

TWENTY-SECOND MEETING OF THE PARTIES TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER: 8–12 NOVEMBER 2010

The twenty-second Meeting of the Parties to the Montreal Protocol convenes from 8-12 November 2010, in Bangkok, Thailand. The preparatory segment will take place from Monday to Wednesday, and the high-level segment will convene on Thursday and Friday. During the meeting delegates are expected to consider decisions on a range of issues, *inter alia*: environmentally sound management of banks of ozone-depleting substances (ODS) and ODS destruction; terms of reference for the replenishment and for an evaluation of the financial mechanism; proposals to amend the Protocol to include hydrofluorocarbons (HFCs); essential uses; quarantine and pre-shipment (QPS) issues; critical use nominations; polyols; and hydrochlorofluorocarbon (HCFC) supply to ships.

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 196 parties.

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 ODS use before taking on commitments. The Protocol currently has 196 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, 195 parties have ratified the London Amendment. MOP-2 also established the Multilateral Fund (MLF), 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 MLF Secretariat. The Fund is replenished every three years, and has received pledges of over US\$2.8 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 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, 192 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 ban trade in methyl bromide with non-parties to the Copenhagen Amendment. To date, 181 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, 165 parties have ratified the Beijing Amendment.

MOP-15 AND FIRST EXTRAORDINARY MOP: 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 were available. Delegates could not reach agreement and took the unprecedented step of calling for an “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 on 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 AND EX-MOP2: MOP-16 took place in Prague, the Czech Republic, in 2004. Work on methyl bromide exemptions for 2006 was not completed and parties decided to hold a second ExMOP. ExMOP-2 was held in July 2005, in Montreal, Canada. Parties agreed to supplementary levels of critical use exemptions (CUEs) for 2006. 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 (COP-7) 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 included a US\$470.4 million replenishment of the MLF with for 2006-2008, and agreement on 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, *inter alia*: future work following the Ozone Secretariat’s workshop on the Special Report of the Intergovernmental Panel on Climate Change and the Technical and Economic Assessment Panel (TEAP); difficulties faced by some Article 5 parties manufacturing CFC-based metered dose inhalers (MDIs); treatment of stockpiled ODS relative to compliance; and a feasibility study on developing a system for monitoring the transboundary movement of ODS.

MOP-19: MOP-19 took place in Montreal, Canada in 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.

COP-8/MOP-20: MOP-20 was held jointly with COP-8 of the Vienna Convention in Doha, Qatar in November 2008. Parties agreed to replenish the MLF with US\$490 million for 2009-2011 and adopted other decisions concerning, *inter alia*: the environmentally sound disposal of ODS; approval

of 2009 and 2010 CUEs for methyl bromide; and compliance and reporting issues. This meeting was also the Protocol’s first paperless meeting.

MOP 21: MOP-21 took place in Port Ghalib, Egypt, from 4-8 November 2009 and adopted decisions on: alternatives to HCFCs; institutional strengthening; essential uses; environmentally sound management of banks of ODS; methyl bromide; budget; and data and compliance issues. Delegates considered a proposal to amend the Montreal Protocol to include HFCs, but this was not agreed.

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. Article 5 parties were required to phase out production and consumption of hydrobromochlorofluorocarbons by 1996 and bromochloromethane by 2002. Article 5 parties must still phase out: production and consumption of CFCs, halons and CTC by 2010; and methyl chloroform and methyl bromide by 2015. Under the accelerated phase-out of HCFC adopted at MOP-19, HCFC production and consumption by Article 2 countries was to be frozen in 2004 and phased-out by 2020, while in Article 5 parties, HCFC production and consumption is to be frozen by 2013 and phased-out by 2030 (with interim targets prior to those dates, starting in 2015 for Article 5 parties). There are exemptions to these phase-outs to allow for certain uses lacking feasible alternatives.

INTERSESSIONAL HIGHLIGHTS

EXECUTIVE COMMITTEE: The Executive Committee of the MLF held its sixty-first meeting from 5-9 July 2010 in Montreal, Canada. The Committee approved investment projects and work programme activities with a value of approximately US\$21.4 million, plus US\$1.6 million in support costs for bilateral/implementing agencies. It also approved the first tranches of HCFC phase-out management plans (HPMPs) for Cambodia, Croatia and Ghana.

OPEN-ENDED WORKING GROUP: The thirtieth meeting of the Montreal Protocol’s Open-ended Working Group (OEWG-30) convened in Geneva, Switzerland from 15-18 June 2010. Parties discussed, among other things, issues related to: the financial mechanism; HCFCs and their alternatives; polyols; and environmentally sound management of banks of ODS. Parties also considered issues concerning exemptions for ODS uses, including: essential- and critical-use exemptions for 2011 and 2012; transitions to CFC-free MDIs; laboratory and analytical uses of ODS; and use of ODS as process agents. OEWG-30 also considered two proposals, from the Federated States of Micronesia and from the US, Canada and Mexico, for amendments to the Montreal Protocol to control HFCs.

TEAP AND TOCs: Several of the Technical Options Committees (TOCs) met between May and October 2010 to further their work in the lead-up to MOP-22. The work of the TOCs and the Task Force are included in the TEAP’s 2010 reports, which will be considered at MOP-22.

IMPLEMENTATION COMMITTEE: The forty-fifth meeting of the Implementation Committee under the Non-Compliance Procedure convened in Bangkok, Thailand, from 4-5 November 2010. The Implementation Committee considered information provided by the Secretariat of the MLF on relevant decisions of the Executive Committee of the Fund and on activities carried out by implementing agencies and non-compliance related issues. Its recommendations will be considered at MOP-22.

MOP-22 HIGHLIGHTS: MONDAY, 8 NOVEMBER 2010

The preparatory segment of the twenty-second Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (MOP-22) opened in Bangkok, Thailand, on Monday, 8 November 2010.

In the morning, delegates agreed on the organization of work and initiated discussions on issues related to the financial mechanism, status of HCFCs blended in polyols and environmentally sound management (ESM) of banks of ODS.

During the afternoon, delegates began consideration of the proposals to amend the Montreal Protocol to include HFCs.

OPENING OF THE PREPARATORY SEGMENT

Prepat Vanapitaksa, Director General, Department of Industrial Works (Thailand), opened MOP-22 and called for stronger cooperation between parties, industry, civil society and business to enhance the implementation of the Protocol.

Lauding developing countries for their efforts to meet the 2010 target by phasing out a majority of the substances under the Protocol, Marco González, Executive Secretary, Ozone Secretariat, suggested that the focus of parties shift to proposals for the phase-out of HCFCs, methyl bromide and methyl chloroform. He also highlighted the need to resolve outstanding issues on, *inter alia*: the evaluation of the financial mechanism; the phase-out of HFC-23 as a by-product of HCFC-22; synergies with other bodies including the International Civil Aviation Organization (ICAO), International Treaty on Plant Genetic Resources (ITPGR) and the UN Framework Convention on Climate Change (UNFCCC); and critical use exemptions, using guidance from the TEAP.

ORGANIZATIONAL MATTERS

Preparatory Segment Co-Chair Martin Sirois (Canada) introduced the provisional agenda (UNEP/OzL.Pro.22/1). Stating HFCs are not ODS, INDIA, supported by CHINA and BRAZIL but opposed by the US, proposed removing the agenda item on the phase-out of HFC-23 as a by-product of HCFC-22 production. The agenda was adopted with an amendment proposed by KAZAKHSTAN, to add discussion on ratification of the amendments. Co-Chair Sirois outlined, and participants agreed to, the proposed organization of work.

CONSIDERATION OF MEMBERSHIP OF MONTREAL PROTOCOL BODIES FOR 2011

Co-chairs of the assessment panels: Co-Chair Freznel Díaz (Venezuela) introduced draft decisions on new co-chairs of the TEAP (UNEP/OzL.Pro.22/3, XXII/[A]) and Environmental Effects Assessment Panel (EEAP) (UNEP/OzL.Pro.22/3, XXII/[B]). The US, supported by the UK and COLOMBIA, proposed merging the proposals submitted by COLOMBIA, the UK and the US on nominations to the TEAP and the EEAP, with COLOMBIA noting that some elements of their proposal may

require separate discussion.

FINANCIAL REPORTS OF THE TRUST FUNDS FOR THE VIENNA CONVENTION AND THE MONTREAL PROTOCOL AND BUDGETS OF THE MONTREAL PROTOCOL

Co-Chair Díaz introduced the documents UNEP/OzL.Pro.22/4 and Add 1, noting that the document contains a provision for upgrading the post of the Executive Secretary. Delegates then mandated a Budget Committee to begin work.

ISSUES RELATED TO THE FINANCIAL MECHANISM UNDER ARTICLE 10 OF THE MONTREAL PROTOCOL

Terms of Reference (ToR) for an evaluation of the financial mechanism and ToR for a study on the 2012–2014 replenishment of the Multilateral Fund (MLF): Delegates heard a report on the status of discussion on the TORs and the contact group Co-Chair Paul Krajnik (Austria) requested additional time to complete discussions. A contact group on the financial mechanism was established, with CHINA reiterating that HFCs should not be discussed.

Assessment of the HCFC guidelines: Contact Group Co-Chair Krajnik introduced the draft decision (UNEP/OzL.Pro.22/3, XXII[E]) on Executive Committee of the MLF's (Excom) HCFC guidelines and the financing of low global warming potential (GWP) alternatives. The US suggested further discussion on this issue in a contact group. Brazil stressed that the issue of HFCs should not be dealt with by this group.

STATUS OF HCFCs BLENDED IN POLYOLS AS CONTROLLED SUBSTANCES UNDER THE MONTREAL PROTOCOL

Co-Chair Díaz introduced draft decision UNEP/OzL.Pro.22/3, XXII/[F], proposed by India, on the status of HCFCs preblended in polyols as controlled substances, explaining that the ExCom had agreed on funding for phasing out these HCFCs. INDIA and DENMARK, as co-chairs of the OEWG-30 contact group, clarified that while the ExCom had resolved questions of funding, definitional issues still remained. The US proposed meeting with India and interested parties to resolve outstanding issues.

ENVIRONMENTALLY SOUND MANAGEMENT (ESM) OF ODS BANKS

Technologies and related facilities for the destruction of ODS: AUSTRALIA reported on the OEWG-30 consolidation of proposals by Australia and Nigeria, draft decision UNEP/OzL.Pro.22/3, XXII/[I], and a contact group was established for further discussion.

Environmentally sound management of ODS banks: AUSTRALIA introduced a consolidated draft decision (UNEP/OzL.Pro.22/3, XXII/[L]) of proposals by the EU and Mauritius. Co-Chair Díaz established a contact group on the issue.

PROPOSED AMENDMENTS TO THE MONTREAL PROTOCOL AND PHASE-OUT OF HFC-23 AS A BY-PRODUCT EMISSION OF THE PRODUCTION OF HCFC-22

Two draft decisions on amendments to the Montreal Protocol to address HFCs were presented by the US, on behalf of Canada and Mexico (UNEP/OzL.Pro.22/5), and the FEDERATED STATES OF MICRONESIA (FSM) (UNEP/OzL.Pro.22/6).

Emphasizing that HFCs are potent greenhouse gases, the US stressed that including HFCs in the Montreal Protocol would build on efforts of the UNFCCC to address climate change and of the ExCom to provide incentives for low-GWP alternatives to ODS. MEXICO added that the amendment aims to assist parties with the requisite technical, financial and institutional support for developing alternatives to HFCs. The FSM underscored that parties have a moral and legal responsibility to address HFCs.

On behalf of Canada and Mexico, the US also introduced a draft decision on the phase-out of HFC-23 as a by-product of HCFC-22 (UNEP/OzL.Pro.22/3, XXII/[M]). He explained the draft decision requests the ExCom to update information on HCFC-22 production facilities and further efforts to implement projects to mitigate HFC-23 emissions, and asks the TEAP and Scientific Assessment Panel (SAP) to study the costs and benefits of HCFC-22 by-product control. The US requested that a formal contact group be established.

In the ensuing discussion diverse views were expressed. CUBA noted that HFCs are under the mandate of the UNFCCC, and called on delegates not to prejudge decisions on this issue that may be taken at UNFCCC COP 16 in Cancún later this year. INDIA said that discussion of this issue was an attempt to deviate from the Montreal Protocol's mandate, noting its view that the proposals were recommending "an amalgamation of the Vienna Convention and the UNFCCC." Noting that the resources for the Montreal Protocol are limited, ARGENTINA objected to the proposed amendment. BRAZIL, with CHINA, called on parties to consider the proposals submitted in informal consultations only, as HFCs are already covered under the UNFCCC. VENEZUELA objected to the initiation of a contact group. Others supported the establishment of a contact group including SWITZERLAND, JAPAN, AUSTRALIA, GABON, ARMENIA, INDONESIA, CAMEROON and the EU.

General support for the proposals was expressed by the FORMER YUGOSLAV REPUBLIC OF MACEDONIA, the PHILIPPINES, KENYA, Tuvalu, on behalf of PACIFIC ISLAND COUNTRIES, GREENPEACE and EIA. CANADA recalled the Montreal Protocol's history of addressing HFCs, and suggested discussing the proposal by Brazil and other Latin American countries on the ExCom's HCFC guidelines in conjunction with the amendment proposals.

ISSUES RELATED TO EXEMPTIONS FROM ARTICLE 2 OF THE MONTREAL PROTOCOL

Nominations for critical use exemptions for 2011 and 2012: The TEAP presented their final recommendations on critical use exemptions (CUEs), proposed in the Methyl Bromide Technical Options Committee (MBTOC) workplan for 2011 and quarantine and pre-shipment (QPS). They discussed an overview of the final recommendations of the methyl bromide pre-plant soil use; and structural and commodity critical use nominations (CUNs) in 2010.

In the ensuing discussion, TEAP responded to inquiries on, *inter alia*: funding for pilot projects in Article 5 countries on alternatives to methyl bromide; efficacy of methyl iodide in treating high-moisture content dates and other post-harvest commodities; and guidance to the TEAP on emergency uses of methyl bromide, with reference to a recent application for strawberries in Canada.

Co-Chair Díaz then introduced the nominations for critical use exemptions for methyl bromide use as proposed by the TEAP MBTOC. CANADA, highlighting progress by parties on reducing methyl bromide use, introduced a conference room paper (CRP) on these nominations for methyl bromide production and consumption CUEs for 2011-2012 (UNEP/OzL.Pro.22/CRP.1).

The US outlined its efforts to reduce methyl bromide use, questioned the process by which the MBTOC evaluated the requests for CUEs, and called for increased transparency in MBTOC's review process.

In response to queries from Cuba and the EU on how methyl bromide stockpiles are considered in evaluations of CUE requests from parties, the TEAP clarified that it does not consider stockpiles in its assessments and Executive Secretary González emphasized that parties are responsible for determining how stockpiles are managed. The EU and CUBA agreed to have bilateral discussions on the issue of stockpiles.

The Natural Resources Defense Council (NRDC) noted that CUEs are sometimes reduced when countries have large stockpiles, and encouraged the reduction of the US's exemption accordingly. He also suggested the US establish a date by which it would end its requests for exemptions.

Quarantine and pre-shipment (QPS) uses of methyl bromide: New Zealand reported on the work of an OEWG-30 contact group considering QPS uses of methyl bromide included in draft decision XXII/[L], UNEP/OzL.Pro.22/3. She noted that a proposal submitted by the EU had been bracketed and submitted to MOP-22 for further deliberation. Co-Chair Díaz suggested, and delegates agreed, that a contact group on QPS finalize this matter.

Nominations for essential use exemptions for 2011-12: IRAN and INDIA discussed their phase-outs of CFCs, and delegates considered Bangladesh's nomination of CFCs for MDIs. The TEAP reported its recommendation of 37 tonnes of CFCs for MDI, requesting that Bangladesh consider the use of alternatives in the manufacture of some pharmaceutical products. BANGLADESH requested that the TEAP reconsider its nomination. Executive Secretary González reported an emergency use exemption of CFC-113 called for by the Dominican Republic.

Laboratory and analytical use exemptions: Co-Chair Sirois outlined that TEAP had recommended that global exemptions for 15 laboratory and analytical uses with alternatives be eliminated, and three uses be exempted. CHINA noted that since no alternative technologies were available in developing countries, exemptions should be considered and a grace period required. Sirois noted that TEAP would look at laboratory and analytical uses in Article 5 parties and produce a report.

Issues relating to the use of ODS as process agents: Co-Chair Sirois noted that OEWG-30 considered the TEAP's recommendation on possible deletions of some uses from tables of approved process agent uses. CANADA introduced a draft decision on the use of controlled substances as process agents (UNEP/OzL.Pro.22/CRP.2), which, *inter alia*, requested TEAP to report in 2013, and every second year thereafter, on progress made in reducing process agent uses, and to make any additional recommendations to parties on further actions to reduce process agent uses or their emissions.

CONTACT GROUPS

Financial Mechanism: The contact group on the financial mechanism, co-chaired by Paul Krajnik, Austria, and David Bola Omotosho (Nigeria) met on Monday evening and agreed to first address the ToR on the evaluation of the MLF on Tuesday.

ODS Destruction: Co-chaired by Annie Gabriel (Australia) and Javier Ernesto Camargo Cubillos (Colombia), the contact group met for a preliminary reading of the decision on destruction technologies with regard to ODS, and highlighted, *inter alia*, the need to define "criteria" to quantify ODS to be destroyed.

IN THE CORRIDORS

As delegates entered the first day of MOP-22 at the UN Center in Bangkok, conversations outside plenary halls were lively, with some participants discussing whether progress might be made on HFCs at this round of talks. While many were circumspect about their predictions for the issue, others detected a gain in momentum from the previous discussions in Geneva at the OEWG-30. Citing the potential for the formation of a formal contact group to consider HFCs, they noted that although agreement on amending the Protocol at MOP-22 remains unlikely, one said "incremental steps" may be taken in addressing HFCs.

MOP-22 HIGHLIGHTS: TUESDAY, 9 NOVEMBER 2010

The preparatory segment of MOP-22 convened for its second day in Bangkok, Thailand, on Tuesday, 9 November 2010.

In the morning, delegates considered the special situation of Haiti and compliance and reporting issues. The co-chairs also led delegates through a review of the agenda and decisions to be forwarded to the high-level segment. Plenary was adjourned mid-morning to allow contact groups on QPS, ODS destruction, the ToR for the evaluation of the financial mechanism, as well as the Budget Committee, to convene throughout the day.

Plenary reconvened in the evening and heard updates from contact and informal groups.

SPECIAL SITUATION OF HAITI

Co-Chair Díaz recalled that at the OEWG-30, Grenada and Saint Lucia had proposed a draft decision calling all parties to assist Haiti in their control of ODS (UNEP/OzL.Pro.22/3, XXII[O]).

The US supported the intent of the proposal, but said it would consult with concerned parties on some issues.

During the evening plenary, the US and GRENADA reported progress in these discussions and said the revised decision would be circulated on Wednesday.

COMPLIANCE AND DATA-REPORTING ISSUES

Treatment of stockpiled ODS relative to compliance:

Co-Chair Sirois recalled that OEWG-30 decided to forward to MOP-22 a draft decision on the treatment of stockpile ODS relative to compliance (UNEP/OzL.Pro.22/3, XXII[P]).

The EU reported on consultations held with concerned parties on the draft decision and said it had produced a revised draft, which will be released as a CRP. The US said the revised draft was closer to something they could support. JORDAN said that the draft decision should include the provision of finance and technologies to Article 5 countries for addressing the issue of ODS stockpiles. Co-Chair Sirois suggested, and parties agreed, to consult informally on the draft decision.

Presentation on and consideration of the work and recommended decisions of the implementation committee:

Co-Chair Díaz deferred discussion of compliance and reporting

issues considered by the Implementation Committee (ImpCom), noting that the documents still needed to be translated before substantive discussions could be undertaken.

During the evening plenary, Elizabeth Munzert (Germany), on behalf of the ImpCom President Ezzat Lewis (Egypt), presented the decisions of the 45th meeting of the ImpCom under the Non-Compliance Procedure (UNEP/OzL.Pro.22/CRP.4), noting a full report of the meeting would be available later in the week. She highlighted the high rate of reporting, with 191 of 196 countries reporting production and consumption data for 2009.

Delegates agreed to forward the draft decision to the high-level segment for consideration.

MEMBERSHIP OF MONTREAL PROTOCOL BODIES FOR 2011

The US presented a consolidated proposal thanking outgoing co-chairs José Pons Pons and Jan van der Leun of the TEAP and EEAP and senior expert Thomas Morehouse of the TEAP, and proposing new appointees Nigel Paul, Marta Pizano and Bella Moranion for these positions (UNEP/OzL.Pro.22/CRP.5). The decision also requests the TEAP to consider the ToRs for the nomination of experts, including a reassessment of term limits. Delegates agreed to forward the decisions to the high-level segment.

During the evening plenary, noting many positions for the Protocol bodies are open and only one nomination had been received, Co-Chair Sirois invited parties to submit nominations promptly.

ISSUES RELATED TO EXEMPTIONS FROM ARTICLE 2 OF THE PROTOCOL

Nominations for essential use exemptions: On essential use nominations, the RUSSIAN FEDERATION presented a draft decision for an exemption for CFC-113 for aerospace applications (UNEP/OzL.Pro.22/CRP.6). During the evening plenary, CHINA said that they were close to an agreement on the proposal. The EU noted their consultations with the Russian Federation were fruitful, but that they would need more time to reach agreement.

Laboratory and analytical uses of ODS (decision XXI/6):

No decision was proposed on this issue and delegates agreed that nothing would be forwarded to the high-level segment.

PROPOSED AMENDMENTS TO THE MONTREAL PROTOCOL AND PHASE-OUT OF HFC-23 AS A BY-PRODUCT EMISSION OF THE PRODUCTION OF HCFC-22

After Monday's discussion, the Co-Chairs proposed a way forward for consideration of the proposed amendments to the Montreal Protocol (UNEP/OzL.Pro.22/6 and UNEP/OzL.Pro.22/5) and the phase-out of HFC-23 as a by-product of HCFC-22 (draft decision UNEP/OzL.Pro.22/3, XXII/[M]). Delegates agreed to convene an informal contact group to consider these issues, as well as the assessment of the ExCom's HCFC guidelines (draft decision UNEP/OzL.Pro.22/3, XXII/[E]).

OTHER MATTERS

The US presented a draft decision, also on behalf of Canada and Australia, on progress by ICAO in the transition out of halon use in civil aviation (UNEP/OzL.Pro.22/CRP.7). He explained the draft decision appreciated efforts by ICAO in transitioning away from halon use and for providing a forum for identifying and adopting alternatives to halons. He also noted the proposal, *inter alia*, asked parties to support mandatory dates for transitioning out of halons, and asked the TEAP and Halon Technical Options Committee to continue to engage with ICAO counterparts on this issue. The EU said it needed some time to compare the proposal with EU legislation on halon phase-outs, and agreed to consult with the US on this issue.

CONTACT GROUPS

Financial Mechanism: The contact group on the ToR for an evaluation of the financial mechanism and replenishment of the MLF, co-chaired by Paul Krajnik (Austria) and David Bola Omotosho (Nigeria), met on Tuesday afternoon. As agreed on Monday, the group began with work on the ToR for the evaluation, deliberating on the text of the draft decision (UNEP/OzL.Pro.22/3, XXII/[C]), to narrow the scope of the evaluation and clarify the tasks that would be required of the consultant.

The contact group addressed sub-sectors A and B of the Annex to the draft decision, on the preamble and purpose of the evaluation, along with policy issues and the analysis of results. In-depth discussions were held on how to conduct the evaluations for all stages of the ExCom and MLF processes, from the preparation and submission of projects, to review of projects and results by the Secretariat. Delegates considered issues that should be addressed in the evaluation, including, *inter alia*: diverse indicators for the evaluation; ODS phase-out; project timing; additional benefits; and climate effects.

With outstanding issues and text in square brackets remaining at the end of the contact group's allotted time, the group agreed to reconvene to continue their work.

ODS Destruction: The contact group on ODS destruction, co-chaired by Annie Gabriel (Australia) and Javier Ernesto Camargo Cubillos (Colombia), met to consider a draft decision on destruction technologies with regard to ODS (UNEP/OzL.Pro.22/3, XXII/[I]). The group discussed a verbal proposal from one party that calls on the TEAP to develop criteria for verification of the destruction of ODS, which was welcomed by TEAP. Delegates also debated including these criteria, when available, in the Montreal Protocol Handbook, eventually agreeing to request the TEAP to, *inter alia*, "develop criteria that should be used to verify the destruction of ODS in facilities that use appropriate ODS destruction technologies, taking into account the recommended destruction and removal efficiencies

for the relevant substance." The reference to the inclusion of the verification criteria in the Handbook was retained in the chapeau of the paragraph. On a preambular reference to the Handbook's code of housekeeping regarding ODS in destruction facilities, delegates agreed to note that the code does not provide a framework that can be used for verification.

QPS uses of methyl bromide: Co-chaired by Robyn Washbourne (New Zealand) and Tri Widayati (Indonesia), the contact group discussed a revised draft decision, proposed by the EU on methyl bromide use for QPS (UNEP/OzL.Pro.22/CRP.3). Several parties expressed their concern about a provision in the proposal that requests all parties to implement monitoring procedures to gather available data about the sectors that use methyl bromide for QPS purposes, and to provide those data to the Ozone Secretariat by 31 January 2011. Some questioned the purpose of such a request, as well as the precise data requested. Several parties also disagreed with the proposal for the TEAP to assess the data on methyl bromide use for QPS purposes on a party-by-party basis, noting that this is not the TEAP's mandate. The EU explained that it intended to establish a process in which the TEAP could enter into a dialogue with parties to acquire available data for the assessment. A pre-drafting group was established to conduct informal consultations.

Budget Committee: The budget committee, chaired by Ives Enrique Gómez Salas (Mexico), met on Tuesday, and discussed the Secretariat proposal to upgrade the post of the Executive Secretary to Assistant Secretary General (ASG) level. Delegates considered including this upgrade in a footnote in the revised version of the approved 2010 and proposed 2011-2012 budgets of the Trust Fund for the Protocol (UNEP/OzL.Pro.22/4). While discussing options for retaining the Executive Secretary, some delegates ruled out the possibility of taking him on under a consultant's contract, citing the need for the continuity of strong leadership of the Protocol. One party registered opposition to upgrading the post to the ASG level, but agreed to further negotiation on this matter, based on the Secretariat's text. The Committee will continue work on Wednesday.

IN THE CORRIDORS

As negotiations continued predominantly in contact groups on Tuesday, some MOP-22 participants were adversely impacted by heavy use of refrigerants. In one particularly cold meeting room, some delegates braced themselves against the cold, committing to "negotiate until our dying breaths" to come to consensus on issues related to the evaluation of the Multilateral Fund.

With UN rules on a mandatory retirement age poised to affect the leadership of the Montreal Protocol, parties discussed possible ways of keeping the current Executive Secretary at the helm. However, the option of upgrading the position to the ASG level was not supported by all parties, with rumors in the halls suggesting that opponents would prefer to avoid setting such a precedent. Several predicted the need to "get creative" with perhaps a time-limited upgrade to ASG, extendable by a decision of the parties.

On HFCs, many participants remarked on the informative nature of the US side event on its proposal to include HFCs in the Montreal Protocol, as well as some surprising attendees representing parties that have traditionally been opposed to the proposal. Others were hedging their bets on any progress, and looking forward to the initiation of a contact group on Low-GWP alternatives to HCFCs (HFCs – by another name) on Wednesday.

MOP-22 HIGHLIGHTS: WEDNESDAY, 10 NOVEMBER 2010

The preparatory segment of Montreal Protocol MOP-22 convened for its third day in Bangkok, Thailand, on Wednesday, 10 November 2010.

In the morning, delegates participated in contact groups on the ToR for the evaluation of the financial mechanism and the ToR for the MLF replenishment study, and on ODS destruction.

During the afternoon, the Budget Committee, the contact group on QPS uses of methyl bromide and an informal group on low-GWP alternatives to ODS convened.

Plenary reconvened in the evening, where delegates agreed to forward several decisions to the high-level segment.

CONTACT GROUPS

Financial mechanism: This contact group, co-chaired by Paul Krajnik (Austria) and David Bola Omotosho (Nigeria), began with an open session on deliberations on the draft decision on MLF replenishment (UNEP/OzL.Pro.22/3, XXII/[D]), and then continued work in a closed contact group on the draft decision on the financial mechanism evaluation (UNEP/OzL.Pro.22/3, XXII/[C]).

On the ToR for replenishment of the MLF, noting that the decision had been discussed in detail at OEWG-30 in Geneva, discussions focused on the text remaining in square brackets.

Clarifying wording was suggested for a paragraph asking the TEAP to provide updated figures needed to maintain stable and sufficient funding for the MLF. Participants considered the bracketed text on potential compliance scenarios for HFCs, with some preferring that any mention of additional compliance obligations be removed from the text completely.

While some delegates stressed that there are no obligations on HFCs under the Protocol, others noted that the word "potential" recognized the current situation but allowed flexibility to accommodate future obligations. Another delegate agreed that such text would not prejudice the outcome of discussions on whether to consider new obligations under the Montreal Protocol. One cautioned against including text that is too general, explaining that the TEAP, as a technical body, should not be asked to make political decisions about the scope of their work.

Disagreements remained on whether to retain two paragraphs, one asking the TEAP to provide information on resources that would be needed to meet potential compliance obligations

resulting from amendment proposals being considered by MOP-22, and another asking the TEAP to provide information on the additional resources that would be needed to promote low-GWP alternatives to HFCs. Delegates agreed to consider again the bracketed text following the discussions of the informal group on low-GWP alternatives.

In the closed session on the evaluation ToR, delegates continued line-by-line consideration of the text, focusing their discussions on sections on the scope and on conclusions and recommendations of the study. Under the scope, delegates deliberated on, *inter alia*, the issue of technology transfer, and on conclusions and recommendations, some parties agreed to work bilaterally on draft text for consideration by the contact group.

ODS destruction: The contact group, co-chaired by Annie Gabriel (Australia) and Javier Ernesto Camargo Cubillos (Colombia), met on Wednesday morning and finalized their consideration of a draft decision on destruction technologies with regards to ODS (UNEP/OzL.Pro.22/3 XXII/[I]), agreeing to reference "comprehensive verification criteria."

The contact group also considered a draft decision on environmentally sound management of ODS banks (UNEP/OzL.Pro.22/3 XXII/[L]). Discussion focused on a request to the ExCom of the MLF to, *inter alia*, continue its efforts on further cost-effective projects for the destruction of ODS banks during the next replenishment and provide Article 5 parties with the funding necessary to manage ODS banks. Some parties called for the definition of the term "cost-effective," with others noting that a definition like this would be difficult to formulate given the time constraints. Parties discussed the MLF guidelines, noting that the term "cost-effective" was dealt with in the guidelines, and agreed to delete this reference.

Delegates then discussed the MLF-funded demonstration projects in relation to the aforementioned request to the ExCom. Some developed country delegates were concerned that the request to the ExCom to further its efforts on ODS bank destruction projects at this point may be preemptive, as the "learn by doing" demonstration projects have not been executed. One developing country party stressed that as the projects were yet to be executed, and therefore no feedback had been received, there was a need to maintain the request to the MLF for assistance to Article 5 parties to fully manage ODS banks, through activities including national inventories of banks, the development of legislative frameworks and strategies for sound waste management.

One developed country delegate called for a reference to “further assistance” for Article 5 parties for the management of ODS banks, as opposed to “funding,” and delegates agreed.

QPS uses of methyl bromide: Co-chaired by Robyn Washbourne (New Zealand) and Tri Widayati (Indonesia), the contact group on QPS uses of methyl bromide met on Wednesday afternoon.

The EU presented part of the revised text of the annex to the draft decision (UNEP/OzL.Pro.22/CRP.3), requesting the TEAP to provide information related to QPS uses of methyl bromide, including: international trade and technology; trends and potential fluctuations in the use of methyl bromide for QPS; the main commercial, technical and regulatory drivers for such methyl bromide use; the most significant economical and environmental impacts of each use; and biosecurity risks.

One party requested a simple CRP indicating quarantine challenges that will impact methyl bromide use for QPS, and what a strategic analysis would look like and who would undertake this analysis. Several parties requested the full text of the revised draft decision, especially regarding the obligations of parties.

The EU announced that the pre-drafting group would resume work in order to produce a short CRP for discussion Thursday.

Budget Committee: Chaired by Ives Enrique Gómez Salas (Mexico), the Committee continued discussing the possibility of upgrading the post of Executive Secretary to ASG. Chair Salas introduced the Secretariat’s text, as well as a proposed amendment. The text requested the President of the Bureau of MOP-22 to work with UNEP’s Executive Director to request the Secretary General to raise the level of the Executive Secretary. The proposed amendment noted the “administrative impossibility of maintaining the Executive Secretary,” and requested a “temporary” upgrade of the post to ASG.

Most parties supported ensuring continued and consistent leadership in the period leading up to 2015, and some parties emphasized that the upgrade be time-bound.

One developed country party requested time to conduct additional research on the possibility of extending the current holder’s tenure. The Secretariat informed delegates that an extension of three years would be impossible, according to UN rules. Discussion will continue on Thursday.

Informal group on low-GWP alternatives to ODS:

Co-chaired by Blaise Horisberger (Switzerland) and Leslie Smith (Grenada), the informal group on low-GWP alternatives to ODS met on Wednesday afternoon. It was noted that Brazil and four other Latin American countries had proposed a draft decision, which among other things, requests the TEAP to assess the extent to which the ExCom funding guidelines on HCFCs allow for the selection and financing of low-GWP alternatives to HCFCs in Article 5 countries (UNEP/OzL.Pro.22/CRP.13).

Introducing the proposal, Brazil highlighted that it requests the TEAP to assess the quantities and types of high-GWP substances that are likely to be phased in as alternatives to HCFCs, as well as to identify the affected sectors and the extent to which the funding guidelines on HCFCs would allow for the selection and financing of low-GWP alternatives to HCFCs by Article 5 parties. He said that once the TEAP has fully assessed the situation regarding low-GWP alternatives, parties could consider how to address the problem by the rules of the Montreal Protocol.

In the ensuing discussion, some developing country parties noted their reservations about introducing discussions on HFCs into the Montreal Protocol, and stressed that if discussions proceeded, any assessment should be comprehensive and exhaustive, ensuring that technologies with low-GWP do not possess other hazardous properties. Another party preferred

referring to “environmentally friendly” or “environmentally benign” and avoiding reference to low-GWP or high-GWP alternatives.

Some parties lauded the Brazilian proposal as an “excellent” basis from which to initiate discussion, and highlighted the need to broaden the focus to also consider the issue of growing demand for HCFC alternatives, the cost implications of the path forward, and the environmental, health and safety aspects of alternatives.

Delegates then made specific suggestions to the draft decision and subsequently considered amendments to the text proposed by several parties. One developed country party explained that collecting data on the quantities and types of high-GWP alternatives that have been phased in under the Montreal Protocol would not pre-judge policy responses to address these substances, but emphasized that parties should acquire these data as they have a responsibility to be aware of the impacts of the Protocol on other environmental issues. Another elaborated that the information would be relevant for following through on commitments to support the introduction of low-GWP alternatives to HCFCs and CFCs.

Some developing countries questioned the need for such information under the Montreal Protocol, noting that data on greenhouse gases should already be available in parties’ national inventories under the UNFCCC and the Kyoto Protocol, and are relevant to work in the climate, not the ozone, regime.

No consensus was reached on the proposed text, and, citing the need to dedicate time and energy to other contact groups and agenda items of the meeting, BRAZIL suggested asking the MOP to “take note” of the work done in the informal contact group and to continue discussions at OEWG-31. Some other developing country parties supported this, noting the issue was “not a priority” for them; others disagreed, asking for the issue to be given further attention at this meeting.

The group will meet briefly on Thursday.

PLENARY

Delegates convened in plenary during the evening to hear reports from the various contact groups and to consider decisions to be forwarded to the high-level segment.

Parties agreed to forward decisions to the high-level segment on: essential uses of CFCs by the Russian Federation (UNEP/OzL.Pro.22/CRP.6/Rev.1), process agents (UNEP/OzL.Pro.22/CRP.2/Rev.2), the situation of Haiti (UNEP/OzL.Pro.22/CRP.12), stockpiles (UNEP/OzL.Pro.22/CRP.10), the report of the ImpCom (UNEP/OzL.Pro.22/3), and ICAO and halons (UNEP/OzL.Pro.22/CRP.7).

IN THE CORRIDORS

On a day packed with back-to-back contact groups, delegates filled the room for the informal group on low-GWP alternatives on Wednesday afternoon to discuss: the proposal on ExCom HCFC funding guidelines, the phase-out of HFC-23 as a by-product emission of the production of HCFC-22, and the Protocol amendment proposals.

Some participants speculated that the inclusion of the proposal on an assessment of the ExCom HCFC funding guidelines in this cluster of issues provided a mechanism through which progress could be made on addressing HFCs under the Protocol. Potential progress stalled when Brazil proposed deferring discussion on the assessment of the HCFC guidelines to the OEWG.

With one participant commenting that Brazil initiated the draft decision as a result of its frustration with the limited funding allocated by the guidelines on HCFC phase-outs, seasoned delegates suggested the party might alternatively address the issue in the contact group on the ToR for the TEAP study on MLF replenishment. HFC Amendment proposal proponents were left questioning – where to from here?

MOP-22 HIGHLIGHTS: THURSDAY, 11 NOVEMBER 2010

The preparatory segment of Montreal Protocol MOP-22 convened for its fourth day in Bangkok, Thailand, on Thursday, 11 November 2010.

In the morning, delegates attended the opening of the High-level segment. Delegates then convened in plenary throughout the day to hear presentations by heads of delegations.

Contact groups on ODS destruction, QPS uses of methyl bromide and ToRs on evaluation of the financial mechanism and replenishment of the MLF, an informal group on low-GWP alternatives, and the Budget Committee met throughout the day.

OPENING OF THE HIGH-LEVEL SEGMENT

Michael Church, Minister of Environment (Grenada), MOP-21 President, applauded the universal ratification of the Protocol and appealed to the few parties that have not ratified the amendments to do so expeditiously.

Executive Secretary Marco González, on behalf of UNEP Executive Secretary Achim Steiner, thanked the government of Thailand for hosting the meeting. He highlighted that parties to Montreal Protocol have not only succeeded in protecting the ozone layer, but also contributing to protecting the global climate system, and appealed to parties to make greater efforts. He paid tribute to Madhava Sarma, former Executive Secretary of the Ozone Secretariat, and other two distinguished members of the ozone community who recently passed away. Participants held a moment of silence to express condolences. González also expressed appreciation for the contribution made by TEAP Co-Chair Jose Pons Pons, EEAP Co-Chair Jan van der Leun and UNEP OzonAction Branch Head Rajendra Shende, who are retiring.

Trairong Suwankiri, Deputy Prime Minister (Thailand), opened the High-level segment of MOP-22, and highlighted Thailand's success in having phased-out more than 10,000 tonnes of CFCs. He stressed the most important issues under MOP-22's consideration are: the ToR for the TEAP study of the replenishment of the MLF; the HFC amendment proposals; and the issue of ODS destruction.

ORGANIZATIONAL MATTERS

MOP-22 elected by acclamation Steven Reeves (UK) as President; Hassen Hannachi, (Tunisia), Abid Ali (Pakistan) and Sonja Ruzin (Serbia) as Vice Presidents; and Michael Church (Grenada) as Rapporteur. Delegates also adopted the agenda (UNEP/OzL.Pro.22/1/Add.1).

MOP-22 President Reeves encouraged participants to submit any outstanding credentials to the Secretariat.

PRESENTATIONS OF ASSESSMENT PANELS ON THEIR QUADRENNIAL ASSESSMENT

Noting the Executive Summary had been released, and the full report would be available in early 2011, SAP Co-Chair A.R. Ravishankara (US) emphasized that the SAP findings strengthen its 2004 conclusions that the Montreal Protocol is achieving its objectives.

EEAP Co-Chair Janet Bornman (Denmark) presented on the EEAP's findings on links between climate change, ozone depletion and UV radiation, noting, among other issues, human health, terrestrial and aquatic ecosystems and biogeochemical cycles.

TEAP Co-Chair Lambert Kuijpers (the Netherlands) presented the preliminary TEAP assessment report, and outlined the content of each TOC report. In a short question period, participants discussed the TEAP's proposed GWP classification scale and HCFCs in the foam sector.

PRESENTATION BY THE MULTILATERAL FUND

ExCom Chair Javier Ernesto Camargo Cubillos (Colombia) presented the work of the ExCom's past three meetings (UNEP/OzL/Pro.22/8). He highlighted, among other things: progress on funding to support accelerated HCFC phase-outs; additional funding for low-GWP alternatives to HCFCs; and the development of an MLF Climate Impact Indicator to evaluate technologies for replacing HCFCs.

He outlined efforts by the UNDP, UNEP, the United Nations Industrial Development Organization (UNIDO) and the World Bank to assist in implementation of the Protocol, particularly for Article 5 countries. He noted, *inter alia*, work on HCFC phase-outs and licensing systems, ODS destruction projects, and possible uses of carbon markets.

STATEMENTS BY HEADS OF DELEGATIONS

GRENADA reiterated its support for upgrading the post of Executive Secretary of the Ozone Secretariat to ASG. JAPAN stressed that incentives for all parties to address ODS banks must be explored, and that the scope of the MLF should be clear, to avoid duplication. The US underscored the need to avoid undoing the Protocol's achievements and said his country would not tolerate inaction based on bureaucratic excuses. INDONESIA highlighted its commitment to phasing out HCFCs, stressed the need to reduce halon dependency of aircraft and offered to host MOP-23. UGANDA said existing networks tackling illegal trade of ODS require strengthening at the national and regional levels.

ARMENIA outlined its efforts to phase-out the consumption of ODS. BOSNIA AND HERZEGOVINA explained it has phased out 250 tonnes of CFCs and initiated implementation

of its HCFC management plan. ZIMBABWE noted his country lacks feasible ODS disposal options, said a mobile destruction facility was necessary, and promoted natural refrigerants. LAOS PDR outlined its work in developing its HCFC management plan. Highlighting the importance of addressing ODS destruction, the EU stressed that innovative and collaborative ways to address banks to capture the climate benefits are required. SAMOA and the SOLOMON ISLANDS highlighted the need for assistance for ODS destruction and expressed interest in working with other Pacific island countries on this.

SERBIA described his government's ozone awareness-raising work with the education ministry. INDIA stressed that many policy issues on funding for HCFC phase-out are yet to be resolved, and emphasized HFCs are outside the scope of the Protocol. Highlighting the scope of the Protocol's work ahead, KENYA called on all parties to be prepared to compromise. MONGOLIA stressed the importance of the involvement of the business community in meeting Protocol commitments. MALAWI described its efforts at phasing out methyl bromide in the agricultural sector.

BAHRAIN underscored its interest in supporting the HFC amendment proposal. The DEMOCRATIC REPUBLIC OF CONGO expressed concern over the low levels of financing for HCFC activities due to recent decisions of the ExCom. FSM said the best reason for phasing out HFCs was "because we can." ANGOLA described a proposed initiative to prevent illegal trade with neighboring countries. NEW ZEALAND described its efforts to balance biosecurity priorities with ozone protection, through capture of methyl bromide used for QPS. Describing the reconversion of a foam factory, the DOMINICAN REPUBLIC said this was a key activity in phasing out HCFCs.

CONTACT GROUPS

Financial mechanism: In the afternoon, delegates met to continue considering the text of ToRs on the evaluation of the financial mechanism and replenishment of the MLF. In the open session on replenishment, no consensus was found on the text remaining in square brackets, but participants agreed to consider compromise text proposed by one party and to return to the issue in a later session.

Parties then discussed the outstanding evaluation issues, in a closed session. Delegates considered operative issues, including questions of budgets and who should undertake the evaluation. They also discussed the text of the annex, and agreed to consider some compromise text drafted in informal consultations. The group agreed to meet again on Friday in an effort to complete its work.

ODS destruction: The contact group met on Thursday to resume consideration of a draft decision on environmentally sound management of ODS banks (UNEP/OzL.Pro.22/3 XXII/[L]). Delegates agreed to delete a paragraph calling on the ExCom to consider the funding of cost-effective destruction projects during the next replenishment period.

Delegates then discussed additional funding opportunities for the management of ODS banks. Many developed country parties recalled the seminar on the sound management of ODS banks held in July 2010, and called for including the GEF as a funding source, noting the opportunities for partnership and co-financing that the GEF presents. Disagreeing and calling for removal of all references to the GEF, one developing country party expressed concern that the GEF may give higher priority to other MEAs in their current and future replenishments, and had not provided adequate financing for destruction of ODS banks in the past. He stressed that all funding for the destruction of ODS banks should come from the MLF. The Secretariat briefed parties that, although the GEF replenishment is not as "robust as hoped for," there may still be a small amount of funding available for possible investment in ODS destruction projects if, *inter alia*, POPs destruction could be carried out simultaneously. Trying

to break the deadlock, one developed country party suggested inviting parties to explore the many possible opportunities for financial resources and synergies described in the document and presentations from the seminar for the sound management of ODS banks.

In the afternoon, noting that no consensus could be reached on the decision, the contact group suspended discussion. They agreed to reconvene briefly on Friday to discuss the way forward in future sessions.

QPS uses of methyl bromide: Co-chaired by Robyn Washbourne (New Zealand) and Tri Widayati (Indonesia), the contact group on QPS uses of methyl bromide met on Thursday afternoon.

The EU presented a revised CRP on the subject. Some parties did not agree to references to developing a strategic view on methyl bromide use for QPS, or to encouraging parties to report the main categories of use for methyl bromide. No consensus was reached in the group on these issues.

Budget Committee: The group continued consideration of an amended proposal by the Secretariat to upgrade the post of Executive Secretary to the level of ASG, which it said considered all parties' concerns. One developed country party reiterated their inability to agree to the upgrade, and preferred that the wording be kept general to allow the President of the MOP-21 Bureau a "wide range of options for the extension" of the Executive Secretary's term. The committee agreed to add a footnote on the Executive Secretary's budget line (UNEP/OzL.Pro.22/4), requesting UNEP's Executive Director and the UN Secretary-General "to explore any means to retain the current Executive Secretary until 2015," dropping the reference to the ASG upgrade.

Delegates also discussed the Secretariat's proposed draft decision on financial matters. On funding the evaluation of the financial mechanism, one delegate informed participants that current discussions in the financial mechanism contact group indicate that the required funds may either come from the drawdown, authorized by the parties, or from the MLF. One delegate informed delegates of another option put forward by the ToR group of having the UN's joint inspection unit carry out the evaluation. Delegates agreed to finalize deliberations once the contact group on the financial mechanism had completed its work.

Informal group on low-GWP alternatives to ODS: Co-chaired by Blaise Horisberger (Switzerland) and Leslie Smith (Grenada), the informal group on low-GWP alternatives to ODS met briefly on Thursday afternoon.

Explaining that he had consulted with several parties, Co-Chair Horisberger introduced a draft decision requesting the TEAP to "review and update the report pursuant to decision XXI/9 and to provide a draft report to OEWG-31 and final report at MOP-23," and the informal group agreed to it. The group also agreed to a draft factual report on its work, which stated the group's decision to continue discussions at OEWG-31.

IN THE CORRIDORS

As the high-level segment launched on Thursday with colorful Thai dancers, many delegates were absent from the plenary hall, instead convening in parallel to resolve outstanding issues still facing the contact groups. In reference to this apparent diligence, some delegates were left questioning: to what end? Despite lengthy deliberations in several groups, square brackets still remained for key issues, and some delegates left for the evening cultural reception wondering if their work over the week would lead to resolution of many (or any) significant issues.

ENB SUMMARY AND ANALYSIS: The *Earth Negotiations Bulletin* summary and analysis of MOP-22 will be available on Monday, 15 November 2010 online at: <http://www.iisd.ca/ozone/mop22/>

SUMMARY OF THE TWENTY-SECOND MEETING OF THE PARTIES TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER: 8-12 NOVEMBER 2010

The twenty-second Meeting of the Parties (MOP-22) to the Montreal Protocol on Substances that Deplete the Ozone Layer took place in Bangkok, Thailand, from 8-12 November 2010. The meeting was attended by over 400 participants representing governments, UN agencies, intergovernmental and non-governmental organizations, academia, industry and the agricultural sector.

MOP-22 opened with a preparatory segment from Monday to Wednesday, 8-10 November, which addressed the MOP's substantive agenda items and related draft decisions. This was followed by a high-level segment on Thursday and Friday, 11-12 November, which 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 Wednesday, it reconvened several times during the high-level segment to address outstanding issues.

MOP-22 adopted 16 substantive and several procedural decisions, including on: the terms of reference (ToR) for the Technical and Economic Assessment Panel study on the replenishment of the Multilateral Fund; the ToR for the evaluation of the financial mechanism; assessment of technologies for ozone-depleting substances (ODS) destruction; budget; and data and compliance issues. MOP-22 was not able to make progress on low-global warming potential alternatives, or ODS destruction, which many delegates said were issues key to the long-term future of the Protocol. Although the draft decisions to amend the Montreal Protocol to include hydrofluorocarbons (HFCs) were not successful, their proponents remained committed to addressing HFCs through the Montreal Protocol in the future.

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 196 parties.

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

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parties). Developing countries (Article 5 parties) were granted a grace period allowing them to increase their ODS use before taking on commitments. The Protocol currently has 196 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, 195 parties have ratified the London Amendment. MOP-2 also established the Multilateral Fund (MLF), 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 MLF Secretariat. The Fund is replenished every three years, and has received pledges of over US\$2.8 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, 192 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 ban trade in methyl bromide with non-parties to the Copenhagen Amendment. To date, 181 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, 165 parties have ratified the Beijing Amendment.

MOP-15 AND FIRST EXTRAORDINARY MOP: 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 were available. Delegates could not reach agreement and took the unprecedented step of calling for an "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 on 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 AND EX-MOP-2: MOP-16 took place in Prague, the Czech Republic, in 2004. Work on methyl bromide exemptions for 2006 was not completed and parties decided to hold a second ExMOP. ExMOP-2 was held in July 2005, in Montreal, Canada. Parties agreed to supplementary levels of CUEs for 2006. 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 (COP-7) 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 included a US\$470.4 million replenishment of the MLF with for 2006-2008, and agreement on 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, *inter alia*: future work following the Ozone Secretariat's workshop on the Special Report of the Intergovernmental Panel on Climate Change and the Technical and Economic Assessment Panel (TEAP); difficulties faced by some Article 5 parties manufacturing CFC-based metered dose inhalers (MDIs); treatment of stockpiled ODS relative to compliance; and a feasibility study on developing a system for monitoring the transboundary movement of ODS.

MOP-19: MOP-19 took place in Montreal, Canada, in 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.

COP-8/MOP-20: MOP-20 was held jointly with COP-8 of the Vienna Convention in Doha, Qatar, in November 2008. Parties agreed to replenish the MLF with US\$490 million for 2009-2011 and adopted other decisions concerning, *inter alia*: the environmentally sound disposal of ODS; approval of 2009 and 2010 CUEs for methyl bromide; and compliance and reporting issues. This meeting was also the Protocol's first paperless meeting.

MOP 21: MOP-21 took place in Port Ghalib, Egypt, from 4-8 November 2009 and adopted decisions on: alternatives to HCFCs; institutional strengthening; essential uses; environmentally sound management of banks of ODS; methyl bromide; budget; and data and compliance issues. Delegates considered, but did not agree to, a proposal to amend the Montreal Protocol to include HFCs.

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. Article 5 parties were required to phase out production and consumption of hydrobromochlorofluorocarbons by 1996 and bromochloromethane by 2002. Article 5 parties must still phase out: production and consumption of CFCs, halons and CTC by 2010; and methyl chloroform and methyl bromide by 2015. Under the accelerated phase-out of HCFC adopted at MOP-19, HCFC production and consumption by Article 2 countries was to be frozen in 2004 and phased-out by 2020, while in Article 5 parties, HCFC production and consumption is to be frozen by 2013 and phased-out by 2030 (with interim targets prior to those dates, starting in 2015 for Article 5 parties). There are exemptions to these phase-outs to allow for certain uses lacking feasible alternatives.

MOP-22 REPORT

PREPARATORY SEGMENT

On Monday morning, 8 November 2010, the twenty-second Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (MOP-22) preparatory segment was opened by Prepat Vanapitaksa, Director General, Department of Industrial Works (Thailand). He called for stronger cooperation between parties, industry, civil society and business to enhance the implementation of the Protocol.

Lauding developing countries for their efforts to meet the 2010 target by phasing out a majority of the substances under the Protocol, Marco González, Executive Secretary, Ozone Secretariat, suggested that parties shift their focus to proposals for the phase-out of hydrochlorofluorocarbons (HCFCs), methyl bromide and methyl chloroform. He also highlighted the need to resolve outstanding issues on, *inter alia*: the evaluation of the financial mechanism; the phase-out of hydrofluorocarbon (HFC)-23 as a by-product of HCFC-22; synergies with other bodies, including the International Civil Aviation Organization, the International Treaty on Plant Genetic Resources and the UN Framework Convention on Climate Change (UNFCCC); and critical use exemptions, using guidance from the Technology and Economic Assessment Panel (TEAP).

The preparatory segment was co-chaired by Fresnel Díaz (Venezuela) and Martin Sirois (Canada). Sirois introduced the provisional agenda (UNEP/OzL.Pro.22/1). Stating that HFCs are not ozone-depleting substances (ODS), India, supported by China and Brazil but opposed by the US, proposed removing the agenda item on the phase-out of HFC-23 as a by-product of HCFC-22 production. This change was not agreed to by parties. The agenda was adopted with an amendment proposed by Kazakhstan, to add discussion on ratification of the amendments.

Throughout MOP-22, delegates discussed agenda items and corresponding draft decisions in plenary, contact groups and bilateral consultations. Rather than addressing agenda items in order, issues likely to lead to the establishment of contact groups were addressed first, in an effort to ensure as little overlap between contact group meeting times as possible. Draft decisions were approved by the preparatory segment and

forwarded to the high-level segment for adoption on Friday evening. The description of the negotiations, the summary of the decisions and other outcomes are found below.

HIGH-LEVEL SEGMENT

On Thursday morning, delegates attended the opening of the high-level segment. MOP-21 President Michael Church, Minister of Environment of Grenada, applauded the universal ratification of the Protocol and appealed to the few parties that have not ratified the amendments to do so expeditiously.

Executive Secretary Marco González, on behalf of United Nations Environment Programme (UNEP) Executive Secretary Achim Steiner, thanked the government of Thailand for hosting the meeting. He highlighted that parties to the Montreal Protocol have not only succeeded in protecting the ozone layer, but have also contributed to protecting the global climate system, and appealed to parties to make greater efforts. He paid tribute to Madhava Sarma, former Executive Secretary of the Ozone Secretariat, and two other distinguished members of the ozone community who recently passed away. Participants held a moment of silence to express condolences. González also expressed appreciation for the contribution made by TEAP Co-Chair José Pons Pons, the Environmental Effects Assessment Panel Co-Chair Jan van der Leun and UNEP OzonAction Branch Head Rajendra Shende, who are retiring.

Trairong Suwankiri, Deputy Prime Minister of Thailand, then opened the high-level segment of MOP-22, and highlighted Thailand's success in having phased out more than 10,000 tonnes of chlorofluorocarbons (CFCs). He stressed the most important issues under MOP-22's consideration are: the terms of reference (ToR) for the TEAP study of the replenishment of the Multilateral Fund; the HFC amendment proposals; and the issue of ODS destruction.

MOP-22 then elected by acclamation Steven Reeves (UK) as President; Hassen Hannachi, (Tunisia), Abid Ali (Pakistan) and Sonja Ruzin (Serbia) as Vice Presidents; and Michael Church (Grenada) as Rapporteur. Delegates also adopted the agenda (UNEP/OzL.Pro.22/1/Add.1).

PRESENTATIONS BY THE ASSESSMENT PANELS ON THEIR QUADRENNIAL ASSESSMENT: On Thursday, MOP-22 President Steven Reeves (UK) invited reports from the assessment panels.

Scientific Assessment Panel (SAP): Noting the Executive Summary had been released, and the full report would be available in early 2011, SAP Co-Chair A.R. Ravishankara (US) emphasized that the SAP findings strengthen its 2004 conclusions that the Montreal Protocol is achieving its objectives.

Environmental Effects Assessment Panel (EEAP): EEAP Co-Chair Janet Bornman (New Zealand) presented the panel's findings on links between climate change, ozone depletion and UV radiation, noting, among other issues, human health, terrestrial and aquatic ecosystems and biogeochemical cycles.

Technology and Economic Assessment Panel (TEAP): TEAP Co-Chair Lambert Kuijpers (the Netherlands) presented the preliminary TEAP assessment report and outlined the content of each technical option committee (TOC) report.

Participants then briefly discussed the TEAP's proposed global warming potential (GWP) classification scale and HCFCs in the foam sector.

PRESENTATION BY THE MLF: On Thursday, MLF Executive Committee (ExCom) Chair Javier Ernesto Camargo Cubillos (Colombia) presented the work of the ExCom's past three meetings. He highlighted, among other things: progress on funding to support accelerated HCFC phase-outs; additional funding for low-GWP alternatives to HCFCs; and the development of an MLF Climate Impact Indicator to evaluate technologies for replacing HCFCs. He outlined efforts by the United Nations Development Programme (UNDP), UNEP, the United Nations Industrial Development Organization (UNIDO) and the World Bank to assist in implementation of the Protocol, particularly for Article 5 countries. He noted the work of these implementing agencies on, *inter alia*, HCFC phase-outs and licensing systems, ODS destruction projects, and possible uses of carbon markets.

STATEMENTS BY HEADS OF DELEGATIONS: On Thursday and Friday, delegates heard statements from heads of delegations and senior officials.

Grenada reiterated its support for upgrading the post of Executive Secretary of the Ozone Secretariat to the Assistant Secretary-General (ASG) level. Japan stressed that incentives for all parties to address ODS banks must be explored, and also said that the scope of the MLF should be clear, to avoid duplication. The US underscored the need to avoid undoing the Protocol's achievements and said his country would not tolerate inaction based on bureaucratic excuses. Indonesia highlighted its commitment to phasing out HCFCs, stressed the need to reduce aircraft dependency on halons and offered to host MOP-23. Uganda said existing networks tackling illegal trade of ODS require strengthening at the national and regional levels.

Armenia outlined its efforts to phase out the consumption of ODS. Bosnia and Herzegovina explained it had phased out 250 tonnes of CFCs and initiated implementation of its HCFC Phase-out Management Plan (HPMP). Zimbabwe noted his country lacks feasible ODS disposal options, said a mobile destruction facility was necessary and promoted natural refrigerants. Lao People's Democratic Republic outlined its work in developing its HPMP. Highlighting the importance of addressing ODS destruction, the European Union (EU) stressed that innovative and collaborative ways to address banks to capture the climate benefits are required. Samoa and the Solomon Islands highlighted the need for assistance with ODS destruction and expressed interest in working with other Pacific island countries on this.

Serbia described his government's ozone awareness-raising campaign. India stressed that many policy issues on funding for HCFC phase-out remain unresolved, and emphasized that HFCs are outside the scope of the Protocol. Highlighting the scope of the Protocol's work ahead, Kenya called on all parties to be prepared to compromise. Mongolia stressed the importance of the involvement of the business community in meeting Protocol commitments. Malawi described its efforts at phasing out methyl bromide in the agricultural sector.

Bahrain underscored its interest in supporting the amendment proposal to include HFCs into the Protocol. The Democratic Republic of Congo expressed concern over the low levels of financing for HCFC activities under recent decisions of the ExCom. The Federated States of Micronesia (FSM) said the best reason for phasing out HFCs was "because we can." Angola described a proposed initiative to prevent illegal trade with neighboring countries. New Zealand described its efforts to balance biosecurity priorities with ozone protection through the capture of methyl bromide used for quarantine and preshipment (QPS). Describing the reconversion of a foam factory, the Dominican Republic said this was a key activity in phasing out HCFCs.

Noting with appreciation the work of the TEAP, Cuba called for synergies between the Montreal Protocol and the UNFCCC in order to address issues of common concern. The Democratic People's Republic of Korea called for financial and technical support to enable developing countries to meet their obligations under the Protocol. Recognizing the importance of the MLF and of partnerships with other countries, Bhutan reported the successful phase-out of CFCs in his country. Mozambique highlighted her country's vulnerability to climate change and called for the financial and technical assistance required to phase out HCFCs. Informing delegates of his country's successful phase-out of CFCs in metered dose inhalers (MDIs), Iran stressed that collaborative and preemptive action is required for the phase out of HCFCs. The Cook Islands supported the FSM proposal on Protocol amendments to include HFCs.

Malaysia reported that it had formulated its HPMP and would phase out HCFCs by 2030, objected to the Protocol amendments to include HFCs and urged the MLF to provide additional funds for the destruction of ODS banks. Iraq reported that it had acceded to the Vienna Convention and Montreal Protocol, outlined efforts and activities undertaken as a new party, and requested technical and financial assistance for the destruction of ODS banks.

Nepal highlighted the importance of linkages between the ozone and climate regimes, and appealed for financial and technical support in implementing the Protocol. Zambia reported that his country is in the process of phasing out methyl bromide and is still facing the challenge of phasing out HCFCs. Bangladesh reported his country's 100% phase-out of CFCs in refrigeration and air-conditioning. Niger called for capacity building and information exchange to enhance the implementation of the Protocol.

Thanking the MLF for support provided for the phase-out of CFCs, Brazil urged the use of environmentally-friendly alternatives to HCFCs. Noting the challenges that still face the Protocol in the phase-out of HCFCs, China urged delegates not to focus on the politically-sensitive proposal to phase out HFCs under the Montreal Protocol. Reporting on her country's successful CFC phase-out strategy, Mexico welcomed increased synergies between the Montreal Protocol and the UNFCCC. South Africa outlined the efforts made by her country and urged parties to address the challenge in protecting the ozone layer with a spirit of dedication and cooperation. Noting its full compliance

with obligations in phasing out ODS in the first phase, Pakistan called for providing funding for institutional strengthening beyond 2011 for phasing out HCFCs.

The Maldives noted that it had succeeded in phasing out the first generation of ODS far ahead of schedule, committed to phasing out HCFCs in 2020, and urged the MLF to consider funding ozone-climate co-benefit activities. Sri Lanka said that without financial and technical assistance, it is hard to fulfill obligations to phase out HCFCs and other ODS. Tanzania said that decisions reached at this meeting should meet the financial needs for collection, transportation, storage and destruction of ODS in Article 5 countries. Libya outlined its efforts in phasing out HCFCs and methyl bromide. Liberia stressed the challenge in phasing out HCFCs, and called for phasing out HFCs through a synergetic approach. Mauritius underscored the need to evaluate HCFC replacements holistically. The Philippines outlined its achievements in phasing out ODS, and announced that it would implement its HPMP.

The Basel Convention reported its cooperation with the Ozone Secretariat and committed to continuing these efforts.

NGO STATEMENTS: On Friday, Greenpeace urged parties to form an HFC regime under the Montreal Protocol in cooperation with the UNFCCC, called on industrialized countries to take the lead in phasing out HFCs immediately, and encouraged donors to contribute US\$1 billion for phasing out HFCs in each of the MLF replenishment periods. The International Institute of Refrigeration explained that natural refrigerants are already available for many applications. Highlighting that concerns on alternatives are valid, the Natural Resources Defense Council (NRDC) said that an adequate replenishment was necessary to make further transitions possible. The Technology Education and Research for the Environment Centre suggested providing more funding to women's groups.

MOP-22 OUTCOMES AND DECISIONS

MEMBERSHIP OF MONTREAL PROTOCOL BODIES FOR 2011: The issue was raised in the preparatory segment on Monday, and on Friday during the high-level segment.

Members of the Implementation Committee: The high-level segment confirmed the positions of Egypt, Jordan, the Russian Federation, Saint Lucia and the US as members of the Implementation Committee (ImpCom) for one additional year, and elected Algeria, Armenia, Germany, Nicaragua and Sri Lanka as members of the Committee for a two-year period beginning 1 January 2011. It also noted the selection of Elisabeth Munzert (Germany) to serve as President and Ghazi Al Odat (Jordan) to serve as Vice-President and Rapporteur of the ImpCom for one year beginning 1 January 2011.

Members of the ExCom: Parties elected Australia, Belgium, the Czech Republic, France, Japan, Switzerland and the US as members of the ExCom representing the non-Article 5 parties, and elected Argentina, China, Cuba, Grenada, Kenya, Kuwait and Morocco as members representing Article 5 parties, for one year beginning 1 January 2011. It also noted the selection of Patrick John McInerney (Australia) to serve as Chair and Wuruz Wen (China) to serve as Vice-Chair of the ExCom for one year beginning 1 January 2011.

Co-chairs of the Open-Ended Working Group

(OEWG): Parties endorsed the selection of Ndiaye Cheikh Sylla (Senegal) and Gudi Alkemade (the Netherlands) as Co-Chairs of the OEWG in 2011.

Co-chairs of the assessment panels: On Monday, Co-Chair Díaz introduced draft decisions on new co-chairs of the TEAP (UNEP/OzL.Pro.22/3, XXII/[A]) and EEAP (UNEP/OzL.Pro.22/3, XXII/[B]). In Friday's high-level segment, parties endorsed: Nigel Paul (UK) as Co-Chair of the EEAP; Marta Pizano (Colombia) as Co-Chair of the TEAP for a term of four years; and Bella Maranion (US) as a Senior Expert of the TEAP for a term of four years. Parties also requested that the TEAP and its technical option committees (TOCs) draw up guidelines for the nomination of experts prior to OEWG-31, and also requested that the TEAP consider the need for balance and appropriate expertise when appointing members of the TOCs, task forces and other subsidiary groups.

FINANCIAL REPORTS AND BUDGETS: On Monday, Co-Chair Díaz introduced the documents UNEP/OzL.Pro.22/4 and Add 1, noting that the draft decision contains a provision for upgrading the post of the Executive Secretary and mandated the Budget Committee to begin work.

The Budget Committee, chaired by Ives Enrique Gómez Salas (Mexico), met on Tuesday, and discussed the Secretariat proposal to upgrade the post of the Executive Secretary to Assistant Secretary-General (ASG). Delegates considered including this upgrade in a footnote contained in the revised version of the approved 2010 and proposed 2011-2012 budgets of the Trust Fund for the Protocol (UNEP/OzL.Pro.22/4). While discussing options for retaining the current Executive Secretary, some delegates ruled out the possibility of taking him on under a consultant's contract, citing the need for the continuity of strong leadership of the Protocol. One party registered opposition to upgrading the post to the ASG level, but agreed to further negotiation on this matter.

On Wednesday, Chair Salas introduced a proposed amendment requesting the President of the Bureau of MOP-21 to work with UNEP's Executive Director to request the Secretary-General to raise the level of the Executive Secretary. The proposed amendment noted the "administrative impossibility of maintaining the Executive Secretary," and requested a "temporary" upgrade of the post to ASG. Most parties supported ensuring continued and consistent leadership in the period leading up to 2015, and some parties preferred that the upgrade be time-bound. One developed country party requested time to conduct additional research on the possibility of extending the current holder's tenure.

On Thursday, the Committee considered an amended proposal, which the Secretariat said included all parties' concerns. One developed country party reiterated its inability to agree to the upgrade, and preferred that the wording be kept general to allow MOP-21 President Michael Church (Grenada) a "wide range of options for the extension" of the Executive Secretary's term. The committee agreed to add a footnote on the Executive Secretary's budget line (UNEP/OzL.Pro.22/4), requesting UNEP's Executive Director and the UN Secretary-General "to explore any means to retain the current Executive Secretary until 2015," dropping the reference to the ASG upgrade.

On funding the evaluation of the financial mechanism, one delegate informed participants that current discussions in the financial mechanism contact group indicated that the required funds may either come from the drawdown, authorized by the parties, or from the MLF. Delegates agreed to finalize deliberations once the contact group on the financial mechanism had completed its work.

On Friday, Co-Chair Sirois introduced the draft decision on financial matters including financial reports and budgets (UNEP/OzL.Pro.22/CRP.16). Budget Committee Chair Salas noted that figures for 2011 were still in brackets awaiting a decision from the ToR contact group on the amount to be designated for the evaluation of the financial mechanism. Delegates agreed to forward this decision to the high-level segment, with Co-Chair Sirois later announcing an addition of US\$70,000 for activities related to the evaluation of the financial mechanism.

During the adoption of the decision in the closing plenary, Japan reiterated its desire to upgrade the post of Executive Secretary to ASG.

Final Decision: In the final decision (UNEP/OzL.Pro.22/CRP.16/Rev.1), the MOP, welcoming the continued efficient management by the Secretariat of the finances of the Montreal Protocol Trust Fund, *inter alia*:

- approves the revised 2010 budget in the amount of US\$4,955,743 and the 2011 budget in the amount of US\$4,756,640 and to take note of the proposed budget of US\$4,943,796 for 2012;
- authorizes the Secretariat to draw down US\$479,707 in 2011 and notes the proposed drawdown of US\$666,863 in 2012;
- approves total contributions to be paid by the parties of US\$4,276,933 for 2011 and notes the contributions of \$4,276,933 for 2012;
- authorizes the Secretariat to maintain the operating cash reserve at 15% of the 2011 budget to be used to meet the final expenditures under the Trust Fund; and
- urges all parties to pay their outstanding contributions as well as their future contributions promptly and in full.

The decision also contains footnotes which, *inter alia*: request the President of the Bureau of MOP-21 to work with the Executive Director of UNEP to explore any means to retain the current Executive Secretary through 2015 and to convey to the UN Secretary-General the parties' request to find means to extend the tenure of the current Executive Secretary of the Ozone Secretariat through 2015; and request the Ozone Secretariat, in cases where the OEWG and the ExCom meetings are held back-to-back, to consult with the MLF Secretariat, with a view to selecting the meeting location that is the most cost-effective, taking into account the budgets of both Secretariats.

ISSUES RELATED TO THE FINANCIAL MECHANISM UNDER ARTICLE 10 OF THE MONTREAL PROTOCOL:

On Monday, parties considered issues related to the financial mechanism and agreed to convene a contact group, co-chaired by Paul Krajnik (Austria) and David Bola Omotosho (Nigeria), to consider draft decisions on the ToR for an evaluation of the financial mechanism (UNEP/OzL.Pro.22/3, XXII[C]) and for a study on the 2012-2014 replenishment of the MLF (UNEP/OzL.Pro.22/3, XXII[D]). The contact group met every day throughout the week, with discussions on the replenishment

open to observers and discussions on the evaluation held in closed sessions. The group concluded its work on the ToR for the replenishment study on Thursday, and finalized the draft decision on the ToR for the evaluation on Friday. Both decisions were adopted without amendment on Friday.

ToR for an evaluation of the financial mechanism (decision XXI/28): On Tuesday, the contact group deliberated on the text of the draft decision on the ToR for the evaluation in an attempt to narrow the scope of the evaluation and clarify the tasks that would be required of the evaluation. The contact group considered the preamble and purpose of the evaluation, along with policy issues and the analysis of results. Delegates considered issues that should be addressed in the evaluation, including, diverse indicators for the evaluation, ODS phase-out, project timing, additional benefits, and climate effects.

On Wednesday, delegates continued consideration of the text, focusing their discussions on sections on the scope and on conclusions and recommendations of the study. Under the scope, delegates deliberated on, *inter alia*, the issue of technology transfer, and some parties agreed to work bilaterally on draft text on conclusions and recommendations.

On Thursday, delegates considered operative issues, including questions on the budgets and who should undertake the evaluation. They also discussed the annex, and agreed to consider compromise text drafted in informal consultations.

On Friday morning, the group addressed the budget and detailed schedule for the evaluation, as well as issues related to technology transfers, co-benefits and interlinkages between ozone and climate. On Friday afternoon, Co-Chair Krajnik reported that the contact group had successfully concluded its deliberations and introduced the draft decision on the evaluation of the financial mechanism (UNEP/OzL.Pro.22/CRP.18). He outlined the tentative timeframe for the study and said it would be finalized by September 2012. The decision was forwarded to the high-level segment, where it was adopted.

Final Decision: In the decision (UNEP/OzL.Pro.22/CRP.18), the MOP, *inter alia*:

- approves the ToRs for an evaluation of the financial mechanism, as contained in the annex to the decision;
- sets up a steering panel of four Article 5 and four non-Article 5 members, consisting of Austria, the US, Canada, Japan, Colombia, India, Nigeria and the Former Yugoslav Republic of Macedonia, to select an evaluator and supervise the evaluation process;
- requests the Ozone Secretariat to finalize the procedure for selecting the qualified external and independent evaluator;
- approves a total budget for the evaluation of up to US\$200,000, with the amount of US\$70,000 from the 2011 Trust Fund budget to start the application bidding process, with the understanding that parties will decide in 2011 on the funding source for the balance of the budget; and
- ensures that the final report and recommendations of the evaluator are made available to parties for consideration at MOP-24.

The annex to the decision contains the ToRs for the evaluation, with sections on the preamble, purpose, scope, form and presentation of the study, conclusions and recommendations,

sources of information and timeframe and milestones. These specify, among other things:

- that more than five years had passed since the previous evaluation had been conducted; and
- that the evaluator should, *inter alia*, consider the total reductions of ODS resulting from MLF activities; analyze other environmental and health co-benefits, including climate, as well as adverse effects resulting from MLF activities to phase out ODS; and review the extent to which programmes and projects approved under the financial mechanism have facilitated the implementation of the technology transfer provisions under Articles 10 and 10A of the Montreal Protocol and related decisions of the parties.

ToR for a study on the 2012-2014 replenishment of the MLF: On Wednesday, the contact group noted that the draft decision (UNEP/OzL.Pro.22/3, XXII/[D]) had been discussed in detail at OEWG-30, and decided to focus discussions on the text remaining in square brackets. Clearer wording was suggested for a paragraph asking the TEAP to provide updated figures needed to maintain stable and sufficient funding for the MLF. On potential compliance scenarios for HFCs, some preferred that any mention of additional compliance obligations be removed from the text completely. While some delegates stressed that there are no obligations on HFCs under the Protocol, others noted that the word “potential” recognized the current situation but allowed flexibility to accommodate future obligations and would not prejudice the outcome of discussions on whether to consider new obligations under the Montreal Protocol. One cautioned against including text that is too general, explaining that the TEAP, as a technical body, should not be asked to make political decisions about the scope of its work. Disagreements remained on whether to retain two paragraphs, one asking the TEAP to provide information on resources that would be needed to meet potential compliance obligations resulting from amendment proposals being considered by MOP-22, and another asking the TEAP to provide information on the additional resources that would be needed to promote low-GWP alternatives to HFCs. Delegates agreed to reconsider the bracketed text following the discussions of the informal group on low-GWP alternatives.

No consensus was found on Thursday on the text remaining in square brackets, but participants agreed to consider compromise text proposed by one party, and reached consensus on the draft decision by deleting the remaining bracketed text.

In plenary on Friday morning, Co-Chair Omotosho reported that the contact group had finalized its deliberations on the issue, and, on Friday afternoon, Co-Chair Krajnik introduced the draft decision on the TEAP study on the replenishment. Delegates forwarded the draft decision to the high-level segment, where it was adopted.

Final Decision: In the decision (UNEP/OzL.Pro.22/CRP.17), the MOP recalls decisions on previous ToRs for studies on the replenishment of the MLF and on previous replenishments of the MLF, and, *inter alia*, requests the TEAP to provide indicative figures for the periods 2015-2017 and 2018-2020 to support a stable and sufficient level of funding, on the understanding that these figures will be updated in subsequent replenishment studies. It also requests the TEAP to prepare a report, in consultation with all relevant persons, institutions and sources of

information deemed useful, to enable MOP-23 to take a decision on the appropriate level of the 2012-2014 replenishment of the MLF. The report should be prepared for submission to MOP-23 and presented through OEWG-31, and take into account, among other things:

- control measures and relevant decisions agreed upon by the parties, in particular those related to the special needs of low-volume- and very-low-volume-consuming countries, and decisions agreed upon by MOP-22 and the 61st and 62nd meetings of the ExCom insofar as those decisions will necessitate expenditure by the MLF during the period 2012-2014;
- the need to allocate resources to enable all Article 5 parties to maintain compliance with articles on control measures (Articles 2A-2E, 2G and 2I);
- the need to allocate resources to enable all Article 5 parties to meet 2013 and 2015 compliance obligations with respect to articles on control measures (Articles 2F and 2H);
- rules and guidelines agreed upon by the ExCom at all meetings, up to and including its 62nd meeting, for determining eligibility for the funding of investment projects, non-investment projects, including institutional strengthening, measures to combat illegal trade and sectoral or national phase-out plans, including HPMPs, measures to manage banks of ODS and ODS destruction projects; and
- the impact that the international market, ODS control measures and country phase-out activities are likely to have on the supply of, and demand for ODS, the corresponding effects on the price of ODS and the resulting incremental costs of investment projects during the period under review.

Assessment of the HCFC guidelines approved by the ExCom: This agenda item was taken up by the informal group on low-GWP alternatives, co-chaired by Blaise Horisberger (Switzerland) and Leslie Smith (Grenada), which convened on Wednesday afternoon and briefly on Thursday.

In Wednesday’s discussion, Brazil introduced its proposal, (UNEP/OzL.Pro.22/CRP.13), highlighting that it requests the TEAP to assess the quantities and types of high-GWP substances that are likely to be phased in as alternatives to HCFCs, as well as to identify the affected sectors and the extent to which the funding guidelines on HCFCs would allow for the selection and financing of low-GWP alternatives to HCFCs by Article 5 parties. He said that once the TEAP has fully assessed the situation regarding low-GWP alternatives, parties could consider how to address the problem by the rules of the Montreal Protocol.

In the ensuing discussion, some developing country parties noted their reservations about introducing discussions on HFCs into the Montreal Protocol, and stressed that if discussions proceeded, any assessment should be comprehensive and exhaustive, ensuring that technologies with low-GWP do not possess other hazardous properties. Another party preferred referring to “environmentally friendly” or “environmentally benign” alternatives and avoiding reference to low- or high-GWP alternatives.

Other parties lauded the Brazilian proposal as an “excellent” basis from which to initiate discussion, and highlighted the need to broaden the focus to also consider the issue of growing

demand for HCFC alternatives, the cost implications of the path forward, and the environmental, health and safety aspects of alternatives.

Delegates then made specific suggestions on the draft decision and subsequently considered amendments to the text proposed by several parties. One developed country party explained that collecting data on the quantities and types of high-GWP alternatives that have been phased in under the Montreal Protocol would not pre-judge policy responses to address these substances, but emphasized that parties should acquire data as they have a responsibility to be aware of the impacts of the Protocol on other environmental issues. Another elaborated that the information would be relevant for following through on commitments to support the introduction of low-GWP alternatives to HCFCs and CFCs.

Some developing countries questioned the need for such information under the Montreal Protocol, noting that data on greenhouse gases should already be available in parties' national inventories under the UNFCCC and the Kyoto Protocol, and are relevant to work in the climate, not the ozone, regime.

No consensus was reached on the proposed text and, citing the need to dedicate time and energy to other contact groups and agenda items of the meeting, Brazil suggested asking the MOP to "take note" of the work done in the informal contact group and to continue discussions at OEWG-31. Some other developing country parties supported this, noting the issue was "not a priority" for them; others disagreed, asking for the issue to be given further attention at this meeting.

On Thursday afternoon, the group met briefly. Explaining that he had consulted with several parties, Co-Chair Horisberger introduced a draft decision requesting the TEAP to "review and update the report pursuant to decision XXI/9 and to provide a draft report to OEWG-31 and final report at MOP-23," and the informal group agreed. The decision was not considered by the preparatory segment nor transferred to the high-level segment of MOP-22. The group also agreed to a draft factual report on its work, which stated the group's decision to continue discussions at OEWG-31, to be included in the report of MOP-22.

STATUS OF HCFCs BLENDED IN POLYOLS: On Monday, Co-Chair Díaz introduced a draft decision, proposed by India, on the status of HCFCs preblended in polyols as controlled substances (UNEP/OzL.Pro.22/3, XXII/[F]). He explained that the ExCom had agreed on funding for phasing out these HCFCs. Denmark and Brazil, as co-chairs of the OEWG-30 contact group on the issue, clarified that while the ExCom had resolved questions of funding, definitional issues still remained. The US proposed meeting with India and interested parties to resolve outstanding issues. Informal consultations took place throughout the week and on Friday the revised draft decision was forwarded to the high-level segment, where it was adopted.

Final Decision: In the decision (UNEP/OzL.Pro.22/CRP.15), the MOP:

- takes into account the importance of the phase-out of HCFCs in the polyurethane foams sector for compliance with the adjusted phase-out schedule for HCFCs in accordance with decision XIX/6;

- acknowledges with appreciation efforts by India to bring the issue of HCFCs in preblended polyols to the attention of the parties;
- recognizes fruitful discussions by the parties on the issue at OEWG-30;
- notes with appreciation the cooperative manner in which the members of the ExCom addressed the issue through decision 61/47, by agreeing on a framework on eligible incremental costs for Article 5 parties in their transition from the use of HCFCs in preblended polyols; and
- affirms that the issue of the use of HCFCs in preblended polyols has been addressed to the satisfaction of the parties.

ENVIRONMENTALLY SOUND MANAGEMENT

(ESM) OF BANKS OF ODS: This issue was discussed in the preparatory segment on Monday, and in a contact group from Monday to Thursday. The contact group considered both technologies and related facilities for the destruction of ODS, along with ESM of ODS banks.

Technologies and related facilities for the destruction of ODS: On Monday, Australia reported on the OEWG-30 consolidation of proposals by Australia and Nigeria, contained in draft decision UNEP/OzL.Pro.22/3, XXII[I], and a contact group was established for further discussion.

During its first session on Monday, delegates in the contact group co-chaired by Annie Gabriel (Australia) and Javier Ernesto Camargo Cubillos (Colombia) highlighted, *inter alia*, the need to define criteria to quantify ODS to be destroyed.

On Tuesday, they discussed a verbal proposal from one party calling on the TEAP to develop criteria for verification of ODS destruction, which was welcomed by the TEAP. Delegates also debated including these criteria, when available, in the Montreal Protocol Handbook, eventually agreeing to request the TEAP to, *inter alia*, "develop criteria that should be used to verify the destruction of ODS in facilities that use appropriate ODS destruction technologies, taking into account the recommended destruction and removal efficiencies for the relevant substance." The reference to the inclusion of the verification criteria in the Handbook was retained in the chapeau of the paragraph. On a preambular reference to the Handbook's code of housekeeping regarding ODS in destruction facilities, delegates agreed to note that the code does not provide a framework that can be used for verification.

On Wednesday morning, delegates finalized their consideration of this issue, agreeing to reference "comprehensive verification criteria." The document was forwarded to the plenary. On Friday, the draft decision on destruction technologies with regard to ODS was forwarded to the high-level segment and adopted.

Final Decision: In the final decision (UNEP/OzL.Pro.22/CRP.8), the MOP requests the TEAP to:

- evaluate and recommend the appropriate destruction and removal efficiency for methyl bromide and to update the destruction and removal efficiency for any other substance already listed in Annex II to the report of MOP-15;
- review the list of destruction technologies adopted by parties, taking into account emerging technologies identified in its 2010 progress report and any other developments in this

sector, and to provide an evaluation of their performance and commercial and technical availability; and

- develop criteria to verify the destruction of ODS at facilities that use approved ODS destruction technologies, taking into account the recommended destruction and removal efficiencies for the relevant substance.

Environmentally sound management of banks of ODS:

On Monday, Australia introduced a consolidated draft decision (UNEP/OzL.Pro.22/3, XXII/[L]) proposed by the EU and Mauritius, which was considered by the contact group on ODS destruction.

Discussion focused on a request to the ExCom, *inter alia*, to continue its efforts to further develop cost-effective projects for the destruction of ODS banks during the next replenishment period and to provide Article 5 parties with the funding necessary to manage ODS banks. Some parties called for the definition of the term “cost-effective,” with others noting that such a definition would be difficult to formulate given the time constraints. Parties discussed the MLF guidelines and, noting that the term “cost-effective” was dealt with in the guidelines, agreed to delete this reference. Delegates also agreed to delete a similar paragraph calling on the ExCom to consider the funding of cost-effective destruction projects during the next replenishment period.

Delegates went on to discuss the MLF-funded demonstration projects in relation to the aforementioned request to the ExCom. Some developed country delegates were concerned that the request to the ExCom to further its efforts on ODS bank destruction projects at this point may be preemptive, as the “learn by doing” demonstration projects have not yet been executed. One developing country party stressed that as the projects were still pending, and therefore no feedback had been received, there was a need to maintain the request to the MLF for assistance to Article 5 parties to fully manage ODS banks, through activities including national inventories of banks, the development of legislative frameworks and strategies for sound waste management. One developed country delegate called for a reference to “further assistance” as opposed to “funding” for Article 5 parties for the management of ODS banks, and delegates agreed.

Delegates then discussed additional funding sources beyond the MLF for the management of ODS banks. Many developed country parties recalled the seminar on the sound management of ODS banks held in July 2010, which identified the Global Environment Facility (GEF) as a funding source, and noted the opportunities for partnership and co-financing that the GEF presents. Disagreeing and calling for removal of all references to the GEF, one developing country party expressed concern that the GEF may give higher priority to other multilateral environment agreements in their current and future replenishments, and had not provided adequate financing for destruction of ODS banks in the past. He stressed that all funding for the destruction of ODS banks should come from the MLF. The Secretariat briefed parties that, although the GEF replenishment is not as “robust as hoped for,” there may still be a small amount of funding available for possible investment in ODS destruction projects if, *inter alia*, persistent organic pollutants (POPs) destruction could be carried out

simultaneously. Trying to break the deadlock, one developed country party suggested inviting parties to explore the many possible opportunities for financial resources and synergies described in the document and in presentations from the seminar for the sound management of ODS banks, but this was not agreed.

On Thursday afternoon, lamenting that no consensus could be reached on the decision, the contact group suspended discussion. On Friday, contact group Co-Chair Daniels reported this to delegates during the plenary of the preparatory segment and no decision was adopted on this issue.

PROPOSED AMENDMENTS TO THE MONTREAL PROTOCOL AND PHASE-OUT OF HFC-23 AS A BY-PRODUCT EMISSION OF THE PRODUCTION OF HCFC-22:

On Monday in plenary, two draft decisions on amendments to the Montreal Protocol to address HFCs were presented by the US, on behalf of Canada and Mexico (UNEP/OzL.Pro.22/5), and the FSM (UNEP/OzL.Pro.22/6).

Emphasizing that HFCs are potent greenhouse gases, the US stressed that including HFCs in the Montreal Protocol would build on efforts of the UNFCCC to address climate change and of the ExCom to provide incentives for low-GWP alternatives to ODS. Mexico added that the amendment aims to assist parties with the requisite technical, financial and institutional support for developing alternatives to HFCs. The FSM underscored that parties have a moral and legal responsibility to address HFCs.

On behalf of Canada and Mexico, the US also introduced a draft decision on the phase-out of HFC-23 as a by-product of HCFC-22 (UNEP/OzL.Pro.22/3, XXII/[M]). He explained the draft decision requests the ExCom to update information on HCFC-22 production facilities and further efforts to implement projects to mitigate HFC-23 emissions, and asks the TEAP and the SAP to study the costs and benefits of HCFC-22 by-product control.

In response, Cuba noted that HFCs are under the mandate of the UNFCCC, and called on delegates not to prejudge decisions on this issue that may be taken at UNFCCC COP 16 in Cancun later this year. India said that discussion of this issue was an attempt to deviate from the Montreal Protocol’s mandate, noting its view that the proposals were recommending “an amalgamation of the Vienna Convention and the UNFCCC.” Stating that the resources for the Montreal Protocol are limited, Argentina objected to the proposed amendment.

General support for the proposals was expressed by the Former Yugoslav Republic of Macedonia, the Philippines, Kenya, and Tuvalu, on behalf of Pacific island countries.

Switzerland, Japan, Australia, Gabon, Armenia, Indonesia, Cameroon and the EU supported discussions on the proposals in a contact group and Venezuela objected to the initiation of a contact group. Brazil, with China, called on parties to consider the proposals submitted in informal consultations only, as HFCs are already covered under the UNFCCC.

Canada recalled the Montreal Protocol’s history of addressing HFCs, and suggested discussing the proposal by Brazil and other Latin American countries on the ExCom’s HCFC guidelines in conjunction with the amendment proposals. These agenda items

were referred to the informal group on low-GWP alternatives, co-chaired by Blaise Horisberger (Switzerland) and Leslie Smith (Grenada).

The informal group convened on Wednesday afternoon and briefly on Thursday. On Wednesday, the group focused its discussion on the proposal by Brazil requesting the TEAP to assess the quantities and types of high-GWP substances that are likely to be phased in as alternatives to HCFCs, as well as to identify the affected sectors and the extent to which the funding guidelines on HCFCs would allow for the selection and financing of low-GWP alternatives to HCFCs by Article 5 parties (UNEP/OzL.Pro.22/CRP.13). Aside from a brief US introduction of its amendment proposal, the group did not initiate specific discussion on this matter, as several parties objected to discussing this, and no decision was adopted by the MOP.

ISSUES RELATED TO EXEMPTIONS FROM ARTICLE 2 OF THE PROTOCOL: Nominations for critical use exemptions for 2011 and 2012: This issue was discussed on Monday in the preparatory segment.

The TEAP presented its final recommendations on critical use exemptions (CUEs), proposed in the Methyl Bromide Technical Options Committee (MBTOC) work plan for 2011, and QPS. They discussed an overview of the final recommendations of the methyl bromide pre-plant soil use and structural and commodity critical use nominations (CUNs) in 2010.

The US outlined its efforts to reduce methyl bromide use, questioned the process by which the MBTOC evaluated the requests for CUEs, and called for increased transparency in MBTOC's review process.

In response to queries from Cuba and the EU on how methyl bromide stockpiles are considered in evaluations of CUE requests from parties, the TEAP clarified that it does not consider stockpiles in its assessments and Executive Secretary González emphasized that parties are responsible for determining how stockpiles are managed.

The NRDC noted that CUEs are sometimes reduced when countries have large stockpiles, and encouraged the reduction of the US's exemption accordingly. He also suggested the US establish a date by which it would end its requests for exemptions.

Co-Chair Díaz then introduced the nominations for CUEs for methyl bromide use, as proposed by the TEAP MBTOC and Canada, and introduced a draft decision on CUEs for methyl bromide for 2011-2012 (UNEP/OzL.Pro.22/CRP.1).

During Friday's plenary, Canada presented a revised draft decision. Cuba requested that the practice of stockpiling of methyl bromide be reviewed and, supported by Venezuela, asked for this to be recorded in the report of the meeting. The draft decision was forwarded from the preparatory segment to the high-level segment, where it was adopted.

Final Decision: In the decision on CUEs (UNEP/OzL.Pro.22/CRP.1/Rev.2), the MOP, *inter alia*, permits production and consumption levels for the agreed critical use categories for 2011, set forth in Table A, and for 2012, set forth in Table D of the annex.

QPS uses of methyl bromide: On Monday, New Zealand reported that OEWG-30 had developed a draft decision on QPS uses of methyl bromide (UNEP/OzL.Pro.22/3, XXII/[N]) and noted that a proposal submitted by the EU had been bracketed.

In a contact group, co-chaired by Robyn Washbourne (New Zealand) and Tri Widayati (Indonesia), delegates discussed a revised draft decision on QPS uses of methyl bromide, proposed by the EU (UNEP/OzL.Pro.22/CRP.3). Several parties expressed concern about a provision in the proposal that requests all parties to implement monitoring procedures to gather available data about the sectors that use methyl bromide for QPS purposes, and to provide those data to the Ozone Secretariat by 31 January 2011. Some questioned the purpose of such a request, as well as the precise data requested. Several parties also disagreed with the proposal for the TEAP to assess the data on methyl bromide use for QPS purposes on a party-by-party basis, noting that this is not the TEAP's mandate. The EU explained that it intended to establish a process in which the TEAP could enter into a dialogue with parties to acquire available data for the assessment. A pre-drafting group was established to conduct informal consultations.

The contact group met again on Wednesday and Thursday. The EU presented a revised draft decision on the subject. Some parties did not agree to references to developing a strategic view on methyl bromide use for QPS, or to encouraging parties to report the main categories of use for methyl bromide. No consensus was reached in the group on these issues, and no decision on QPS uses of methyl bromide was adopted by MOP-22.

Nominations for essential use exemptions for 2011-12: On Monday, delegates considered Bangladesh's nomination of CFCs for MDIs. The TEAP reported its recommendation of 37 tonnes of CFCs for MDIs, requesting that Bangladesh consider the use of alternatives in the manufacture of some pharmaceutical products. Bangladesh requested that the TEAP reconsider its nomination.

Executive Secretary González reported an emergency use exemption of CFC-113 called for by the Dominican Republic. On Tuesday, the Russian Federation presented a draft decision for an exemption for CFC-113 for aerospace applications (UNEP/OzL.Pro.22/CRP.6).

On Wednesday evening during plenary, parties agreed to forward the draft decision on essential uses of CFCs submitted by the Russian Federation to the high-level segment. The draft decision on essential-use nominations for controlled substances for 2011 was also forwarded to the high-level segment. Both decisions were adopted on Friday.

Final Decisions: In the decision on essential use exemptions for the Russian Federation (UNEP/OzL.Pro.22/L.1), the MOP agreed to:

- authorize the production and consumption in 2011 of 100 metric tonnes of CFC-113 in the Russian Federation for essential use exemptions for CFCs in its aerospace industry;
- request the Russian Federation to continue to explore further the possibility of importing CFC-113 for its aerospace industry needs from available global stocks; and
- urge the Russian Federation to continue its efforts on the introduction of alternative solvents and the adoption of newly

designed equipment to complete the phase-out of CFC-113 according to an accelerated time schedule.

In the decision on essential use nominations for controlled substances for 2011 (UNEP/OzL.Pro.22/CRP.14), the MOP decides to, *inter alia*:

- authorize the levels of production and consumption for 2011 necessary to satisfy essential uses of CFCs for MDI for asthma and chronic obstructive pulmonary disease;
- request nominating parties to supply to the MTOC information to enable assessment of essential-use nominations; and
- encourage parties with essential use exemptions in 2011 to consider sourcing required pharmaceutical-grade chlorofluorocarbons initially from stockpiles where they are available and accessible.

Laboratory and analytical use exemptions: On Monday, Co-Chair Sirois outlined that the TEAP had recommended that global exemptions be eliminated for 15 laboratory and analytical uses with alternatives, and three uses be exempted. China noted that since no alternative technologies were available in developing countries, exemptions should be considered and a grace period required. China met informally throughout the week to draft a decision on this issue.

On Friday in the preparatory segment, China introduced a draft decision on global laboratory and analytical use exemption, noting the successful consultations that led to the draft. Delegates forwarded it to the high-level segment, where it was adopted.

Final Decision: In the decision (UNEP/OzL.Pro.22/CRP.9/Rev.1), the MOP:

- allows Article 5 parties until 31 December 2011 to deviate from the existing laboratory and analytical use bans in individual cases, where a party considers that this is justified, and to ask parties to revisit this issue at MOP-23; and
- requests parties to continue to investigate domestically the possibility of replacing ODS for laboratory and analytical uses.

Issues relating to the use of ODS as process agents: On Monday, Co-Chair Sirois noted that OEWSG-30 considered the TEAP's recommendation on possible deletions of some uses from tables of approved process agent uses. Canada introduced a draft decision on the use of controlled substances as process agents (UNEP/OzL.Pro.22/L.2).

On Wednesday evening, parties agreed to forward the draft decision on process agents to the high-level segment, which adopted the draft decision.

Final Decision: In the decision (UNEP/OzL.Pro.22/L.2), the MOP agrees, *inter alia*:

- that quantities of controlled substances produced or imported by Article 5 parties for use as process agents in plants and installations in operation before 1 January 1999 should not be taken into account in the calculation of production and consumption from 1 January 2011 onwards, provided that emissions of these substances are within the levels defined in the updated Table B of decision X/14; and
- to request each party to report to the Ozone Secretariat, by 15 March 2011, if possible, or 1 July 2011 at the latest, the specific applications for which it uses controlled substances as process agents, and to continue to report such information in the context of the annual reports required by decision X/14.

SPECIAL STATUS OF HAITI: On Tuesday, preparatory segment Co-Chair Díaz recalled that at OEWSG-30 Grenada and Saint Lucia had proposed a draft decision calling all parties to assist Haiti in its control of ODS (UNEP/OzL.Pro.22/3, XXII[O]). The US supported the intent of the proposal, but said it would consult with concerned parties on some issues. During the evening plenary on Tuesday, the US and Grenada reported a successful conclusion of these discussions. A draft decision on the situation of Haiti was forwarded to the high-level segment on Wednesday, and adopted without amendment on Friday.

Final Decision: In the final decision (UNEP/OzL.Pro.22/CRP.12), the MOP decides to, *inter alia*:

- encourage all parties to assist Haiti by controlling the export of ODS and ODS-dependent technologies to Haiti through the control of trade;
- request the ExCom, when considering project proposals for Haiti, to take into account the special situation of Haiti and the special difficulties that it may pose in respect of the phase-out of ODS, including in particular the accelerated phase-out of HCFCs;
- request the implementing agencies to consider providing appropriate assistance to Haiti in the areas of institutional strengthening, capacity building, data collection and monitoring and control of trade in ODS; and
- request implementing agencies to consider providing appropriate assistance for the development of a strategy to achieve the reorganization of Haiti's national ozone unit and in the continuation of its efforts to report to the Ozone Secretariat data on consumption of ODS.

COMPLIANCE AND DATA-REPORTING ISSUES:

Issues under this agenda item were considered by the preparatory segment on Tuesday and a draft decision on the work of the ImpCom was forwarded to the high-level segment. After discussions of the treatment of ODS stockpiles relative to compliance, a draft decision was forwarded to the high-level segment on Wednesday.

Treatment of stockpiled ODS relative to compliance:

On Tuesday, Co-Chair Sirois recalled that OEWSG-30 decided to forward to MOP-22 a draft decision on the treatment of stockpiled ODS relative to compliance (UNEP/OzL.Pro.22/3, XXII[P]).

The EU reported on consultations held with concerned parties on the draft decision and presented a revised draft. The US said the revised draft was closer to something they could support.

Jordan said that the draft decision should include the provision of finance and technologies to Article 5 countries for addressing the issue of ODS stockpiles. Parties consulted informally on the draft decision. On Wednesday, delegates forwarded the draft decision to the high-level segment, and it was adopted without amendment on Friday.

Final Decision: In the final decision (UNEP/OzL.Pro.22/CRP.10), the MOP, *inter alia*:

- reminds all parties to report all production of ODS, whether intended or unintended, to enable the calculation of their production and consumption;
- requests parties, when reporting data, to identify any excess production and consumption that is a consequence of ODS production in the reporting year for: domestic destruction or

export for destruction in a future year, domestic feedstock use or export for that use in a future year, and export to meet basic domestic needs of developing countries in a future year; and

- requests the Secretariat to continue to maintain a consolidated record of the above cases to incorporate that record in the documentation prepared for each meeting of the ImpCom.

Presentation and consideration of the work and

recommended decisions of the ImpCom: During the evening plenary on Tuesday, Elizabeth Munzert (Germany), on behalf of ImpCom President Ezzat Lewis (Egypt), presented the report and the decisions of the 45th meeting of the ImpCom under the Non-Compliance Procedure (UNEP/OzL.Pro/ImpCom/45/4). The report (UNEP/OzL.Pro.22/CRP.4), contains, *inter alia*: a presentation by the Secretariat of the MLF on relevant decisions of the ExCom, and on activities carried out by implementing agencies, namely UNDP, UNEP and UNIDO, to facilitate parties' compliance; follow-up on previous decisions of the parties and recommendations of the ImpCom on issues related to non-compliance; draft plans of action to return to compliance from parties including Bangladesh, Chile, Kenya, and Nepal; and consideration of other non-compliance issues arising out of the data report.

The report details, *inter alia*: possible non-compliance in trade with non-parties (Article 4 of the Montreal Protocol); consideration of the report of the Secretariat on parties that have established licensing systems; and information on compliance provided by parties present at the invitation of the ImpCom.

The report also contains draft decisions on, among others, non-compliance by Saudi Arabia, Vanuatu, Republic of Korea and Singapore forwarded to the MOP by the 44th meeting of the ImpCom.

Final Decision: MOP-22 adopted the ImpCom report (UNEP/OzL.Pro.22/CRP.4), including its decisions.

STATUS OF RATIFICATIONS: On Friday, MOP-22 President Reeves introduced the status of ratifications of the Protocol and its amendments. He urged all the parties that have not ratified the amendments to the Montreal Protocol to do so as soon as possible.

Final Decision: In the decision on ratification of the Montreal Protocol and Vienna Convention (UNEP/OzL.Pro.22/L.2), the MOP urges all states that have not yet done so to ratify, approve or accede to the amendments to the Montreal Protocol, taking into account that universal participation is necessary to ensure the protection of the ozone layer.

DATES AND VENUE FOR MOP-22: In Friday's closing plenary, MOP-22 President Reeves announced that MOP-23 would be held in Bali, Indonesia, from 14-18 November 2011.

CLOSING PLENARY

The closing plenary was held on Friday evening. Immediately prior to this, the preparatory segment reconvened and agreed to forward several outstanding decisions to the high-level segment. Co-Chair Sirois thanked delegates for their dedicated work in the preparatory segment.

In the opening of the closing plenary, MOP-22 President Reeves introduced the draft MOP-22 report (UNEP/OzL.Pro.22/L.1 and Add.1). China, supported by India and Brazil, objected that in reflecting the work of the informal group on low-GWP alternatives, the draft report deviated significantly

from the text agreed to by the informal group. Parties agreed to revise the report to state "an informal group was established by the co-chairs of the preparatory segment for discussing items 8, 9 and 5c of the agenda of the preparatory segment of MOP-22. The group organized its discussions by starting to consider the draft decision under 5c about an assessment of the HCFCs guidelines approved by the ExCom. As the discussions could not be completed during time available, the group decided to continue to discuss at OEWG-31."

Robyn Washbourne, co-chair of the contact group on QPS uses of methyl bromide, added text to the report on QPS indicating the group ran out of time to consider the new text of the draft decision, and was not able to reach consensus on the way forward. With the aforementioned amendments and some other, factual amendments, MOP-22 adopted the report.

Prior to the close of plenary, Mexico introduced a declaration on the global transition away from HCFCs and CFCs to environmentally-sound alternatives, and declares the signatories intent to pursue further action under the Montreal Protocol aimed at transitioning the world to environmentally sound alternatives to HCFCs and CFCs. He highlighted the "open declaration" had been signed by 91 parties.

MOP-22 President Reeves thanked the Government of Thailand for hosting MOP-22, and the Secretariat and delegates for their hard work. He highlighted that the Montreal Protocol is the most successful multilateral environmental agreement in history, and gavelled the meeting to a close at 8:11 pm.

A BRIEF ANALYSIS OF MOP-22

OZONE IN THE BALANCE: SEARCHING FOR CLEAR SKIES

Against a backdrop of Buddhist temples and hazy skies, MOP-22 of the Montreal Protocol convened in Bangkok poised to determine the future direction of the "most successful" of the multilateral environmental agreements (MEAs). With an agenda laden with heavy questions of hydrofluorocarbons (HFCs) and how to manage banks of collected ozone-depleting substances (ODS), delegates understood that these questions would influence not only the decisions taken at the MOP, but also the continued relevance of the Protocol in addressing critical environmental threats. The debates at MOP-22 revealed the major challenge currently facing the Montreal Protocol: determining its future direction and scope.

With discussions stalling on HFCs, reluctance to commit additional funds to activities outside the direct realm of compliance and unresolved debates on overlapping mandates across MEAs, participants described the meeting as "slow-paced" compared with past MOPs. With work on the accelerated HCFC phase-out underway, and some parties unwilling to move further on the central ODS phase-out activities of the Protocol, such as QPS uses of methyl bromide, parties wrestled with the question of whether to focus on existing commitments (and let the Protocol phase itself out) or to increase its scope by taking on new obligations by addressing additional and interrelated issues like HFCs.

The continued success of the Protocol hinges on whether it can avoid highly political debates and secure adequate financing for its activities. This analysis considers MOP-22 in light of these central issues, and looks ahead to how the outcomes of the meeting will influence the Protocol in the years to come.

CLOUDED DEBATES: SIDE-LINED BY CLIMATE POLITICS?

Much of the success of the ozone regime has been its ability to side-step political deadlock and respond to science in its search for alternatives to ODS. This technical dimension of the Protocol has been exemplified by its strong support for and attention to the work of the Technical and Economic Assessment Panel (TEAP), and the commitment parties have had to protecting the TEAP's apolitical character. As parties consider the inclusion of HFCs (climate-impacting gases) in the ozone regime, though, this approach is challenged as parties have become swept into the political debates of the climate regime. The proposals considered at MOP-22 on HFCs brought this challenge to the fore.

Owing in part to HFC-alternatives replacing HCFCs, as countries strive to meet the targets of the accelerated HCFC phase-out, a 2009 prediction by the Institute for Governance and Sustainable Development suggests that (without counterbalancing policies), HFC emissions are likely to rise by roughly 300%, to 1.2-1.4 Gt of CO₂-equivalent (CO₂-eq), by 2015, and to 5.5-8.8 Gt CO₂-eq by 2050. The climate implications of these high-global warming potential (GWP) substances led the US, Canada, Mexico and the Federated States of Micronesia (FSM) to advocate for a phase-down of HFCs under the Protocol. The proponents suggest that the current trend of replacing HCFCs with HFCs risks repeating past mistakes, such as when HCFC-substitutes for CFCs had to be phased out, at great cost to parties, when their negative effects were discovered. They suggest a move to regulate HFCs would prevent a similar situation from occurring again, avoid further exacerbating climate change, and could propel countries forward in the search for more climate- and ozone-friendly alternatives.

Efforts to introduce amendments to the Protocol to include HFCs were first tabled at MOP-21, but were withdrawn due to strong opposition. At MOP-22, India, China and Brazil remained united in their resistance to including HFC-controls under the Protocol, underlining that HFCs are not ODS and thus remain outside the scope of this regime, preferring to address this under the UNFCCC, and claiming parties had other priorities that were more central to the mandate of the Protocol.

In what some saw as a political bid to leverage discussions on HFCs, parties agreed to convene an informal group to discuss a draft decision from Brazil and other Latin American countries requesting a TEAP study on support for low-GWP alternatives under the MLF's HCFC guidelines along with the amendment proposals. However, the informal group spent most of its time considering the HCFC guidelines decision. Any potential momentum this could have provided for discussion on low-GWP alternatives was lost when Brazil suggested postponing discussions on its draft decision to OEWG-31, and further discussions of the informal group were curtailed.

Four issues prevented progress on HFCs: the availability of low-GWP ODS alternatives, financial concerns over HCFC phase-out commitments, perverse incentives under the Clean Development Mechanism (CDM), and upcoming climate change talks in Cancun. While the former two are within the purview of the Montreal Protocol, and could be addressed through additional work on technology and commitment to "sufficient" financing, the latter two fall directly under the climate regime. The timing of Montreal Protocol meetings, just before climate change conferences, once again stalled negotiations on HFCs, and may continue to do so in the future if delegates insist on waiting for the UNFCCC to make progress on regulating these substances.

By the end of MOP-22, it was clear that the HFC agenda had stalled once again. As previously acceptable language referring to low-GWP alternatives to HFCs was removed from the decision on the terms of reference for a study of the replenishment of the MLF, some ventured that perhaps the agenda may even have moved backwards. Others suggested the situation may be more nuanced, citing the growing number of countries supporting discussion of low-GWP alternatives under the Protocol, with 91 countries signing on to a US-led declaration (presented by Mexico in the closing plenary, and noted in the report of the meeting) indicating their intent to pursue further action under the Montreal Protocol aimed at transitioning the world to environmentally-sound alternatives to HCFCs and CFCs. This groundswell of support indicates that discussions phrased more generally on environmentally-sound alternatives, rather than HFCs, might gain more traction at future MOPs, although opposition from India, China and Brazil is likely to continue to block formal discussions on amending the Protocol.

Nuances aside, concerns that the ozone regime has become "infected" by the climate regime were widespread. Unless parties are given a clear mandate under the climate regime to address these cross-cutting issues, or take a decision to do so based on the scientific advice of the TEAP regarding ozone-impacts of climate change, the Montreal Protocol risks mimicking the politics of the climate change negotiations.

FINANCIAL HOLES AND AN ATMOSPHERE OF RELUCTANCE

Beyond the politics over the scope of the Protocol, financing proved an underlying and cross-cutting source of tension at MOP-22. This was particularly central to debates on ODS bank destruction and management.

With pilot projects underway for the destruction of ODS banks, parties considered multiple draft decisions on destruction facilities and technologies, and environmentally-sound management of these banks. They reached an impasse as parties disagreed on funding ODS bank activities through the MLF versus external sources like the GEF, or voluntary carbon markets (by earning carbon credits through the destruction of easily-accessible ODS). While some stressed that ODS destruction is not a compliance requirement under the Protocol, and thus outside the ambit of the MLF, others cautioned that the successes realized by the Protocol would be undermined by the ongoing release of ODS from these banks unless measures were taken to address their destruction. Reports from the IPCC and TEAP indicate that ODS banks hold 16-17 Gts CO₂-eq in

2010, representing a loss of 4-5 Gts CO₂-eq since 2002, and reflecting the ongoing leakage of these ODS into the atmosphere. While many delegates recognized that progress in international environmental regimes can take time, others suggested that time "is not on our side," citing TEAP predictions that easily accessible banks will have released most of the gases into the atmosphere by 2020, effectively precluding the opportunity for destruction.

In several delegates' views, the Protocol's continued success will hinge in part on how it manages to address funding for existing commitments as well as associated issues that are not mandated in compliance obligations but nonetheless have practical implications for ozone depletion and the environment.

HAZY SKIES AHEAD

Many walked away from MOP-22 disappointed by halting progress, and concerned about the implications for the ozone layer due to failures to make any progress on ODS bank destruction. By refusing to formally discuss HFCs, or consider language in decisions on information-gathering on HFCs and low-GWP alternatives, others suggested the Protocol had fallen victim to politics and stepped backwards.

Others, though, were optimistic that the Protocol was still on the right track. Noting that the meeting's agenda and HFC proposals may have been "too ambitious," and acknowledging that "progress takes time," they pointed to support for the US' declaration on HFCs from even previously-hesitant countries, such as Kuwait and Egypt, as an indication of the shifting positions on the need to include climate change-related issues under the Montreal Protocol.

With the futures of ODS banks and HFCs uncertain at the close of the meeting, and adequate financing for activities under the Protocol continuing to be a stumbling block, MOP-22 highlighted the challenges facing the international community in dealing with the fragmentation of global environmental governance. With the proliferation of MEAs in recent years, parties are under increasing pressure to allocate and prioritize finite funds, while determining how to address overlapping issues. The future of the Montreal Protocol will be determined, in part, by how the parties resolve this competition among MEAs and agree to work together to replicate past successes to address new challenges.

UPCOMING MEETINGS

62nd Meeting of the Executive Committee of the Multilateral Fund for the Montreal Protocol: The Executive Committee is expected to continue consideration of matters related to the phase-out of HCFCs and other remaining ODS, as well as financial planning and consideration of the three-year business plans of the bilateral and implementing agencies, and agencies' work programmes. **dates:** 29 November - 3 December 2010 **location:** Montreal, Canada **contact:** Multilateral Fund Secretariat **phone:** +1-514-282-1122 **fax:** +1-514-282-0068 **email:** secretariat@unmfs.org **www:** <http://www.multilateralfund.org/>

UNFCCC COP 16 and COP/MOP 6: The 16th session of the Conference of the Parties (COP) to the UNFCCC and the sixth session of the Conference of the Parties serving as the

Meeting of the Parties to the Kyoto Protocol (COP/MOP) will be held together with the 33rd meetings of the SBI and SBSTA. **dates:** 29 November - 10 December 2010 **location:** Cancun, Mexico **contact:** UNFCCC Secretariat **phone:** +49-228-815-1000 **fax:** +49-228-815-1999 **email:** secretariat@unfccc.int **www:** http://unfccc.int/meetings/cop_16/items/5571.php

41st International Conference on Heating, Air Conditioning and Refrigeration: Key themes for this meeting on heating, air conditioning and refrigeration include zero energy buildings, building energy efficiency and renewable energy sources. **dates:** 1-3 December 2010 **location:** Belgrade, Serbia **contact:** Society for Heating, Refrigerating and Air-Conditioning **phone:** +318-11-3230-041 **fax:** +381-11-3231-372 **email:** office@kgh-hvac.rs **www:** <http://www.kgh-kongres.org>

Montreal Protocol Refrigeration Technical Options Committee: The Refrigeration TOC will meet to consider technical and scientific issues related to refrigeration under the Montreal Protocol. **dates:** 13-14 December 2010 **location:** Prague, Czech Republic **phone:** +254-20-762-3851 **fax:** +254-20-762-4691 **email:** ozoneinfo@unep.org **www:** http://ozone.unep.org/Events/Indicative_List_TEAP_TOCs_Meetings-2010.shtml

Second Session of the INC to Prepare a Global Legally Binding Instrument on Mercury: This meeting is scheduled to be the second of five Intergovernmental Negotiating Committee (INC) meetings to negotiate a legally binding instrument on mercury. **dates:** 24-28 January 2011 **location:** Chiba, Japan **contact:** UNEP Mercury Programme **phone:** +41-22-917-8183 **fax:** +41-22-797-3460 **email:** mercury@unep.org **www:** <http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC2/tabid/3468/language/en-US/Default.aspx>

Twenty-sixth session of the UNEP Governing Council/Global Ministerial Environment Forum: The 26th session of the Governing Council/Global Ministerial Environment Forum (GC/GMEF) of the UN Environment Programme (UNEP) is scheduled to convene from 21-25 February 2011, at the UN Office in Nairobi, Kenya. In pursuance of General Assembly resolution 53/242 (Report of the Secretary-General on environment and human settlements) of 28 July 1999, the Governing Council constitutes the annual ministerial-level global environmental forum in which participants gather to review important and emerging policy issues in the field of the environment. **dates:** 21-25 February 2011 **location:** Nairobi, Kenya **contact:** Secretary, Governing Bodies, UNEP **phone:** +254-20-762-3431 **fax:** +254-20-762-3929 **email:** sgc.sgb@unep.org **www:** <http://www.unep.org/resources/gov/overview.asp>

CSD Intergovernmental Preparatory Meeting: The Intergovernmental Preparatory Meeting for the 19th session of the Commission on Sustainable Development (CSD) will negotiate policy options related to the thematic cluster for the CSD 18-19 cycle: transport, chemicals, waste management, mining and the Ten-Year Framework of Programmes on Sustainable Consumption and Production Patterns. **dates:** 28 February - 4 March 2011 **location:** United Nations Headquarters, New York **contact:** UN Division for Sustainable Development **phone:** +1-212-963-8102 **fax:** +1-212-963-4260 **email:** dsd@un.org **www:** http://www.un.org/esa/dsd/csd/csd_csd19.shtml

Rotterdam Convention Chemical Review Committee:

The seventh meeting of the Chemical Review Committee (CRC 7) will discuss candidate chemicals to be included under the Rotterdam Convention. **dates:** 28 March - 1 April 2011 **location:** Rome, Italy **contact:** Rotterdam Convention Secretariat **phone:** +41-22-917-8296 **fax:** +41-22-917-8082 **email:** pic@pic.int **www:** <http://www.pic.int/>

Sources/Sinks Alternative to Outside Air for Heat Pump & AC Techniques and International Sorption Heat Pump Conference:

These meetings will be held back-to-back, bringing together heat sink and heat source research, development, and experience with heat pumping and refrigeration technologies. **dates:** 5-8 April 2011 **location:** Padua, Italy **contact:** Conference Secretariat **phone:** +39-02-6747-9270 **fax:** +39-02-6747-9262 **email:** info@aicarr.org **www:** <http://www.aicarr.org/Pages/PadovaIIR2011/home.aspx>

4th Event on Ammonia Refrigeration Technology: This meeting will discuss ammonia technology for the refrigeration sector. **dates:** 14-16 April 2011 **location:** Ohrid, Macedonia **contact:** Risto Ciconkov **phone:** +389-23-064-762 **fax:** +389-23-099-298 **email:** ristoci@ukim.edu.mk **www:** http://www.mf.edu.mk/web_ohrid2011/ohrid-2011.html

Fifth Meeting of the Conference of the Parties to the Stockholm Convention: The fifth meeting of the Conference of the Parties to the Stockholm Convention will consider the POPRC's recommendation to list endosulfan in Annex A, with exemptions. **dates:** 25-29 April 2011 **location:** Geneva, Switzerland **contact:** Stockholm Convention Secretariat **phone:** +41-22-917-8729 **fax:** +41-22-917-8098 **email:** ssc@unep.ch **www:** <http://www.pops.int>

CSD 19: This policy-year session of the Commission on Sustainable Development (CSD) will negotiate policy options related to the thematic cluster for the CSD 18-19 cycle: transport, chemicals, waste management, mining and the Ten-Year Framework of Programmes on Sustainable Consumption and Production Patterns. **dates:** 2-13 May 2011 **location:** United Nations Headquarters, New York **contact:** UN Division for Sustainable Development **phone:** +1-212-963-8102 **fax:** +1-212-963-4260 **email:** dsd@un.org **www:** http://www.un.org/esa/dsd/csd/csd_csd19.shtml

Fifth Meeting of the Conference of the Parties to the Rotterdam Convention: The fifth meeting of the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade will meet in June. **dates:** 20-24 June 2011 **location:** Geneva, Switzerland **contact:** Rotterdam Convention Secretariat **phone:** +41-22-917-8296 **fax:** +41-22-917-8082 **email:** pic@pic.int **www:** <http://www.pic.int/>

OEWG-31: The thirty-first meeting of the Open-Ended Working Group (OEWG-31) of the parties to the Montreal Protocol on Substances that Deplete the Ozone Layer is tentatively scheduled to take place in Geneva, Switzerland, in mid-2011. **dates:** to be confirmed **location:** Geneva, Switzerland **phone:** +254-20-762-3851 **fax:** +254-20-762-4691 **email:** ozoneinfo@unep.org **www:** <http://ozone.unep.org>

23rd International Congress of Refrigeration (ICR2011):

This meeting, with the theme "Refrigeration for Sustainable Development," will bring together experts in the field of

refrigeration and refrigeration technology on issues including cryophysics, thermodynamics, energy recovery, and safety. **dates:** 21-26 August 2011 **location:** Prague, Czech Republic **contact:** Ladislav Cervinka **email:** icaris@icaris.cz **www:** <http://www.icr2011.org>

Tenth meeting of the Conference of the Parties to the Basel Convention: The tenth meeting of the Conference of the Parties to the Basel Convention is tentatively scheduled to take place in Colombia. **dates:** 17-21 October 2011 **location:** Cartagena, Colombia **contact:** Basel Convention Secretariat **phone:** +41-22-917-8212 **fax:** +41-22-797-3454 **email:** sbc@unep.org **www:** <http://www.basel.int/meetings/meetings.html>

MOP-23: The twenty-third Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (MOP-23) and ninth Meeting of the Conference of the Parties to the Vienna Convention for the Protection of the Ozone Layer is tentatively scheduled to take place in Bali, Indonesia, from 14-18 November 2011. **dates:** 14-18 November 2011 **location:** Bali, Indonesia **phone:** +254-20-762-3851 **fax:** +254-20-762-4691 **email:** ozoneinfo@unep.org **www:** <http://ozone.unep.org>

GLOSSARY

ASG	Assistant Secretary-General
CFC	Chlorofluorocarbon
CUE	Critical-use exemption
CUN	Critical-use nomination
EEAP	Environmental Effects Assessment Panel
ESM	Environmentally-sound management
ExCom	Executive Committee
FSM	Federated States of Micronesia
GEF	Global Environment Facility
GWP	Global warming potential
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
HPMP	HCFC Phase-out Management Plan
ImpCom	Implementation Committee
MBTOC	Methyl Bromide Technical Options Committee
MDI	Metered dose inhaler
MEA	Multilateral environmental agreements
MLF	Multilateral Fund
MOP	Meeting of the Parties
ODS	Ozone depleting substance
OEWG	Open-ended Working Group
QPS	Quarantine and preshipment
SAP	Scientific Assessment Panel
TEAP	Technology and Economic Assessment Panel
TOC	Technical Options Committee
ToR	Terms of Reference
UNFCCC	UN Framework Convention on Climate Change



Biodiversity Policy & Practice

A Knowledgebase of UN and Intergovernmental Activities Addressing International Biodiversity Policy



The International Institute for Sustainable Development (IISD) is pleased to announce the launch of

Biodiversity Policy & Practice:

A Knowledgebase on UN and Intergovernmental Activities Addressing International Biodiversity Policy

Biodiversity-L.iisd.org

Biodiversity Policy & Practice is a knowledge management project that will track UN and intergovernmental activities related to international biodiversity policy. It is managed by the [International Institute for Sustainable Development \(IISD\) Reporting Services](http://www.iisd.org).

The launch of **Biodiversity Policy & Practice** coincides with the 10th meeting of the Conference of the Parties (COP 10) to the Convention on Biological Diversity (CBD), which is convening in Nagoya, Japan, on 18-29 October 2010.

Information on United Nations activities is provided in cooperation with the UN system agencies, funds and programmes through the [United Nations System Chief Executives Board for Coordination](http://www.un.org/News/Press/docs/2009/090901.htm) (CEB) Secretariat.

All news articles on **Biodiversity Policy & Practice** are researched and produced by our [team of thematic experts](#), resulting in all original content.

Features of the website include:

- A knowledgebase of summaries of activities (publications, meetings, statements or projects) by a range of actors, with the option to search by several categories (region, actor, action, issue and implementation mechanism);
- An archive of all posts on the site, organized by date;
- A clickable world map, enabling you to view the latest biodiversity policy news by region (Africa, Asia, Europe, Latin America & Caribbean, Near East, North America, and South West Pacific);
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- A Calendar of upcoming intergovernmental events related to international biodiversity policy;
- A link to our Biodiversity iCalendar, which automatically updates your own calendar program with upcoming biodiversity events; and
- A link to our RSS feed.

Start-up funding for Phase I of Biodiversity Policy & Practice has been provided by the [Global Environment Facility](http://www.gefworld.org).

For further information on this initiative or to provide us with information about your biodiversity-related activity, please contact Faye Leone, Content Editor, at faye@iisd.org.



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