for 2009, the amount of US\$717,901 for 2010, and the amount of US\$1,268,489 for 2011;
- authorizes the Secretariat to draw down an amount of US\$96,897, US\$114,901 and US\$665,489 in years 2009, 2010 and 2011, respectively, from the Fund's balance;
- ensures, as a consequence of the draw-downs, that the contributions to be paid by the parties amount to US\$603,000 for the years 2009, 2010 and 2011;
- urges all parties to pay their outstanding contributions as well

- as their future contributions promptly and in full; and
- requests the Executive Director to extend the Vienna Convention Trust Fund until 31 December 2015.

The budget tables are contained in an annex to the decision document.

STATUS OF RATIFICATIONS: Preparatory Segment Co-Chair Beaumont reported on the ratification status of the Vienna Convention, the Montreal Protocol and the Amendments to the Montreal Protocol on Monday. Delegates agreed to amend the respective draft decisions, VIII/AA and XX/AA (UNEP/OzL.Conv.8/3 and UNEP/OzL.Pro.20/3), and forward them to the high-level segment, where they were adopted on Thursday.

Final Decision: In the decision on ratification of the Montreal Protocol and Vienna Convention (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, COP/MOP Decision VIII/E and XX/E), the COP/MOP agrees to:

- note with satisfaction the number of countries that have ratified the Vienna Convention and the Montreal Protocol;
- note that, as of 15 November 2008, 189 parties had ratified the London Amendment to the Montreal Protocol, 184 parties had ratified the Copenhagen Amendment to the Montreal Protocol, 167 parties had ratified the Montreal Amendment to the Montreal Protocol and 144 parties had ratified the Beijing Amendment to the Montreal Protocol; and
- urge all states that have not yet done so to ratify, approve or accede to the Vienna Convention and the Montreal Protocol and its amendments, taking into account that universal participation is necessary to ensure the protection of the ozone layer.

REPLENISHMENT OF THE MULTILATERAL FUND: This issue was discussed in plenary on Sunday through Thursday and negotiations took place in a contact group from Sunday evening until Thursday at noon.

The plenary discussion on replenishment started off with a presentation by TEAP members on the basis of the reports of the TEAP Replenishment Task Force on Assessment of the Funding Requirement for the Replenishment of the Multilateral Fund 2009-2011. TEAP members explained that the total funding requirements for the period were in the range of US\$399 million to US\$630 million. The presenters outlined issues and costs related to inflation, cut-off dates, institutional strengthening, second conversions, cost-effectiveness factors, climate benefits and demonstration projects.

In the ensuing discussion, delegates debated replenishment and the fixed-exchange-rate mechanism. Uruguay urged that when considering the Fund's replenishment, delegates also consider synergies with the Kyoto Protocol in order not to "misstep" the goal of mitigating climate change. The US noted its concern with, *inter alia*, unconstrained production and consumption of HCFC in Article 5 countries until the freeze year of 2013, and instead suggested balanced funding to ensure a steady decline in HCFCs. China underscored the need for sufficient financial support for institution building and for Article 5 countries to meet their HCFC phase-out schedules. Japan suggested more focused discussion about the replenishment of the Fund. Jordan highlighted the importance of financial strategies enabling parties to meet cut-off dates, and strengthening institutions. Colombia urged that cut-off dates

be flexible and take into account the interests and concerns of Article 5 countries. Morocco urged making sufficient funding available to Article 5 countries for destruction, conversion and re-conversion. Argentina emphasized the importance of financial support for Article 5 countries and of assuring that replacements have the least GWP. Malaysia said that the total funding estimated by TEAP may be insufficient for the costs of HCFC phase-out.

Regarding the fixed-exchange-rate mechanism, the US said that it only provisionally supported the mechanism, since it remains to be seen how it operates in a weak economy. The EU said discussions on whether to make the fixed-exchange-rate mechanism permanent would be useful.

In plenary on Wednesday, Albert Rombonot (Gabon), Chair, Executive Committee of the Multilateral Fund, described the Multilateral Fund's work to phase out ODS. He enumerated that the Multilateral Fund has 50 agreements with national governments and has disbursed US\$140 million to phase out ODS.

The contact group was co-chaired by Laura Berón (Argentina) and Jozef Buys (Belgium). In response to the high degree of interest, delegates agreed the contact group would begin its work as an open-ended group. Delegates first discussed whether the contact group should return to the previously used working modality of only having 12 members from Article 2 countries and 12 members from Article 5 countries negotiate. They agreed to return to this working modality on Monday afternoon and closed the meeting to observers.

On Monday morning, delegates gave general opening statements, focusing mainly on two scenarios for HCFC-related activities set out by the TEAP Replenishment Task Force, namely: the baseline or lowest cost scenario, assuming modest quantities of HCFCs will be phased out during the triennium; and the 2012 consumption level scenario, assuming larger quantities will have to be phased out due to increased production. Many Article 2 countries preferred to start negotiations from the baseline scenario, while several Article 5 countries expressed their support for the 2012 funding scenario.

Delegates then considered the issues as set out in the executive summary of the supplemental report of the TEAP Replenishment Task Force (UNEP/OzL.Pro.20/6). Regarding taking inflation into account, Article 2 countries pointed to the financial crisis and prospects of deflation and said it was not the time to start accounting for inflation; while Article 5 countries pointed to the preponderance of inflation in their countries. On cut-off dates for HCFCs, many Article 5 countries preferred a later cut-off date while some Article 2 countries noted that an earlier cut-off date would mean that subsequent increases would not be eligible for funding and others suggested spreading eligible funding over more than one triennium.

In the closed session Monday afternoon, the contact group considered all budget items proposed by the TEAP, except those relating to HCFCs and destruction of ODS. They considered those items line by line, asking for additional clarification by the TEAP, and agreed to a total amount of US\$158 million for compliance-related activities.

The contact group then considered HCFC-related activities, which were to be included in the replenishment for the first time and were likely to make up nearly two-thirds of the overall allocation. Delegates agreed not to consider this item line by line, due to the wide range in funding estimates and uncertainties with regard to inclusion of second conversions and cut-off dates. They agreed instead to negotiate the overall allocation, based on the TEAP scenarios and the total funding for the 2009-2011 replenishment. They agreed that the required range of funding for the baseline scenario was US\$338.7 - 387.2 million, and for the 2012 funding scenario was US\$510.6 - US\$629.8 million. Negotiations started off with one Article 2 party commenting that "the lowest allocation was too high" and Article 5 parties countering that "the highest allocation was too low," suggesting an overall allocation of over US\$700 million. By Wednesday evening, Article 2 parties were suggesting a total allocation of US\$400 million and Article 5 countries were insisting on a minimum of US\$580 million. The contact group concluded its negotiations on Thursday at noon agreeing to a total allocation of US\$490 million.

In plenary on Thursday, Contact Group Co-Chair Buys reported that the group agreed to a replenishment of US\$490 million, including a US\$73 million carry over and US\$17 million in interest earned over the past triennium. As a result, the new contributions amount to US\$400 million. Co-Chairs Buys and Béron thanked delegates for their willingness to cooperate and said the decision was historic, especially in a time of financial crisis.

Delegates considered the draft decision on the 2009-2011 replenishment of the Multilateral Fund with an annex containing the contributions by parties to the Seventh Replenishment of the Multilateral Fund according to the UN scale of assessments (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/A). Germany agreed to this decision, noting that as a formality it still had to seek parliamentary ratification, which could be done after the decision was adopted. Delegates sought some clarification about the scale of assessments for the contributions, and Contact Group Co-Chair Béron explained that the numbers in the annex would be checked and corrected if necessary. Japan thanked delegates for their cooperation in resolving this difficult issue. The US clarified that it could not use the fixed-exchange-rate system, since it made its contribution in US dollars. The decision was amended and forwarded to the high-level segment where it was adopted on Thursday evening.

Delegates also considered the decision on the fixed-exchange-rate system (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, COP Decision XX/D), which was forwarded to the high-level segment and adopted on Thursday evening.

Final Decisions: In the decision on the 2009-2011 replenishment of the Multilateral Fund (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/A), parties agreed to adopt a budget for the Multilateral Fund for the Implementation of the Montreal Protocol for 2009-2011 of US\$490,000,000. Parties noted outstanding contributions from some parties with economies in transition in the period 2006-2008 stand at US\$5,604,438. Parties further adopted the scale of contributions based on a replenishment of US\$133,333,334 for 2009, US\$133,333,333 for 2010, and US\$133,333,333 for 2011. Parties

also requested the Executive Committee of the Multilateral Fund to take action to ensure that the entire budget for 2009-2011 is committed by the end of 2011, and that parties not operating under paragraph 1 of Article 5 should make timely payments. An annex contains the contributions by parties to the seventh replenishment of the Multilateral Fund, according to the UN scale of assessments.

The decision on the extension of the fixed-exchange-rate mechanism to the 2009-2011 replenishment of the Multilateral Fund (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2 MOP Decision XX/D) agrees to: direct the Treasurer to extend the fixed-exchange-rate mechanism to the period 2009-2011; and urge parties to pay their contributions to the Multilateral Fund in full and as early as possible.

The MOP further agreed that: parties choosing to pay their contributions to the Multilateral Fund in national currencies will calculate their contributions based on the average UN exchange rate for the six-month period commencing 1 January 2008; parties not choosing to pay in national currencies pursuant to the fixed-exchange-rate mechanism will continue to pay in US dollars; only parties with inflation rate fluctuations of less than 10% for the preceding triennium will be eligible to utilize the fixed-exchange-rate mechanism; and if the fixed-exchange-rate mechanism is to be used for the replenishment period 2012-2014, parties choosing to pay their contributions in national currencies will calculate their contributions based on the average UN exchange rate for the six-month period commencing 1 January 2011.

ENVIRONMENTALLY SOUND DISPOSAL OF ODS:

This issue was introduced in plenary on Sunday, and then discussed in a contact group co-chaired by Martin Sirois (Canada) and Agustín Sánchez (Mexico) throughout the week, and in closed session beginning on Tuesday. In plenary, delegates initiated discussion on this issue and heard a report from the OEWG-28 contact group on ODS disposal (UNEP/OzL.Conv.8/3-UNEP/OzL.Pro.20/3) explaining the group received comments from seven parties, which included a suggestion to take a step-by-step approach for destruction of ODS banks. Mexico highlighted its CRP (UNEP/OzL.Pro.20/CRP.3) proposing to finance pilot projects for the destruction of contaminated CFC banks that have been accumulated and that cannot fit into existing banks. The European Commission (EC) noted that they support a step-by-step approach, where the first goal would be to build upon the ongoing work of the implementing agencies or the Multilateral Fund to develop practical experience with the ODS bank management process.

Several delegates stressed the need for rapid action on environmentally sound disposal of ODS. Proposals were made to move in two or three stages: beginning with the most accessible banks, followed by medium and high-effort banks. Much discussion covered potential use of the Multilateral Fund to assist Article 5 countries. Delegates also discussed the need for additional data about banks.

The contact group completed its work on Wednesday and announced it had reached consensus. The EU welcomed the work on destruction but expressed concern about a reference to the term “net GWP”, saying that the use of that term should

by no means be used as a precedent for future work. Delegates agreed to forward the draft decision (UNEP/OzL.Pro.20/CRP.16) to the high-level segment, where it was adopted.

Final Decision: In the final decision (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2 MOP Decision XX/B), the MOP, *inter alia*:

- invites parties and international funding agencies, including the Multilateral Fund, the Global Environment Facility (GEF) and other interested agents, to enable practical solutions for the purpose of gaining better knowledge on mitigating ODS emissions and destroying ODS banks, and on costs related to the collection, transportation, storage and destruction of ozone depleting substances, notably in parties operating under paragraph 1 of Article 5;
- requests the Executive Committee of the Multilateral Fund to consider commencing pilot projects that may cover the collection, transport, storage and destruction of ODS. As an initial priority, the Executive Committee might consider projects with a focus on assembled stocks of ODS with high net global warming potential, in a representative sample of regionally diverse Article 5 parties;
- encourages parties to develop or consider further improvements in the implementation of national and/or regional legislative strategies and other measures that prevent the venting, leakage or emission of ODS by ensuring proper recovery of ODS from equipment containing ODS, the use of best practices and performance standards;
- encourages all parties to develop or consider improvements in national or regional strategies for the management of banks, including provisions to combat illegal trade;
- invites parties to submit their strategies and subsequent updates to the Ozone Secretariat as soon as possible;
- requests the TEAP to conduct a comprehensive cost-benefit analysis of destroying banks of ODS, taking into consideration the relative economic costs and environmental benefits to the ozone layer and the climate, of destruction versus recycling, reclaiming and re-using such substances;
- requests the TEAP to provide an interim report in time for dissemination one month before OEWG-29 and to provide the final report one month before MOP-21; and
- requests the Ozone Secretariat, with the assistance of the Multilateral Fund Secretariat, to consult with experts from the UNFCCC, GEF, Executive Board of the Clean Development Mechanism and the World Bank to develop a report on possible funding opportunities for the management and destruction of ODS banks and report to OEWG-29.

ISSUES RELATED TO ESSENTIAL USES: Delegates considered both essential-use nominations for MDIs and for the use of CFC-113 for certain aerospace applications.

CFC-113 for certain aerospace applications: Discussions on this issue took place on Monday. The Russian Federation made a request for the use of 130 tons of CFC-113 in the aerospace industry for 2009. The TEAP had authorized this request and a TEAP representative determined that their visit to the Russian Federation had stated that alternatives are being actively sought and amounts for exemptions are decreasing. The Russian Federation thanked TEAP for its work. The EC and the US requested further details about the TEAP visit to Russia, and

a TEAP member explained how they determined the essential use exemption for CFC-113. The parties agreed to confirm the allocation in 2008 of 140 tons and in 2009 of the 130 tons agreed to by MOP-19 for that use.

Essential uses and campaign production of CFCs for MDIs: Delegates discussed essential-use nominations for MDIs (UNEP/OzL.Conv.8/3-UNEP/OzL.Pro.20/3) in plenary on Sunday, Monday, Tuesday and Wednesday. A contact group convened from Monday until Thursday.

In plenary, delegates heard update reports by TEAP members, regarding nominations for essential-use exemptions for MDIs requested by the Russian Federation and the EC for 2009, and the US for 2010. TEAP reluctantly agreed to recommend such essential-use exemptions for the EC and the US with the understanding that no further nominations would be forthcoming from them. Preparatory Segment Co-Chair Beaumont noted that the EC had reduced its request for MDI essential-use exemptions from 38 to 22 tons of CFCs for 2009. The US reduced its request from 182 to 92 tons of CFCs for 2010. The US thanked the Medical Technical Options Committee (MTOC) for its work, noted concerns over the MTOC's suggestion of transitioning from epinephrine inhalers to an alternative in 2010, and looked forward to working with the EC on a joint CRP. The EC noted its support for working with the US. Preparatory Segment Co-Chair Sørensen suggested, and delegates agreed, to forward the proposal of the EC and US for a draft decision on essential-use exemptions of CFCs for MDIs (UNEP/OzL.Pro.20/CRP.10) to the high-level segment.

Delegates heard a report by the OEWG-28 campaign production and essential uses contact group providing an update on its work since OEWG-28 (UNEP/OzL.Pro.20/INF/9), noting, *inter alia*, that the group is still considering final campaign production of CFCs to supply requirements for MDI manufacturing after 2009. Further work was referred to a contact group on the issue.

The contact group was chaired by Paul Krajnik (Austria). Participants first considered the submission by the OEWG-28 contact group on MDIs regarding modifications of the terms used in past decisions on essential uses to extend their applicability to Article 5 parties' nominations for essential-use exemptions. Delegates deliberated on deleting references to non-applicability of a number of decisions affecting Article 5 parties vis-à-vis essential-use nominations for the years 1997-2002, 2000 and 2001 and for 2006 and 2007 (Decisions VIII/9, XI/14, XVII/5, respectively), and agreeing on deadlines for promoting industry participation for a smooth and efficient transition away from CFC-based MDIs. Several parties objected to the inclusion of deadlines, suggesting that they did not have appropriate technology, and debated the time required for transition and whether phase-out could be assisted by regulation. Delegates agreed to a number of deadlines, including a deadline of MOP-21, after which no essential uses shall be approved for Article 5 parties, unless they have submitted at least a preliminary plan of action regarding phase-out of MDIs for consideration by OEWG-29. While many Article 5 parties insisted on a 31 December 2009 deadline for approval of MDI inhalers in Article 5 countries to be eligible for consideration for essential-use exemptions, many Article 2 countries preferred 31 December 2008, arguing that it

was counterproductive to approve new products up to the final phase-out date. Delegates could not reach agreement and the meeting was suspended until Thursday to allow time for informal consultations. On Thursday, delegates agreed to compromise language referring to "any chlorofluorocarbon metered-dose inhaler product approved after 31 December 2008, excluding any product in the process of registration and approved by 31 December 2009.

The contact group also considered a proposal by the US for a draft decision on campaign financing. Delegates agreed to a preambular reference acknowledging that while CFC production and consumption in Article 5 countries will cease in 2010, essential-use exemptions will be possible. Delegates also clarified that campaign production constitutes a one-time essential-use exemption for the multi-year period determined by a party to phase out CFC-based MDIs. On Thursday, delegates agreed to forward the decisions on essential-use exemptions for the use of CFCs for the production of MDIs, further study of campaign production of CFCs for MDIs, and on modifications of the terms used in past decisions on essential uses to extend their applicability to Article 5 parties' nominations for essential-use exemptions. The high-level segment approved the decisions without amendment.

Final Decisions: In the decision on nominations for essential use exemptions for the use of CFCs for the production of MDIs (UNEP/OzL.Pro.20/CRP.10), the MOP decides to authorize the levels of production and consumption for 2009 and 2010 necessary to satisfy essential uses of CFCs for MDIs for asthma and chronic obstructive pulmonary disease as specified in the annex to the decision. Non-Article 5 parties, when licensing, authorizing or allocating essential-use exemptions for a manufacturer of MDIs, shall ensure that pre- and post-1996 stocks of controlled substances are taken into account such that no more than a one-year operational supply is maintained by the manufacturer. The annex to the decision contains the essential use authorizations for 2009 and 2010 for CFCs for MDIs, namely 22 metric tons in 2009 for the EC; 248 metric tons for the Russian Federation for 2009; and 92 metric tons for the US in 2010.

The decision on further study of campaign production of CFCs for MDIs (UNEP/OzL.Pro.20/CRP.14) acknowledges that CFC consumption and production in Article 5 parties will cease on 1 January 2010, with possible essential-use exemptions; recognizes that campaign production offers potential advantages in lieu of annual essential-use nominations to meet needs for pharmaceutical grade CFCs; and acknowledges that the MTOC requires additional information concerning the operation of a final campaign for Article 5 parties. The parties also request the TEAP present a report to MOP-21, preceded by a preliminary report to OEWG-29, concerning: the potential timing for final campaign production; options for long-term storage, distribution, and management of produced quantities of pharmaceutical-grade CFCs; options for minimizing the potential for too much or too little chlorofluorocarbon production as part of a final campaign; contractual arrangements that may be necessary; and options for reducing production of non-pharmaceutical-grade CFCs as well as options for final disposal of such CFCs. Parties further request the Multilateral Fund Secretariat to report to OEWG-29 on the

status of agreements to convert MDI manufacturing facilities in Article 5 countries and on the implementation of approved projects.

In the decision on modifications of the terms used in past decisions on essential uses to extend their applicability to Article 5 parties' nominations for essential-use exemptions (UNEP/OzL.Pro.20/CRP.17), the MOP decides to make modifications to a number of existing MOP decisions, in some cases to amend the title of decisions and remove the reference to non-Article 5 parties, so as to extend their application to Article 5 parties. The MOP further decides to include new references in:

- MOP Decision XVII/5, requesting Article 5 parties to submit a date to the Ozone Secretariat prior to MOP-22 by which time regulations to determine the non-essentiality of the vast majority of CFCs for MDIs, where the active ingredient is not solely Salbutamol, will have been proposed;
- MOP Decision IX/19, requiring Article 5 parties submitting essential-use nominations for CFCs for MDIs for the treatment of asthma and chronic obstructive pulmonary disease to present to the Ozone Secretariat an initial national or regional transition strategy by 31 January 2010 for circulation to all parties and, where possible, by 31 January 2009;
- MOP Decision XII/2, which states that a CFC MDI product approved after 31 December 2008, excluding any product in the process of registration and approved by 31 December 2009, for treatment of asthma and/or chronic obstructive pulmonary disease in an Article 5 party, is not an essential use; and
- MOP Decision XV/5, which states that no quantity of CFCs for essential uses shall be authorized after the commencement of MOP-21 if the nominating Article 5 party has not submitted to the Ozone Secretariat, in time for consideration by OEWG-29, a preliminary plan of action regarding the phase-out of the domestic use of CFC-containing MDIs where the sole active ingredient is Salbutamol.

The MOP further decides:

- that parties submitting nominations for essential-use exemptions and the TEAP reviewing nominations for essential-use exemptions shall consider the amended decisions when considering essential-use nominations in 2009 and beyond;
- to request the Secretariat to include the changes above in the relevant decisions of the parties contained in the Montreal Protocol Handbook at the time of its next revision; and
- to request the TEAP to reflect this decision in a revised version of the handbook on essential-use nominations and to submit, for consideration by parties, suggestions of any appropriate changes to the handbook and the timing to make such changes.

CONSIDERATION OF METHYL BROMIDE-RELATED ISSUES: On Monday, delegates discussed methyl bromide-related issues, including: nominations for 2009 and 2010 for critical-use exemptions; adjustment to the Montreal Protocol on allowances for production of methyl bromide to meet basic domestic needs; and QPS uses of methyl bromide. A contact group on methyl bromide also met throughout the week to discuss the draft decision on actions by parties to reduce methyl

bromide use for QPS (UNEP/OzL.Pro.20/CRP.5), as well as the proposals by the US and the EC for a decision on methyl bromide critical-use exemptions for 2009-2010 (UNEP/OzL.Pro.20/CRP.9 and UNEP/OzL.Pro.20/CRP.12), which were forwarded to the high-level segment on Thursday and adopted.

Nominations for 2009 and 2010 for critical-use exemptions (CUEs): During plenary, MBTOC Co-Chair Mohamed Besri discussed global consumption of methyl bromide in Article 5 and non-Article 5 parties from 1991 to 2007, and provided an update on the meta-analysis of methyl bromide CUEs for the US. MBTOC Co-Chair Marta Pizano provided an overview of the critical use nominations (CUNs) for methyl bromide, noting a general downward trend.

MBTOC Co-Chair Ian Porter discussed CUNs for methyl bromide's use for soil fumigation, saying that Australia and Canada could reduce CUNs if they adopted regulatory changes that lower methyl bromide dose rates, or adopt barrier films for strawberry runners. MBTOC Co-Chair Michelle Marcotte presented the MBTOC's Report on Quarantine, Structures and Commodities. In the ensuing discussion, Japan highlighted its decision to eliminate the use of methyl bromide by 2013. The EC proposed a draft decision on increasing the rate with which methyl bromide alternatives are used.

In a contact group co-chaired by Barry Reville (Australia) and Gabriel Hakizimana (Burundi), delegates considered alternative proposals for a draft decision on the evaluation of methyl bromide CUNs (UNEP/OzL.Pro.20/CRP.9 and UNEP/OzL.Pro.20/CRP.12). The proposal submitted by the EC built on the original draft decision, and added, *inter alia*, evaluation of efforts to approve alternatives and substitutes. The US proposal contained a more streamlined decision, including a suggestion that the MBTOC develop its recommendations as a single entity in a consensus process. Delegates did not agree on which proposal to work with. Some delegates raised concerns regarding transparency of MBTOC decision making in general, and the need for the MBTOC to provide additional information regarding its decisions in a timely manner, while others stressed the need to ensure that parties provide appropriate guidance to the MBTOC. On Wednesday, participants agreed to merge the US and EC documents into one, which was provisionally approved. On Thursday, the text was forwarded to the high-level segment. During the high-level segment, Australia noted that the decision, as included in the compilation decisions document (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2 MOP Decision XX/O) omitted an operative paragraph. He therefore proposed, and delegates agreed, to adopt the CRP.18/Rev.1.

Adjustment to the Montreal Protocol on allowances for production of methyl bromide to meet basic domestic needs of Article 5 parties (proposal by Kenya and Mauritius):

During plenary, Kenya, with Mauritius, proposed a draft decision (UNEP/OzL.Conv.8/3-UNEP/OzL.Pro.20/3) reducing the maximum production allowance for methyl bromide by half, beginning 1 January 2010. Jordan stated that date farmers, in particular, need to continue using methyl bromide and, supported by Morocco, opposed the proposal citing the economic value of agriculture. Mauritius, opposed by Tunisia, stressed that alternatives to methyl bromide may be available. The US

described recent successes and expressed optimism about further reductions in its use of methyl bromide. The EU supported the proposal, saying that alternatives are available.

Co-Chair Sørensen concluded the discussion on methyl bromide, stating that due to divergent views, the Kenyan proposal would not be considered further at MOP-20.

QPS uses of methyl bromide: In the contact group, participants discussed the draft decision on actions by parties to reduce methyl bromide use for QPS purposes and related emissions (UNEP/OzL.Pro.20/CRP.5), submitted by the EC, Mexico and Switzerland. Initial discussions stalled on the language around the updated definition of pre-shipment, the scope of the data being presented, and requesting the Implementation Committee to consider the reporting of methyl bromide used for QPS applications. Larger concerns also became clear, especially on how much of the data that the TEAP is being requested to analyze is actually available.

Continuing on Tuesday, many parties agreed on the usefulness of more detailed information on the major uses of methyl bromide in QPS. One party opposed additional information collection from parties, when much of the information was already available. Another party questioned whether gathering further information was possible within the required time period. The decision's sponsor maintained that the survey on where and how methyl bromide is used for QPS is vital to identifying alternatives. One Article 5 country said it would be unable to undertake a survey unless it received support from the Multilateral Fund, while others insisted that the Multilateral Fund cannot fund such an effort since methyl bromide use for QPS is exempt and not covered by the Montreal Protocol. Although consensus was not reached on whether a survey would be included in the draft decision, no other aspects of the decision proved contentious.

On Wednesday, after days of discussion around how TEAP would approach a study of methyl bromide uses in QPS, participants gravitated towards a multi-stage approach, beginning with TEAP reviewing all information on volumes and uses of methyl bromide for QPS to establish if it could be used to adequately report specific methyl bromide QPS uses.

On Thursday, the draft decision was forwarded to the high-level segment and adopted.

Final Decisions: In the decision on critical-use exemptions for 2009 and 2010 (UNEP/OzL.Pro.20/CRP.18/Rev.1), the MOP:

- permits the agreed critical-use categories for 2009 set forth in Table A of the annex to the present decision for each party, the levels of production and consumption for 2009 set forth in Table B of the annex, which are necessary to satisfy critical uses, in addition to the amounts permitted in decision XIX/9;
- requests the TEAP to ensure that recent findings with regard to the adoption rate of alternatives are annually updated and reported to the parties in its first report of each year and inform the work of the Panel;
- requests the TEAP to continue publishing annually in its progress report prior to each meeting of the OEWS the stocks of methyl bromide held by each nominating party, as reported in that party's accounting framework report;
- recognizes the continued contribution of the MBTOC's expertise and agrees that 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;

- requests the TEAP 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 MBTOC should provide a response within four weeks of submission of such a request; and
- requests the TEAP to ensure that its consideration of nominations analyzes the impact of national, subnational, and local regulations and law on the potential use of methyl bromide alternatives, and include a description of the analysis in the critical-use nomination report.

In the final decision on actions by parties to reduce methyl bromide use for QPS purposes and related emissions (UNEP/OzL.Pro.20/CRP.18/Rev.1), the MOP:

- urges those parties that have not yet done so to report data on the use of methyl bromide for QPS applications, as required under paragraph 3 of Article 7, by April 2009 and to report such data annually thereafter;
- requests the Implementation Committee to consider the reporting of methyl bromide used for QPS applications under paragraph 3 of Article 7, in accordance with the Non-Compliance Procedure of the Montreal Protocol;
- requests the TEAP, in consultation with the International Plant Protection Convention (IPPC) Secretariat, to review all relevant, currently available information on the use of methyl bromide for QPS applications and related emissions, to assess trends in the major uses, available alternatives and other mitigation options, and barriers to the adoption of alternatives or determine what additional information or action may be required to meet those objectives;
- requests the TEAP to present a draft report based on the analysis of the available information to the OEWS-29, indicating areas where the information is not sufficient, explaining, where appropriate, why the data were inadequate and proposing how best to gather the information required for a satisfactory analysis;
- requests the TEAP, in accordance with its terms of reference, to list categories of use it has identified that have been classified as QPS use by some parties but not by others by OEWS-29 and that those parties are requested to provide information on the rationale for doing so to the TEAP in time for inclusion in its final report to MOP-21; and
- encourages parties in accordance with the recommendations of the third meeting of the Commission on Phytosanitary Measures under the IPPC to put in place a national strategy that describes actions that will help them reduce the use of methyl bromide for phytosanitary measures and/or reduce emissions of methyl bromide and make such strategies available to other parties through the Ozone Secretariat, where possible, before MOP-21.

APPLICATION OF TRADE PROVISIONS TO HCFCs:

On Monday, delegates agreed to forward the draft decision, proposed by Australia, on application of trade provisions to HCFCs to the high-level segment and delegates adopted the decision on Thursday.

Final Decision: In the decision on the trade provisions to HCFCs (UNEP/OzL.Conv.8/L.2 - UNEP/OzL.Pro.20/L.2, XX/C), the MOP: acknowledges the accelerated phase-out of HCFCs as determined by decision XIX/6, brings forward control measures for HCFCs for parties operating under paragraph 1 of Article 5 of the Protocol from 2016 to 2013, and agrees to substitute paragraph 1(a) of decision XV/3, which refers to 1 January 2016 as the date on which HCFC production and control measures take effect, so that it now refers to 1 January 2013 as the date.

PROCESS AGENTS: On Tuesday, delegates considered the TEAP's recommendation on process agents, including that three of the ten submitted uses could be added to the list of process agents. China suggested, and delegates agreed, that the issue would be revisited at MOP-21.

UPDATE REPORTS BY TEAP: On Monday in the preparatory segment, delegates heard update reports presented by TEAP members.

CTC emissions and opportunities for reduction: Regarding the task force on CTC emissions, a TEAP member reported that although total production had been slowly declining, recent atmospheric measurements have remained high, resulting in the conclusion that there is a rapidly growing new source that has to be investigated further.

Regional imbalances in respect of halons: On Monday in the preparatory segment, delegates considered TEAP's assessment that there may be regional imbalances in the availability of halons and that TEAP may wish to revisit the issue in 2009.

Scoping study on alternatives to HCFCs for mines and very high temperature conditions: On Monday, in the preparatory segment, delegates heard an update regarding the scoping study of alternatives to HCFCs for mines and very high temperature conditions. Explaining why the report was not ready for MOP-20, Co-Chair Beaumont requested TEAP to complete the study by OEWG-29 in 2009. Kuwait, Saudi Arabia, Jordan, Bahrain and Oman reminded parties of the decision to support the study; highlighted the importance of finding alternatives to HCFCs, especially in countries with very high temperatures; requested country-specific field visits to determine alternatives; and urged TEAP to complete the study as soon as possible. The US stressed the importance of the study in light of the accelerated HCFC phase-out schedule. South Africa supported TEAP field visits, saying it uses HCFCs in mines and is seeking alternatives. TEAP confirmed that the study will be available for review by January 2009, and will be discussed at OEWG-29.

TEAP ADMINISTRATIVE ISSUES: On Monday, TEAP Co-Chair Stephen Andersen presented TEAP administrative issues. He explained that the Panel was requesting a budget of US\$100,000 for 2009 for travel and meeting expenses, noting that actual expenditures for such purposes would require approval by the Panel Co-Chairs and the Ozone Secretariat, and would not include consulting fees or wages.

Regarding membership of the technical options committees, the TEAP proposed Sergey Kopylov (Russian Federation) as a new Co-Chair of the Halons Technical Options Committee. Other expert positions needing to be filled included those for nutsedge control, orchard replant, forestry, and nursery propagation for the Methyl Bromide Technical Options Committee; for aviation fire protection for the Halons Technical Options Committee; and for several refrigeration and air conditioning subsectors for the Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee.

It was agreed that the Secretariat would prepare a draft decision on the nomination of Kopylov for consideration during the high-level segment of the meeting, and a draft decision was adopted on Thursday.

Final Decision: In the decision on endorsement of a new Co-Chair of the Halons Technical Options Committee (UNEP/OzL.Conv.8/L.2 - UNEP/OzL.Pro.20/L.2, XX/R), the COP agrees to endorse Sergey Kopylov (Russian Federation) as the new Co-Chair of the Halons TOC.

COMPLIANCE AND REPORTING ISSUES:

Implementation Committee President Hassan Hannachi (Tunisia) presented the report of the 41st meeting of the Implementation Committee on Tuesday. He described a series of recommendations and seven decisions from the report, covering every stage of the compliance system of the Montreal Protocol. He indicated that the data reporting rate has improved significantly, with 188 parties reporting.

In the ensuing discussion, Bangladesh described steps it has taken to phase out ODS and asked delegates to make an exception so it would not face potential non-compliance from 2007-2009. Pakistan supported Bangladesh and proposed following the transition strategy approved by the Executive Committee. Australia, supported by Switzerland, the US and the EC, suggested that the Implementation Committee reconsider the case of Bangladesh during its next meeting in 2009, noting concern about the lack of a work plan or monitoring.

The President of the Implementation Committee said the matter had already been considered in detail, but did not oppose delaying the decision to allow further consideration. Egypt noted that developing countries generally face difficulties replacing CFCs since alternative technologies are often controlled by multinational corporations and hard to access for national companies.

Final Decision: The MOP adopted eight decisions on compliance and reporting issues. The decisions note non-compliance by Somalia and Ecuador (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/T and XX/V, and potential non-compliance by the Solomon Islands (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/S). Additional decisions relate, *inter alia*, to the report on the establishment of licensing systems under Article 4B (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/X), requests for a change in baseline data by Saudi Arabia (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/V), reports of parties submitted under Article 9 (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/U), Montreal Protocol financial matters (UNEP/OzL.Conv.8/L.2-UNEP/

OzL.Pro.20/L.2, MOP Decision XX/Q), and Article 7 data and information (UNEP/OzL.Conv.8/L.2-UNEP/OzL.Pro.20/L.2, MOP Decision XX/I).

CONSIDERATION OF MEMBERSHIP OF MONTREAL PROTOCOL BODIES FOR 2009: Membership of Montreal Protocol Bodies was considered on Wednesday and Thursday in plenary and then approved by the high-level segment on Thursday afternoon.

Members of the Implementation Committee: In the preparatory segment on Wednesday, Co-Chair Beaumont presented a draft decision on the membership of the Implementation Committee (UNEP/OzL. Pro.20/3, Dec XX/BB), noting the countries nominated for this Committee, the President and the Vice President. The high-level segment approved the draft decision.

Final Decision: In the decision on Implementation Committee membership (UNEP/OzL.Conv.8/L.2 - UNEP/OzL.Pro.20/L.2, MOP Decision XX/F), amended to include country names and new Chairs, the MOP confirms the positions of Jordan, Mauritius, Mexico, New Zealand and the Russian Federation as members of the committee for one additional year, and selects Armenia, Germany, Niger, Nicaragua and Sri Lanka as members of the committee for a two-year period commencing on 1 January 2009. It also selects Robyn Washbourne (New Zealand) to serve as President and Ghazi Odat (Jordan) as Vice-President and Rapporteur for a term of one year commencing on 1 January 2009.

Members of the Executive Committee of the Multilateral Fund: In the preparatory segment on Thursday, Co-Chair Beaumont presented a draft decision (UNEP/OzL.Pro.20/3, MOP Decision XX/G) on the Executive Committee of the Multilateral Fund, nominating a number of Article 5 and non-Article 5 countries as members, and a Chair and Vice-Chair. The high-level segment approved the draft decision on Thursday.

Final Decision: In the decision on the Executive Committee of the Multilateral Fund (UNEP/OzL.Conv.8/L.2 - UNEP/OzL. Pro.20/L.2, Dec XX/G), amended to include country names and new Chairs, members of the Executive Committee include the following Article 5 parties: Georgia, China, Yemen, Dominican Republic, Bolivia, Namibia and Gabon; and non-Article 5 parties: US, Japan, Germany, Belgium, Australia, Sweden and Romania, for one year commencing 1 January 2009. The decision also notes the selection of Husamuddin Ahmadzai (Sweden) as President and a delegate from the Dominican Republic as Vice-Chair of the Executive Committee for one year commencing on 1 January 2009.

Co-Chairs of the OEWG: In the preparatory segment on Thursday, Co-Chair Beaumont presented a draft decision on the Co-Chairs of the OEWG (UNEP/OzL.Pro.20/3, Dec XX/DD). The high-level segment approved the draft decision.

Final Decision: In the decision on OEWG membership (UNEP/OzL.Conv.8/L.2 - UNEP/OzL.Pro.20/L.2, MOP Decision XX/H), amended to include names, the MOP names Martin Sirois (Canada) and Maqsood Akhtar (Pakistan) as Co-Chairs of the OEWG of the Montreal Protocol for 2009.

DATES AND VENUES FOR FUTURE MEETINGS: In Thursday's high-level segment, Egypt announced its offer to host MOP-21 in Sharm el Sheikh, Egypt. Parties endorsed the offer and the decision was adopted Thursday.

With regard to the timing of COP-9, MOP-20 President Toth introduced a draft decision (Decision D, UNEP/OzL.Conv.8/L.2 - UNEP/OzL.Pro.20/L.2) to the high-level segment on Thursday, which the parties adopted.

Final Decisions: In the decision on the timing of COP-9 of the Vienna Convention (UNEP/OzL.Conv.8/L.2 - UNEP/OzL. Pro.20/L.2, COP Decision XX/D), the COP agrees to convene its ninth meeting back-to-back with MOP-23.

In the decision on date and venue of MOP-21 (Decision Y, UNEP/OzL.Conv.8/L.2 - UNEP/OzL.Pro.20/L.2), the MOP agrees to convene MOP-21 in Sharm el Sheikh, Egypt, and to announce a firm date for the meeting as soon as possible.

OTHER MATTERS: Submission by Qatar to adopt a Doha Declaration: On Sunday morning in plenary, Qatar presented its proposal for parties to adopt a Doha Declaration, outlining the achievements of MOP-20. The declaration was discussed informally among delegates throughout the meeting. A draft Doha Declaration (UNEP/OzL.Pro.20/CRP.11) was presented to the plenary on Thursday morning. At the request of the EC, Canada and the US, further informal consultations were convened. On Thursday afternoon, delegates agreed to forward the revised Doha Declaration (UNEP/OzL.Pro.20/CRP.11/Rev.1), including sections on the destruction of ODS, the adoption of a culture of "paperless" conferences and the importance of the replenishment of the Multilateral Fund, to the high-level segment for adoption.

Final Declaration: In the Doha Declaration, the ministers of the environment and heads of delegation note the following:

- On the issue of destruction of ODS: resolve to undertake an initial effort to destroy banks of ODS; commit to undertake further studies to assess the technical and economic feasibility of destroying ODS; commit to undertake pilot projects to generate practical data and experience on management and financing modalities, achieve climate benefits, and explore opportunities to leverage co-financing in order to maximize environmental benefits;
- On the issue of replenishment: underline the commitment to a replenishment of the Multilateral Fund of US\$490 million for the period 2009-2011 with the understanding that these funds will be utilized to enable developing countries to meet their obligations under the Protocol;
- On atmospheric measurements: Urge the governments to seek to ensure full coverage of the relevant data gathering programmes, in order to ensure that the atmosphere, including its stratospheric ozone and its interrelation with climatic change, is kept under continuous observation;
- On the Government of Qatar's initiatives: applaud the two initiatives announced by the Government of Qatar to establish: a monitoring station in Qatar for monitoring the ozone layer and the Earth's stratosphere in collaboration with NASA, and an Ozone Layer and Climate Change Research Center, within Qatar's Science and Technology Park and in collaboration with UNEP; and

• On this and future paperless meetings: recognize the outstanding contribution of the Government of Qatar in embracing and conducting, for the first time in the history of the UN, a very successful paperless meeting, a practice it is hoped will be extended to the conduct of future UN meetings; and express great appreciation to the Government of Qatar for the donation of the computers and paperless system, which will enable future UN meetings to be held in a paperless manner.

Decision on difficulties faced by Iraq: On Tuesday, Iraq introduced a draft decision regarding its difficulties in implementing the Protocol (UNEP/OzL.Pro.20/CRP.1). Iraq suggested that while it has acceded to the Vienna Convention and the Montreal Protocol, it requires technical and financial assistance to control the entry of ODS into Iraq and urged other countries to control exports. Many countries supported Iraq's request, while others wanted to consider it further. Delegates consulted informally throughout the week and on Thursday in plenary, and Iraq introduced a revised draft decision (UNEP/OzL.Pro.20/CRP.1/Rev.1) that included a request to the Executive Committee to show flexibility in considering project proposals. Delegates agreed to forward the decision to the high-level segment with minor amendments. This was adopted during the high-level segment on Thursday afternoon.

Final Decision: In the decision on the difficulties faced by Iraq (UNEP/OzL.Pro.20/CRP.1/Rev.2), the MOP:

- urges all parties to assist Iraq in controlling the export of ODS and ODS-based technologies into Iraq through the control of trade as per the provisions of the Montreal Protocol;
- requests the Executive Committee, when considering project proposals for Iraq to phase out ODS, to take into account the special situation of the party, which might necessitate phase-out of ODS in Annexes A and B beyond 2010 and flexibility in considering the project proposals; and
- requests implementing agencies to provide all possible assistance to Iraq in developing its country programme and national phase-out plans and in continuing its efforts to report to the Secretariat, as soon as possible, data on consumption of ODS in accordance with Montreal Protocol requirements.

Workshop for a dialogue on high-GWP substitutes for ODS: On Tuesday, the US introduced a proposal to hold a workshop on high-GWP substitutes for ODS (UNEP/OzL.Pro.20/CRP.7) and explained that its proposal included a request for TEAP to update its 2005 Supplement to the Special Report on the Ozone Layer and Climate, and convene a half-day open-ended dialogue on high-GWP substitutes to ODS at OEWG-29. The EU, supported by Australia, requested more time for discussion and delegates agreed to continue discussions informally.

On Thursday, the US confirmed that delegates had consulted informally and that a revised CRP (UNEP/OzL.Pro.20/CRP.7/Rev.1) was available. He noted that while the decision had not included language on the provision of funds for the workshop, that there was agreement that funding would be made available to ensure robust participation of Article 5 countries. China said this "gentlemen's agreement" must be included in the meeting report. Co-Chair Sørensen confirmed a budget of US\$150,000.

Delegates agreed to the proposal with minor editorial amendments and it was forwarded to the high-level segment and adopted on Thursday afternoon.

Final Decision: In the final decision on a workshop for a dialogue on high-GWP ODS (UNEP/OzL.Pro.20/CRP.7/Rev.2), the MOP agrees to, *inter alia*:

- request TEAP to update the Panel's 2005 Supplement to the Special Report on the Ozone Layer and Climate and to report on the status of substitutes for HCFCs, including a description of the various use patterns and potential market penetration of alternatives that have high GWPs;
- request the Ozone Secretariat to prepare a report that compiles current control measures, limits and information reporting requirements for compounds that are substitutes for ODS and that are addressed under international agreements relevant to climate change;
- convene a half-day open-ended dialogue on high-GWP substitutes to ODS among parties, including participation by the Assessment Panels, the Ozone Secretariat, and the Multilateral Fund Secretariat, and inviting the Fund's implementing agencies, other relevant multilateral environmental agreement secretariats and non-governmental organizations to discuss technical and policy issues related to high-GWP substitutes to ODS, with a particular focus on HCFCs;
- hold the dialogue on high-GWP substitutes to ODS preceding the OEWG-29 meeting; and
- further request the Secretariat to prepare, in cooperation with the Co-Chairs of the workshop, a summary report of the discussions that take place during the dialogue, and to report on the proceedings to OEWG-29.

CLOSING PLENARY

The closing plenary was held on Thursday evening. In the beginning of the session the preparatory segment reconvened and agreed to forward several outstanding decisions to the high-level segment. Co-Chair Beaumont thanked delegates for their hard work in the preparatory segment and closed the segment.

MOP-20 President Tóth then opened and chaired the high-level segment. He announced the meeting credentials and said the Bureau had approved 94 of the 143 participating parties. He urged parties to submit credentials at the next meeting.

Delegates considered the reports of the joint meeting (UNEP/OzL.Conv.8/L.1- UNEP/OzL.Pro.20/L.1, Add.1, Add.2, and Add.3) and adopted them after a number of minor amendments and statements of clarification.

Tanzania, for the African Group, complemented the Co-Chairs' outstanding leadership, reaffirmed its commitment to the Montreal Protocol and called for further financial support. China thanked the Co-Chairs and looked forward to another 20 years of success under the Montreal Protocol. Qatar thanked delegates for visiting his country and for achieving successful outcomes. President Tóth urged delegates to return their laptops to ensure that paperless meetings could continue into the future. He thanked the Secretariat, the Government of Qatar and participants for their hard work and looked forward to meeting everyone in Egypt in 2009. He gavelled the meeting to a close at 7:37 pm.

A BRIEF ANALYSIS OF THE MEETING

OZONE DEPLETION IN A DESERT SETTING

The city of Doha, Qatar, hosted the eighth meeting of the COP of the Vienna Convention (COP-8) and the 20th meeting of the MOP (MOP-20) of the Montreal Protocol. The desert city provides all the comforts of modern living, perhaps the most important being temperature control. Along with this luxury, comes the challenge of identifying ways to provide cooling and refrigeration for the city without depleting the ozone layer or contributing to ozone's sister issue, climate change.

Delegates in Doha were faced with a number of challenges, including ensuring that the accelerated HCFC phase-out was built into the triennial replenishment of the Multilateral Fund, and addressing the long-standing challenge of the destruction of ozone depleting substances (ODS) that are stored in banks. As MOP-20 demonstrated, in spite of the many successes of the Montreal Protocol there is still much work to be done to protect the ozone layer. This analysis will examine how these key issues were addressed at COP-8 and MOP-20 and how this will affect the road to MOP-21 in Sharm el-Sheikh, Egypt.

LESSONS FROM THE SOUQ

Last year at MOP-19, parties committed to an accelerated phase out of HCFCs, a chemical that was originally seen as a substitute for CFCs but proved to be ozone depleting substances with high global warming potential. In this context, it is also worth recalling that MOP-19 Decision XIX/6 on adjustments to the Montreal Protocol with regard to HCFCs was a carefully crafted compromise. Of utter importance to Article 5 (developing) countries was the reference to stable and sufficient funding to meet all agreed incremental costs to comply with the accelerated phase-out schedule. At MOP-20, participants had to ensure that this ambitious schedule could actually be met.

The Multilateral Fund has often been hailed as the key to the Montreal Protocol's success and is expected to play a similar role in the phase out of HCFCs. The replenishment for the period of 2009-2011 represents the first time that HCFC-related phase-out activities are included in the Multilateral Fund and, therefore, added a new dimension to the triennial debate, especially since they will consume the majority of the allocated funds. Negotiations on replenishment and especially HCFC-related activities started with the two different scenarios set out in the reports of the TEAP Replenishment Task Force: the baseline or lowest cost scenario, assuming high cost effectiveness and modest quantities phased out during the triennium; and the 2012 consumption level scenario, assuming low cost effectiveness and larger quantities to be phased out. Along these lines, the required range of funding in 2009-2011 replenishment for the baseline scenario is US\$338.7 - 387.2 million, and for the 2012 funding scenario is US \$510.6 - 629.8 million. Article 2 (donor) countries rejected the 2012 scenario on the basis that production and consumption of HCFCs is not likely to decrease until 2013, the year stipulated for the freeze of HCFC consumption; and it could lead indirectly to funding increased production, thereby creating a perverse incentive. On the other hand, Article 5 countries insisted that additional funding was required to control and lower the current rate of growth in those industries.

The scene was set for the negotiations on HCFC-related activities when one Article 2 country insisted that the "lowest amount in the baseline scenario was too high" and in turn Article 5 countries countered that the "highest of the 2012 consumption scenarios was too low." As one delegate put it, negotiations became comparable to trading camels in a souq, the traditional Arabian market in Doha, where bargaining is a long perfected art form. As Article 2 and Article 5 countries sat on opposite sides of the negotiating table, one side started off with an offer of under US\$320 million and the other countered with more than double, over US\$700 million. By the evening before the end of the negotiations, after a number of steps and offers, the gap had "narrowed" to US\$400 versus US\$580 million.

In the end it did not come much as a surprise when parties settled on a final replenishment right in the middle – US\$490 million. When deducting the carry-over from the past triennium and the interest accrued over that period, the total amount of new funds is US\$400 million, exactly the same as for the past triennium. Furthermore, the actual contributions of most donor countries will actually decline, due to the fixed-exchange-rate mechanism that has the US dollar at a lower level vis-à-vis other major donor currencies in comparison to the previous replenishment. A number of these parties had arrived in Doha with a mandate allowing for an increase in their contributions, but other parties noted that due to the current financial crisis an increase in contributions was not realistic. Delegates from both Article 5 and Article 2 countries agreed that the outcome of the MOP-20 replenishment negotiations met the stipulation of MOP-19 Decision XIX/6 to ensure stable and sufficient funding to comply with the accelerated HCFC phase-out schedule. Much will depend on the operationalization of HCFC-related activities throughout this replenishment period by the Executive Committee of the Multilateral Fund. Key issues that it will have to address include: second conversions, which are cases where plants have been converted from CFC production to HCFC production and now would seek funding for a further conversion; and the cut-off date determining which level of HCFC consumption and production will be eligible for funding.

A GENIE IN THE BOTTLE – THE DESTRUCTION OF ODS

While the discussion over the funding of HCFC phase-out took center stage at MOP-20, another key debate was also underway: the destruction of ODS. The TEAP, in collaboration with Intergovernmental Panel on Climate Change, estimates that there were approximately 5.2 million tons of ODS stored in global banks in 2002. Within those, 1 million tons are readily available for recovery and destruction.

Destruction mitigates the risk of ODS entering the atmosphere and depleting the ozone layer by breaking ODS down into inert components. Furthermore, since Article 5 countries are expected to completely phase out the production and consumption of CFCs, halons and CTC by 2010, the amount of ODS available for recovery and destruction will continue to grow. Add to that increasing quantities of HCFCs due to the accelerated phase-out and the issue becomes even more pressing.

The task at hand for MOP-20 delegates was to agree to undertake further studies on destruction and on initiating pilot projects including collection, storage and destruction. On the sidelines, and informally, however, delegates were considering

how to fund destruction. While phase-out of ODS falls within the mandate of the Multilateral Fund, there is no mandate to cover costs of destruction for ODS existing in stockpiles and banks. The Multilateral Fund, however, can fund studies and pilot projects, which MOP-20 tasked it to do.

According to several delegates, funding destruction would require an amendment to the Multilateral Fund and, consequently, greater replenishments in the future. While some speculated this was a logical progression for the Montreal Protocol, and Article 5 countries prefer the use of the Multilateral Fund as a primary funding mechanism because of its accessibility and track record, others suggested there may not be sufficient political will for a greater replenishment load. Some delegates cited references of parties to the potential use of the Clean Development Mechanism, or voluntary carbon markets, to fund destruction. Since the cost of destroying HCFCs is potentially very large, selling carbon credits for destruction of ODS with GWP may make it financially viable to operate destruction facilities on a commercial basis. In the decision on destruction of ODS, TEAP was asked to assess the relative economic costs and environmental benefits to both the ozone layer and the climate of destruction versus recycling, reclaiming and re-using such substances. Many delegates commented that destruction is the environmentally preferable option, because recycling, reclaiming and reusing ODS is likely to result in eventual release of ODS into the atmosphere.

Whatever funding mechanisms, or combination of mechanisms, are decided upon, synergies with other conventions will require greater consideration. The ties to UNFCCC and the Kyoto Protocol are clear, since a number of substances covered by the Montreal Protocol have great GWP and their environmentally-sound destruction counteracts both climate change and ozone depletion. In addition, cooperation with the Basel Convention will become more and more important as transboundary transport of ODS will be necessary because destruction facilities are expensive and cannot be constructed in each country. Unless the issue of destruction of ODS is addressed in a speedy and efficient manner through cooperation at all levels, many of the successes under the Protocol could be undone by significant amounts of ODS being released into the atmosphere through leakage.

ON THE DESERT HORIZON

As MOP-20 was gaveled to a close, many suggested that once again the Montreal Protocol lived up to its esteemed reputation as the most successful multilateral environmental agreement. Not only was this the first meeting to forego the usual flurry of white paper documents and go paperless, it also bid farewell to the last production facilities for CFCs in India and China, proving that parties are complying and phase-out schedules can be achieved. The next challenge will be realizing the same result for HCFCs. Now that HCFCs are included in the Multilateral Fund, parties have demonstrated their willingness to meet this challenge.

MOP-20 also laid important groundwork for future work by agreeing to study key issues such as destruction, campaign financing for CFC based MDIs, and examining the use of QPS in an effort to eventually phase out methyl-bromide.

The road ahead, however, remains long. After 21 years, the Montreal Protocol has successfully phased out a significant number of ODS and has effectively addressed production and consumption of others. However, fully mitigating risks to the ozone layer requires two complimentary approaches – phase-out and destruction. As the parties reach the phase-out dates, addressing destruction becomes imperative and the next challenge for the Protocol – one that delegates will tackle again in another desert oasis, Sharm el-Sheikh, Egypt. By then, hopefully, the Protocol will be a few steps closer to blending luxury and sensibility and finding ways to remain cool, without contributing to climate change or the ozone hole.

UPCOMING MEETINGS

INFORMAL WORKSHOP ON STAKEHOLDERS' INFORMATION NEEDS ON CHEMICALS IN ARTICLES/ PRODUCTS: This informal workshop will be held from 2-4 December 2008, in Bangkok, Thailand. For more information, contact the SAICM Secretariat: tel: +41-22-917-12-34; fax: +41-22-797-3460; e-mail: saicm@chemicals.unep.ch; internet: http://www.chem.unep.ch/unepsaicm/cheminprod_dec08/default.htm

EUROPE AND CENTRAL ASIA (ECA) CONTACT GROUP MEETING ON PROGRESS OF TPMP IMPLEMENTATION AND ASSESSMENT OF AWARENESS RAISING ACTIVITIES: This meeting will be held in Chisinau, Moldova, from 2-4 December 2008. For more information, contact UNEP OzonAction Branch: tel: +33-1-44-37 1450; fax: +33-1-44-37-1474; e-mail: ozonaction@unep.fr; internet: <http://www.unep.fr/ozonaction/events/2008%20events.pdf>

STOCKHOLM CONVENTION EXPERT MEETING TO FURTHER DEVELOP THE STANDARDIZED TOOLKIT FOR IDENTIFICATION AND QUANTIFICATION OF DIOXIN AND FURAN RELEASES: This expert meeting will be held from 3-4 December 2008, in Geneva, Switzerland, to prepare proposals for Stockholm Convention COP 4 for revising and updating the Toolkit. For more information, contact: Stockholm Convention Secretariat; tel: +41-22-917-8729; fax: +41-22-917-8098; e-mail: ssc@pops.int; internet: <http://www.pops.int>

FIRST MEETING OF ODS CUSTOMS ENFORCEMENT NETWORK MEETING FOR LATIN AMERICA: This meeting will be held in Panama from 9-11 December 2008. For more information, contact UNEP OzonAction Branch: tel: +33-1-44-37-1450; fax: +33-1-44-37-1474; e-mail: ozonaction@unep.fr; internet: <http://www.unep.fr/ozonaction/events/2008%20events.pdf>

FOURTEENTH CONFERENCE OF THE PARTIES TO THE UNFCCC AND FOURTH MEETING OF THE PARTIES TO THE KYOTO PROTOCOL: This meeting will convene in Poznań, Poland, from 1-12 December 2008. The conference will also include the 29th sessions of the Convention's two subsidiary bodies – Subsidiary Body for Scientific and Technological Advice (SBSTA) and Subsidiary Body for Implementation (SBI) – as well as the 4th session of the *Ad hoc* Working Group on Long Term Cooperative Action (AWG-LCA) and the resumed 6th session of the *Ad Hoc* Working Group on Further Commitments for Annex I Parties

under the Kyoto Protocol (AWG-KP). For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://www.unfccc.int>

EASTERN EUROPEAN BRIEFING ON HCFC PHASE-OUT: This briefing will be held in Belgrade in late March 2009, as a joint initiative of United Nations Environment Programme-Division of Technology, Environment and Economics (UNEP-DTIE) and the Serbian Ministry of Environment. The purpose of the meeting is to gain knowledge of HCFC consumption patterns for English speaking countries of the Eastern European Central Asian network. It will focus on policy options and legislation supporting HCFC phase-out. For more information, contact: Dunja Dobric, Ministry of Environment and Spatial Planning, Serbia; tel: +38-164-816-6357; fax: +38-111-313-1394; e-mail: dunja.dobric@ekoserb.sr.gov.yu; internet: <http://www.ekoserb.sr.gov.yu>

SEVENTH SESSION OF THE AWG-KP AND FIFTH SESSION OF THE AWG-LCA: The 5th session of the *Ad hoc* Working Group on Long Term Cooperative Action (AWG-LCA) and the 7th session of the *Ad Hoc* Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) will meet from 29 March - 8 April 2009 in Bonn, Germany. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://www.unfccc.int>

FOURTH MEETING OF THE CONFERENCE OF THE PARTIES TO THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS: COP 4 will be held from 4-8 May 2009, in Geneva, Switzerland. The meeting will address a non-compliance mechanism, synergies between the Rotterdam, Basel and Stockholm Conventions, and recommendations from the POPs Review Committee to schedule further chemicals under the Convention. For more information, contact: Stockholm Convention Secretariat; tel: +41-22-917-8729; fax: +41-22-917-8098; e-mail: ssc@pops.int; internet: <http://www.pops.int/>

SECOND SESSION OF THE INTERNATIONAL CONFERENCE ON CHEMICALS MANAGEMENT (ICCM-2): This meeting will take place from 11-15 May 2009 in Geneva, Switzerland. For more information, contact: SAICM Secretariat; tel: +41-22-917-8532; fax: +41-22-797-3460; e-mail: saicm@chemicals.unep.ch; internet: <http://www.chem.unep.ch/saicm/iccm/ICCM2/iccm2.htm>

UNFCCC SUBSIDIARY BODIES MEETINGS: The 30th sessions of the UNFCCC Convention subsidiary bodies – SBSTA and SBI – and the 6th session of the *Ad hoc* Working Group on Long Term Cooperative Action (AWG-LCA) and the 8th session of the *Ad Hoc* Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) will meet from 1-12 June 2009 in Bonn, Germany. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://www.unfccc.int>

42ND MEETING OF THE IMPLEMENTATION COMMITTEE UNDER THE NON-COMPLIANCE PROCEDURE FOR THE MONTREAL PROTOCOL:

This meeting will be held from 15-17 July 2009, in Geneva, Switzerland. For more information, contact: Ozone Secretariat; tel: +254-20-762-3851/3611; fax: +254-20-762-4691/92/93 e-mail: ozoneinfo@unep.org; internet: <http://ozone.unep.org>

WORKSHOP FOR A DIALOGUE ON HIGH-GWP ALTERNATIVES FOR OZONE DEPLETING SUBSTANCES:

This workshop will be held on 19 July 2009, one day before the twenty-ninth Open-ended Working Group of the parties to the Montreal Protocol (OEWG 29) at a venue to be decided by the Ozone Secretariat. This meeting will focus on technical and policy issues related to ODS alternatives and exchanging views on the best ways of using the experience of the Montreal Protocol for addressing the impact of HFCs and maximizing the ozone and climate benefits of the HCFCs early phase-out. For more information, contact: Ozone Secretariat; tel: +254-20-762-3851/3611; fax: +254-20-762-4691/92/93 e-mail: ozoneinfo@unep.org; internet: <http://ozone.unep.org>

29TH MEETING OF THE OPEN-ENDED WORKING GROUP OF THE PARTIES TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER:

This meeting will be held from 20-24 July 2009, in Geneva, Switzerland. For more information, contact: Ozone Secretariat; tel: +254-20-762-3851/3611; fax: +254-20-762-4691/92/93 e-mail: ozoneinfo@unep.org; internet: <http://ozone.unep.org>

MONTREAL PROTOCOL MOP-21: The 21st Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer will take place in Sharm el Sheikh, Egypt, at a date to be determined. For more information, contact: Ozone Secretariat; tel: +254-20-762-3851/3611; fax: +254-20-762-4691/92/93 e-mail: ozoneinfo@unep.org; internet: <http://ozone.unep.org>

GLOSSARY

CFC	Chlorofluorocarbons
CTC	Carbon tetrachloride
CUE	Critical-use exemption
CUN	Critical-use nomination
GWP	Global warming potential
HCFC	Hydrochlorofluorocarbons
HFC	Hydrofluorocarbons
MTOC	Medical Technical Options Committee
MBTOC	Methyl Bromide Technical Options Committee
MDI	Metered-dose inhaler
ODS	Ozone depleting substances
OEWG	Open-ended Working Group
ORM	Ozone Research Managers
QPS	Quarantine and pre-shipment
TEAP	Technology and Economic Assessment Panel
WMO	World Meteorological Organization
WMO-GAW	World Meteorological Organization-Global Atmosphere Watch