

SUMMARY OF THE TWENTY-NINTH MEETING OF THE OPEN-ENDED WORKING GROUP OF THE PARTIES TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER: 15-18 JULY 2009

The twenty-ninth meeting of the Open-ended Working Group (OEWG-29) of the parties to the Montreal Protocol on Substances that Deplete the Ozone Layer convened in Geneva, Switzerland, from 15-18 July 2009. Over 450 delegates representing governments, UN agencies, non-governmental organizations, and industry interests attended.

OEWG-29 was preceded by the Workshop on the Environmentally Sound Management of Banks of Ozone Depleting Substances (ODS), held 13 July 2009, and the Dialogue on High-Global Warming Potential (GWP) ODS Alternatives, held 14 July 2009. At OEWG-29, delegates considered several issues arising from the 2009 Progress Report of the Technology and Economic Assessment Panel (TEAP), including on: a campaign production for CFC metered-dose inhalers (MDIs); a review of nominations of essential use exemptions for 2010 and 2011; a review of nominations for methyl bromide critical-use exemptions for 2010 and 2011; a discussion of the interim report of the methyl bromide quarantine and pre-shipment (QPS) applications Task Force; and laboratory and analytical use exemptions. Parties also discussed the treatment of stockpiled ODS relative to compliance, a proposed evaluation of the Multilateral Fund, and institutional strengthening of national ozone units. OEWG-29 considered a proposal by Mauritius and the Federated States of Micronesia to amend the Montreal Protocol to collect and destroy ODS banks and to regulate the phase-down of HFCs.

Extensive contact group discussions were held on ODS banks and on high-GWP ODS alternatives, including HFCs and consideration of the proposed amendments. At the conclusion of OEWG-29, delegates were upbeat, praising the open and constructive dialogue on HFCs, and looking forward to further progress on the issue at MOP-21 and in December at UNFCCC COP-15 in Copenhagen.

A BRIEF HISTORY OF THE OZONE REGIME

Concerns that the Earth's stratospheric ozone layer could be at risk from chlorofluorocarbons (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

IN THIS ISSUE

| | |
|---|----|
| A Brief History of the Ozone Regime | 1 |
| OEWG-29 Report | 3 |
| Matters relating to issues covered in the 2009 TEAP Progress Report | 3 |
| Environmentally Sound Management of ODS Banks .6 | |
| Report of the Dialogue on High-GWP ODS Alternatives. | 9 |
| Treatment of Stockpiled ODS Relative to Compliance. | 12 |
| Other Matters | 12 |
| Closure of the Meeting. | 13 |
| A Brief Analysis of OEWG-29. | 13 |
| Upcoming Meetings | 15 |
| Glossary | 15 |

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adopted. The Convention called for cooperation on monitoring, research and data exchange, but did not impose obligations to reduce the use of ozone-depleting substances (ODS). The Convention now has 195 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 use of these ODS before taking on commitments. The Protocol currently has 195 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, 192 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, 189 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, 175 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, 156 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, Czech Republic, in November 2004. Work on methyl bromide exemptions for 2006 was not completed and parties decided to hold a second Ex-MOP. 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 the replenishment of the MLF with US\$470.4 million 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 Technology 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 critical use exemptions for methyl bromide; and compliance and reporting issues.

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.

OEWG-29 REPORT

The twenty-ninth session of the Open-ended Working Group (OEWG-29) was opened on Wednesday, 15 July, by Martin Sirois (Canada), who co-chaired the meeting with Maqsood Muhammad Akhtar (Pakistan).

Marco González, Executive Secretary, Ozone Secretariat, welcomed delegates to the OEWG, provided a historical perspective on the Protocol's work, and highlighted the co-benefits of ozone protection and climate change. González outlined the collaboration between the Ozone Secretariat and the UN Framework Convention on Climate Change (UNFCCC), the Strategic Approach to International Chemicals Management (SAICM), the Secretariats of the Basel and Stockholm Conventions, and predicted these collaborations would pay significant dividends. He also highlighted: that the Montreal Protocol now enjoys near universal ratification, with only Timor Leste left to ratify; the importance of the fifth replenishment of the Global Environment Facility (GEF) for the work of the Protocol; and the upcoming milestone of the phase-out of non-exempted uses of chlorofluorocarbons (CFCs) and carbon tetrachloride (CTC) in developing countries.

Co-Chair Akhtar introduced the provisional agenda (UNEP/OzL.Pro.WG.1/29/1). With the additions of a proposal by Canada to evaluate the Multilateral Fund (MLF) and a proposal from Brazil on institutional strengthening, the agenda was adopted. Co-Chair Sirois introduced the organization of work and delegates adopted it without amendment.

During OEWG-29, delegates convened daily in plenary, contact groups and informally to make progress on the agenda. This summary report is organized according to the agenda of the meeting.

MATTERS RELATING TO ISSUES COVERED IN THE 2009 TEAP PROGRESS REPORT

On Wednesday, 15 July, delegates began consideration of the agenda item on matters relating to issues covered in the 2009 progress report by the Technology and Economic Assessment Panel (TEAP). After the presentations, delegates raised questions

and made comments on issues in the TEAP progress report, to which members of the TEAP and Technical Options Committees (TOCs) responded.

TEAP AND TOC BRIEFINGS: TEAP Progress Report: Helen Tope (Australia), Co-Chair of the Medical Technical Options Committee (MTOC), introduced the May 2009 TEAP Progress Report. Regarding essential use nominations for CFC-based metered dose inhalers (MDIs), and noted that although the nominations from Article 5 parties were of a good standard, their evaluation was difficult due to insufficient essential data regarding availability and affordability of alternatives in relevant markets. With regard to quantities needed for exports, she emphasized that the main interest of the MTOC was to ensure the safety of patients who cannot afford CFC-free alternatives.

David Catchpole (UK), Co-Chair of the Halons Technical Options Committee (HTOC), highlighted: regarding halon-1211, concern about meeting the future needs of the aviation and military sectors; with regard to halon-1301, the difficulties raised for some Article 5 parties with the required banning of all imports; and regarding halon-2402, regional problems in the military and aviation sectors, with users having difficulties meeting their demand. He also highlighted that the aviation sector has a long term need for all three halons, and that although they do not currently appear to be experiencing shortages, the halons are becoming more difficult to source.

Lambert Kuijpers (Netherlands), Co-Chair of the Refrigerants, Air Conditioning and Heat Pumps Technical Options Committee (RTOC), presented on the scoping study addressing alternatives to hydrochlorofluorocarbons (HCFCs) in the refrigeration and air-conditioning sectors in Article 5 parties operating under special conditions, notably high temperatures.

Chemicals Technical Options Committee (CTOC): Ian Rae (Australia), CTOC Co-Chair, highlighted: CTOC's recommendation to add three uses of controlled substances as process agents; and four case studies on the laboratory and analytical uses of ozone-depleting substances (ODS).

Flexible and Rigid Foams Technical Options Committee (FTOC): Miguel Quintero (Colombia), FTOC Co-Chair, reported on progress, explaining that in non-Article 5 parties, hydrocarbon technologies are becoming dominant for foams. He highlighted pilot projects on methylformate, methylide and supercritical CO₂ foam spray.

Halons Technical Options Committee: Daniel Verdonik (US), HTOC Co-Chair, highlighted new developments relating to: a new specialized flame-retardant paint containing halon-2402; ten new plants in China manufacturing the pesticide fipronil using halon-1301 as a feedstock; a delay in finalizing annexes under the International Civil Aviation Organization (ICAO) to require the use of halon alternatives in civil aircrafts; and recent monitoring and emissions data.

Methyl Bromide Technical Options Committee (MBTOC): MBTOC Co-Chair Mohamed Besri (Morocco) provided an overview of the reduction of methyl bromide consumption by Article 5 and non-Article 5 parties, and explained that with the exception of Brazil, Latin America remains the region with the highest methyl bromide consumption. Describing progress

in soil treatment, he said registration of new products such as methyl iodide was important, but long-term studies were also necessary.

On methyl bromide quarantines, structures and commodities, MBTOC Co-Chair Michelle Marcotte (Canada) highlighted that sulfuryl fluoride is a key alternative to methyl bromide, but that it has a high global warming potential (GWP). She highlighted the successful implementation in Belgium and the Netherlands of regulations requiring methyl bromide recapture from quarantine and pre-shipment (QPS) activities.

TEAP and TOC issues: TEAP Co-Chair Jose Pons Pons (Venezuela) outlined TOC organizational issues including the reduced number of technical experts and the urgent request for non-Article 5 governments to fund costs of participation by experts from Article 5 countries.

In the ensuing discussion, delegates considered: the status of adoption of non-hydrofluorocarbon (non-HFC) alternatives in non-Article 5 countries; the commercial application of methyl bromide recapture; the need for technically appropriate alternatives to methyl bromide for high-moisture dates; and the alternatives to HCFCs in insulating foam suitable for small and medium sized enterprises in Article 5 countries. The European Community (EC) noted its intention to extend its support to TEAP.

After this introductory discussion, delegates turned to a consideration of the sub-items on the agenda concerning particular issues contained in the TEAP progress report.

REVIEW OF NOMINATIONS FOR 2010 AND 2011 ESSENTIAL-USE EXEMPTIONS: On Wednesday, Co-Chair Sirois invited comments on the nominations for essential-use exemptions for CFCs for MDIs and on the proposed additions to the essential use nominations handbook. Pakistan emphasized the importance of essential use nominations for ensuring the cost-effectiveness and availability of MDIs.

The EC, noting TEAP recommended most of the Article 5 essential use nominations despite the insufficiency of submitted data, stressed the importance of sufficient information to enable TEAP's evaluation of nominations. He supported changes to the handbook to provide improved guidance on this process. The US stressed the need for sufficient information, particularly regarding the justification of the essentiality in export markets, and supported requiring importing countries to certify patient need or the essentiality of amounts.

China noted that Article 5 parties require time to collect the necessary information, and proposed a transition period during which the changes would not be directly applicable but could be used as references. He said the proposed addition to the handbook, which would require certificates to be submitted by importing countries, would be difficult to implement because most countries have not established licensing systems for MDIs, and warned that this requirement would act as a barrier to Article 5 parties obtaining important medication. Australia noted the need to maintain the integrity of the essential use exemptions process and called for more information to be provided before MOP-21, especially regarding Article 5 parties reporting on the essentiality of their imports, prior informed consent, and stockpiles within nominating parties.

Discussion on this issue continued under the agenda item on campaign production of CFCs for MDIs, detailed below.

CONVERTING MDI MANUFACTURING FACILITIES IN ARTICLE 5 PARTIES: On Wednesday, the MLF Secretariat reported on the status of agreements to convert MDI manufacturing facilities in Article 5 parties, and the status of implementation of approved conversion projects. She underlined that the major challenge with project implementation was the transfer of technology and know-how for the development of non-CFC formulations for MDI components. She reported that: funding had been approved for the conversion of CFC MDI manufacturing plants to non-CFC alternatives in twelve Article 5 countries; and that three MDI manufacturing plants would be fully converted and operational by the end of 2009, and a further six plants between 2010 and 2011.

Discussion on this issue continued under the agenda item on campaign production of CFCs for MDIs, detailed below.

CAMPAIGN PRODUCTION OF CFCs FOR MDIs: On Wednesday, Co-Chair Sirois opened discussions on a final campaign production for CFCs for MDIs. The EC requested parties with nominations for essential use production in 2010 to provide information on available stocks and production capacity and noted the EC maintained reservations on a final production campaign, but looked forward to further productive discussion. India noted it would like to produce pharmaceutical CFCs for its own requirements and to fulfill the basic domestic needs of other Article 5 parties. The US supported further discussions on potential design elements necessary for a final campaign.

Co-Chair Sirois proposed, and delegates agreed, to establish a contact group, co-chaired by Robyn Washbourne (New Zealand) and W.L. Sumathipala (Sri Lanka), to address the three agenda items related to CFC-based MDIs, namely: nominations for 2010 and 2011 essential use exemptions, the conversion of MDI manufacturing facilities in Article 5 countries, and campaign production of CFCs for MDIs. The contact group met daily from Wednesday to Saturday. On Saturday, contact group Co-Chair Robyn Washbourne reported on the group's work to plenary.

She explained the contact group considered suggested changes to the nominations handbook, notably on the information to be included to ensure that essentiality of use can be assessed. She noted some participants raised concerns regarding the level of detail in the suggested changes, noting it might be difficult to collect and submit such data, especially regarding the information on exports. She explained a fully bracketed text on the issue would be annexed to the contact group Co-Chairs' report and forwarded to MOP-21.

On campaign production, she noted the urgency of resolving supply issues in the short term, and highlighted the need for further investigation before MOP-21 on the certainty of supply of pharmaceutical-grade CFC to countries with essential use exemptions. She explained another fully bracketed text of a future draft decision on recommendations for essential use exemptions, for both Article 5 and non-Article 5 parties, would be annexed to the report.

Final Outcome: OEWG-29 agreed to annex to its report the contact group Co-Chairs' report and the two bracketed draft decisions for further consideration at MOP-21.

The draft decision on changes to the handbook on essential use nominations lists information to be provided by parties in seeking essential use exemptions, including: an estimate of expected future requirements until the CFC MDI transition is completed, the intended market for sale or distribution of the use, a description of the availability and affordability of alternatives in the intended markets, a description of the status of the development of CFC MDI alternatives, and a summary of the nominating party's national transition strategy.

The draft decision on essential use nominations for controlled substances for 2010 and 2011 authorizes 2010 and 2011 production and consumption levels necessary to satisfy essential uses of CFCs for MDIs. It also includes a bracketed provision granting listed parties full flexibility in sourcing the CFCs required for manufacturing the authorized MDIs either from imports, from domestic producers or from reprocessed stocks. An annex to the bracketed draft decision contains a table detailing the amounts of authorizations for Argentina, Bangladesh, China, Egypt, India, Iran, Pakistan, the Russian Federation, Syria and the US.

CUE NOMINATIONS FOR 2010 AND 2011: On Wednesday, the Co-Chairs of the MBTOC presented an interim report on MBTOC's review of nominations for critical use exemptions (CUEs) for methyl bromide.

Marta Pizano (Colombia) provided an overview of recommended nominations, underscoring the downward trend in amounts nominated for CUEs from 2005 to 2011. Ian Porter (Australia) presented the nominations for pre-plant soil uses, highlighting progress in the phase-out of methyl bromide in key pre-plant uses. Michelle Marcotte (Canada) presented the recommendations for quarantine, structures and commodities and provided a sectoral overview of reductions in CUEs in the past 3 years.

In response to questions from Mexico on alternatives and stockpiles, Porter agreed that soil-less culture and grafted plants could be used more extensively, noting their potential will vary by climate and sector. He explained that consideration of whether amounts approved for CUEs were being stockpiled was beyond the mandate of MBTOC.

In response to a query from the EC on progress towards a complete methyl bromide phase-out, Porter explained that alternatives to some remaining uses require long-term studies of their risks, and stressed the need to begin such studies. On structures and commodities, Marcotte noted that resolving the registration of alternatives would go a long way towards achieving complete phase-out. Responding to the US, Porter agreed that some regions present regulatory barriers to using chemical alternatives to methyl bromide, and emphasized that economically-feasible non-chemical alternatives are available.

The Natural Resources Defense Council (NRDC) asked for clarification on the US' use of methyl bromide stockpiles, noting it had information that these stocks were being used for non-critical uses such as golf courses. Porter noted the use of pre-2005 stocks was outside of MBTOC's mandate.

MBTOC's final report will be submitted to MOP-21.

QUARANTINE AND PRE-SHIPMENT APPLICATIONS OF METHYL BROMIDE: On Wednesday, QPS Task Force Co-Chair Maria Pizano (Colombia) introduced the interim report

on QPS applications of methyl bromide, noting that non-Article 5 consumption of methyl bromide for QPS had reduced over the last ten years, but that Article 5 QPS consumption had increased, mainly in the Asian region. Task Force Co-Chair Jonathan Banks (Australia) outlined the uses of methyl bromide classified by some parties, but not others, as QPS. He explained that an analysis of methyl bromide recapture systems was being undertaken, and there are currently at least four commercial suppliers, but that installations remain small-scale. Explaining that identifying alternatives for methyl bromide for QPS purposes was a difficult process, Banks said that quarantine treatments require a high level of effectiveness and that some national regulations favor methyl bromide use.

In the ensuing discussion, delegates discussed: the toxicity of methyl bromide to humans; the need for parties to declare QPS uses and to prepare national strategies to phase out use; methyl bromide being used by exporting countries to meet the demands of importing countries; and the need for enhanced coordination and cooperation with the International Plant Protection Convention (IPPC).

The Task Force's final report will be submitted to MOP-21.

ALTERNATIVES TO HCFCs IN ARTICLE 5 PARTIES WITH SPECIAL CONDITIONS: On Wednesday, parties considered a scoping study on HCFC alternatives in the refrigeration and air-conditioning sectors in high temperature or special situations, such as deep mining. Kuwait noted that there are insufficient alternatives for HCFC-22 in hot climates, and, encouraging the panel to continue its work, proposed returning to the issue at MOP-21.

PROJECTED REGIONAL IMBALANCES IN AVAILABILITY OF HALON-1211, HALON-1301 AND HALON-2402: On Wednesday, Co-Chair Sirois pointed out that TEAP had explained that this refers to disparities between the supply and demand for halons on a regional basis, rather than differences from region to region. He highlighted elements of TEAP's study, including: for halon-1211, recycled halons seem to be available in all regions, but that outside of China meeting future demand may be an issue for some sectors especially the aviation and military sectors; with regard to halon-2402, there are regional problems in some sectors, especially defense and aviation; regarding mitigating imbalances for halon-1211, parties may wish to explore ways of increasing the flow on the international market; and for halon-1301, parties should increase the use of alternatives in order to ensure sufficient supply to meet critical needs.

The US, Australia and the EC urged the aviation sector to expedite action on the use of alternatives. Australia noted that some countries had banned the import and export of used halons, and encouraged those countries to carefully consider the need for such regulations, and amend them if necessary in order to ensure that they can either import used halons for their critical uses or export them for other parties' critical uses. The EC highlighted some measures it had taken to relax restrictions on the movement of halons across its borders to meet continuing critical uses.

Australia, the EC and the US agreed to engage in informal intersessional consultations on the issue.

LABORATORY AND ANALYTICAL-USE

EXEMPTIONS: On Wednesday, Co-Chair Akhtar noted that TEAP had reported that it had no new information on alternatives to the use of methyl bromide for laboratory and analytical uses, and that the report also includes case studies on how CTC restrictions on use for laboratory and analytical purposes have been implemented by several parties.

China said that given the technical difficulties and high cost involved in phasing out some ODS for laboratory and analytical uses, exemptions for Article 5 parties should cover all uses. Australia underscored the need to consider laboratory and analytical uses in developed and developing countries, given the limited understanding of uses in developing countries. The EC informed the group that it was working on a conference room paper (CRP) containing a draft decision on the issue, and this was later circulated to the OEWG.

On Saturday, the EC reported that some Article 5 countries had raised a number of special concerns, and that work on these and other issues would continue intersessionally. Co-Chair Sirois invited parties to submit comments on the CRP, to enable the EC to carry out further work on it and prepare a revised version for consideration by MOP-21.

Final Outcome: OEWG-29 agreed to forward the CRP to MOP-21 on the understanding that work on the matter would continue intersessionally. According to the draft decision on global laboratory use exemption submitted by the EC, MOP-21 would, *inter alia*, decide to:

- extend the applicability of the global laboratory and analytical use exemption to Article 5 countries from 1 January 2010 to 31 December 2010, for all controlled substances except those in Annex B Group III (trichloroethane), Annex C Group I (HCFCs) and Annex E (methyl bromide), and as of 2015 for all ODS;
- encourage all parties to urge their national standards setting organizations to identify and review those standards that mandate the use of ODS in laboratory and analytical procedures with a view to adopting ODS-free products and processes, where possible;
- request TEAP and its CTCOC to provide a list of laboratory and analytical uses of ODS, including those uses where no alternatives exist;
- request the Ozone Secretariat to update the list of laboratory and analytical uses that the parties have agreed should no longer be eligible under the global exemption; and
- request parties to investigate domestically the possibility of replacing ODS in those laboratory and analytical uses listed in the TEAP report and to make this information available.

PROGRESS MADE IN REDUCING EMISSIONS

FROM PROCESS-AGENT USES: On Wednesday, the MLF Secretariat reported on progress made in reducing emissions from controlled substances in process agent uses (UNEP/OzL.Pro.WG.1/29/4) in Article 5 parties up to the end of 2008.

Australia, the US and Canada supported an update of Table A, which lists uses of controlled substances as process agents, with Australia highlighting the need to delete unnecessary or outdated uses. China, supported by Canada, proposed updating the list of process agent uses to include the three new uses discovered by China in 2007. Canada also noted that it had discontinued the

use of ODS for process agents and proposed that countries that have reported a phase-out of ODS use for process agents should not be required to submit annual reports on emissions from these uses.

On Friday, the EC introduced a CRP on the issue, containing a draft decision which would update Table A in accordance with TEAP's recommendations. He noted that in informal consultations parties had favored amending the CRP with the addition of explanatory text.

Final Outcome: OEWG-29 agreed to forward the draft decision to MOP-21 with the understanding that discussions would continue intersessionally. The bracketed draft decision would adopt 44 uses of controlled substances as process agents as a revised Table A for Decision XIX/15 (Replacement of table A and table A *bis* in relevant process agent decisions).

OTHER ISSUES ARISING OUT OF THE TEAP

REPORT: On Wednesday, Co-Chair Sirois discussed TEAP administrative matters and highlighted the proposal for Roberto de Aguiar Peixoto (Brazil) to become Co-Chair of the RTOC. He also announced that Jose Pons Pons (Venezuela) would resign as TEAP Co-Chair at the end of 2010, after 19 years of service.

On Friday, the EU introduced a CRP on sources of CTC emissions and opportunities for reductions, noting it arose from the discrepancy between reports of stockpiled CTC and measurements of emissions, and explained that the EU was continuing informal consultations on the text. He suggested that all elements be kept in brackets so that consultations could continue intersessionally with the aim of resolving the issue at MOP-21. TEAP requested that a provision for a TEAP report on the issue be deferred from 2010 to 2011. Argentina expressed concern about the scope of information to be requested from parties.

Final Outcome: On an understanding that work would continue intersessionally, OEWG-29 agreed to forward the bracketed CRP to MOP-21. The document includes an explanatory note and a draft decision that, *inter alia*: requests parties to provide information on their CTC production, consumption and sources of emissions; and requests TEAP to prepare a report on the issue in conjunction with its 2010 Assessment, taking into consideration information received from parties.

ENVIRONMENTALLY SOUND MANAGEMENT OF ODS BANKS

On Thursday, 16 July, delegates considered a Co-Chairs' report of the Workshop on the environmentally sound management of ODS banks held on Monday, 13 July 2009 (UNEP/OzL.Pro.WG.1/29/5). Workshop Co-Chair Annie Gabriel (Australia) explained that the report summarizes presentations made during the workshop, key points by participants, as well as specific suggestions by TEAP and the Ozone Secretariat. She said discussions focused on: the size of ODS banks; climate benefits of disposing of banks; efforts needed to access and destroy the banks; costs associated with the management and disposal of banks; and the viability and accessibility of options to address banks at the national and international levels.

OEWG Co-Chair Akhtar then invited the Federated States of Micronesia (FSM) to present its proposal submitted jointly with Mauritius to amend the Montreal Protocol to collect and destroy

ODS banks, (UNEP/OzL.Pro.WG.1/29/8). FSM explained that under the proposal, Article 2 parties would be required to recover and destroy a percentage of ODS banks, and exemptions for HFC production and use would be contingent on ODS bank destruction. In relation to Article 5 parties, he said the MLF would establish a global ODS bank recovery and destruction programme, and secure additional financing from institutions such as the GEF and the UNFCCC. He stressed that the key issue is how to destroy ODS banks, noting general agreement among parties that the destruction is technically feasible and was required.

In the ensuing discussion, many countries commended the workshop and thanked Mauritius and FSM for submitting the proposed amendment. The EC highlighted the importance of data on the distribution and management of banks and suggested that the final TEAP report on the issue include: information about subregional specificities; timelines for bank availability; and the costs and benefits of destroying ODS banks. The US, Canada, Switzerland, Japan, Mexico, Australia and Brazil underscored the need for additional information. Canada called for clearly defining the scope of ODS to be destroyed. Canada, the US and Switzerland emphasized the importance of identifying incentives for destruction, with Switzerland and Brazil underscoring the need to understand the best means of avoiding perverse incentives tied to the destruction of ODS banks. Sweden, on behalf of the EU, said TEAP should seek more information on the use of carbon markets, including means of avoiding perverse incentives. The Philippines underscored the need to evaluate destruction facilities, including their energy consumption and environmental credentials.

The US noted that demonstration projects being developed under the MLF, as well as national programmes and voluntary and compliance carbon markets, would provide real and essential data regarding the destruction of ODS banks. Several countries commended the pilot projects under the MLF, highlighting that this was “learning by doing.” India stressed the need for further demonstration projects in Article 5 countries and said the MLF Executive Committee (ExCom) may be called upon to provide adequate financing.

The EU, Switzerland, New Zealand and Liberia supported exploring collaborations and co-funding opportunities with other institutions. China noted the important role of the MLF in financing destruction activities, and also highlighted the need to seek other sources of funding in order to expand the scope of ODS destruction activities. Noting that the TEAP report prepared for the workshop estimated the cost of recovering and destroying ODS banks in developing countries at between US\$70 billion and US\$93 billion, Japan underscored that the MLF cannot cover these costs alone. Colombia and Cuba stressed that the MLF should play the major role in funding activities related to ODS bank destruction. Indonesia, Egypt, Kyrgyzstan and Senegal called for financial and technical assistance to manage ODS banks.

On the amendment proposal, Samoa, Liberia, Somalia, Kiribati and the Cook Islands, on behalf of the Pacific Island Network, expressed support. St. Lucia expressed general support for the proposal, but stressed that any decision must consider the high costs of ODS transport in the Caribbean region.

Canada called for further discussions on the modalities of the proposal, in particular regarding baselines and reduction targets, and expressed concern with a proposal that the MLF support destruction without a legal obligation for destruction under the Protocol. Switzerland noted an amendment may not be required to take the necessary actions on ODS bank destruction. Venezuela stressed the need to work within the context of the Montreal Protocol. Mexico called for closer consideration of the proposal’s impact on essential and critical uses. Regarding whether to list halons as one of the ODS to be destroyed, China said it was too early to decide and proposed implementing pilot projects to explore the issue.

The Environmental Investigation Agency (EIA) stressed the proposal represented a time-limited opportunity to prevent the release of powerful greenhouse gases (GHGs) into the atmosphere, and urged parties to use the Montreal Protocol structure to its maximum benefit by taking immediate action.

Commenting on the discussions, FSM said the cost of destruction should not be viewed as sunk costs, but as investments.

Delegates agreed to establish a contact group on the issue, co-chaired by Annie Gabriel (Australia) and Mikheil Tushishvili (Georgia). The contact group met on Thursday, Friday and Saturday. Delegates focused on two streams of work: providing further guidance to TEAP and the Secretariat on work to be completed prior to MOP-21; and possible decisions and actions that parties may want to consider, including the FSM and Mauritius amendment proposal.

On a collated summary of suggestions made by parties on guidance to TEAP for further information on ODS destruction, Colombia suggested the need to include an assessment of information on the geographical distribution of destruction facilities, with a view to defining regional and subregional strategies. Australia requested that TEAP clearly outline the assumptions included in the study. Canada highlighted the need for TEAP to consider both the relative cost and environmental benefits of destroying ODS banks. The EU said TEAP should also include socioeconomic benefits.

On guidance to the Secretariat, participants focused on the Secretariat’s report on funding options (UNEP/OzL.Pro/Workshop.3/2, 2/Add.1 and 2/Add.1/Corr.1) and discussed whether to mandate the Secretariat to conduct further work on the issue for consideration at MOP-21. The US supported asking the Secretariat to organize the funding modalities into four categories: those within the Montreal Protocol; those within the Montreal Protocol in conjunction with others; those that can be self-financed by parties; and those to be undertaken outside of the Montreal Protocol. Japan called for information on how to operationalize the use of other funding sources and sought clarification on how using the MLF to fund destruction would aid compliance under Montreal Protocol obligations. FSM called on parties to initiate projects funded in other ways so that their experiences could be shared at MOP-21. Participants agreed to encourage the Secretariat to continue its dialogue with other organizations as time and resources permit, and as permitted by the governing bodies of each institution, and to ask it to report to MOP-21 on any new information that would be useful to

deliberations. They also agreed to ask the Secretariat to prepare a compilation on previous discussions on the legal interpretation of destruction in relation to Article 10 (Financial Mechanism).

On potential activities to be undertaken by the Montreal Protocol, Co-Chair Tushishvili noted that the 58th ExCom had approved interim guidelines on the funding of further pilot projects. The EC and Japan cited Decision XX/7 and parties' agreement to take a step-wise approach in dealing with banks, including the requirement of parties to elaborate strategies and national plans. The US agreed, and said the primary task of the Montreal Protocol was to keep the ball rolling, so that parties could learn by doing. He also said some parties have ongoing collection programmes for ODS and encouraged parties to learn from one another's experiences. Noting the need for more information from Article 5 countries on what levels of ODS would be available for destruction, Canada highlighted that most Article 5 countries have funds left for CFC phase-out, and that recovery strategies could be developed with this funding. China said that responsibility for dealing with banks lies with the Montreal Protocol, highlighted the efficiency of the MLF and favored increasing the number of demonstration projects.

Regarding the FSM and Mauritius proposed amendment, the EC stressed that any mandatory destruction of ODS would not sufficiently take into account the step-by-step approach agreed by parties. He elaborated that the foreseen offset potential of destruction in the proposal would allow destruction of HFCs, and that this is closely linked to the issue of HFC phase-down, which the EC was reluctant to discuss. Supporting the EC, Brazil expressed concern over the perverse incentives potentially created by carbon off-sets generated through HFC destruction. Co-Chair Tushishvili summarized that consideration of the proposal was premature and that it would be further discussed at MOP-21.

In the discussion on cooperation with other institutions for facilitation of ODS destruction, the US suggested there may be an opportunity for the MOP to provide direction to the GEF, or for parties to pursue GEF funding directly. Canada noted that although the GEF has not traditionally assisted Article 5 parties on ozone, there are opportunities for support because of the climate change and chemicals linkages. The Secretariat elaborated that information is exchanged between the Ozone and GEF Secretariats. He also highlighted that the GEF Secretariat proposed to reallocate US\$15 million from the ozone focal area to another focal area, and that the Secretariat was not consulted. He further explained that even if the Secretariat was consulted, it could not provide an opinion because it had no direction from parties. The Secretariat suggested that it could be granted an institutional prerogative by parties, as is the case with the Secretariat to the Stockholm Convention on Persistent Organic Pollutants. China said parties needed to avoid giving the signal that the Protocol was not equipped to deal with banks. Co-Chair Tushishvili suggested exploring implementation synergies with the Stockholm Convention, as many POPs projects will involve destruction.

The contact group concluded its work and agreed to reflect the discussion in the report of the meeting.

Final Outcome: The work of the ODS contact group is annexed to the meeting report.

On the summary of suggested work for TEAP to cover in the finalization of its report, delegates requested TEAP to complete the second phase of the reporting process requested by Decision XX/7 in time for MOP-21 and to take into account the following guidance to the extent possible:

- pay close attention to the guidance provided by Decision XX/7, in particular the paragraph 7 chapeau that, *inter alia*, calls for the relative costs and environmental benefits to the ozone layer and the climate, of destruction versus recycling, reclaiming and reusing such substances. TEAP is also asked to consider ozone and climate benefits, and any other follow-on economic, social and environmental benefits that might accrue such as benefits to waste management streams and to management of environmental harmful substances;
- the need for a detailed breakdown of costs associated with the destruction of ODS banks, including by category of process (such as collection, transportation, storage and destruction), as well as the relative costs and environmental benefits of destroying ODS banks by some subregions and by time period (taking into account when ODS banks can be best addressed);
- the practicalities related to separation of various ODS, especially those for which production and consumption have already been phased out, and provide more detail on the benefits and negative impacts of dealing with a mix of substances and sectors based on their availability and on other possible perverse consequences resulting from destruction, such as early retirement of equipment;
- further information on the possible effect of the generation of carbon credits from ODS destruction on the existing voluntary carbon market, including the timing of such credits being generated, the importance of credibility of such credits and how to enhance their credibility as well as how to ensure that perverse outcomes do not arise (such as in relation to the compliance market) with input from the World Bank study being undertaken through the MLF;
- information that might be taken into account from the approval of interim disposal guidelines by the ExCom at its 58th meeting; and
- inclusion of information from TEAP on the geographical location of potential destruction centers with a view toward possibly defining or establishing regional or subregional strategies.

On the summary of suggested further work for the Ozone Secretariat, delegates requested the Secretariat, *inter alia*: to categorize the funding opportunities included in its report; continue its consultations with the GEF, and the various multilateral environmental agreement Secretariats and to report on any further relevant progress; provide further information on producer or manufacturer responsibility/take back programmes; and compile information related to past discussions that have taken place on legal issues associated with the MLF financing destruction of ODS.

On the elements that parties might wish to consider in developing a decision on further actions that might be taken on environmentally sound management of ODS banks, delegates agreed on the following:

- continuing with the step-by-step approach agreed in decision XX/7, and as matter of urgency, finalizing and/or submitting

strategies and national plans for Article 5 parties, and possibly utilizing remaining funds from CFC phase-out plans to identify quantities of ODS they feel is surplus;

- continuing to develop practical information on destruction through pilot projects, projects that include co-funding, information dissemination on ongoing programmes, and further destruction project proposals;
- continuing to try to clarify the scope of desired recovery and destruction efforts through national efforts to identify the quantity of ODS that is ready for destruction;
- using the MLF to identify priority areas and fund destruction demonstration and other projects that are cost effective and that will deliver significant reductions;
- developing more information on how countries with disposal programmes have taken account of long term servicing needs;
- requesting reports from the MLF on work being done on destruction pursuant to decision XX/7, including reports on status and success of pilot projects, obstacles encountered, studies undertaken, and related experience with co-funding;

On the possibility and potential of modalities for enabling information sharing with the GEF, parties noted that this goal could possibly be accomplished through a collective decision/guidance from Montreal Protocol parties directed to the GEF, or through individual parties/GEF participants themselves considering pursuing related issues with the GEF.

Some thought that it would be valuable for the Ozone Secretariat to engage in the GEF replenishment process and in post-replenishment GEF deliberations. Parties also noted the value of institutionalized dialogue between the GEF and the Montreal Protocol, not only at the secretariat level, but also at the party level.

REPORT OF THE DIALOGUE ON HIGH-GWP ODS ALTERNATIVES

On Thursday, delegates considered the summary report of the discussions that took place at the dialogue on high-GWP ODS alternatives, held on Tuesday, 14 July 2009 (UNEP/OZL.PRO.WG.1/29/6). Workshop Co-Chair Laura Berón (Argentina) said that participants agreed that the Montreal Protocol should continue to consider contributing to climate change mitigation, and favored keeping open the options for phasing down HFCs. Berón highlighted that strategies under the Montreal Protocol must be compatible with the climate regime and the outcome of the Conference of the Parties to the UNFCCC, to be held in Copenhagen in December 2009.

Mauritius then introduced its proposal, submitted jointly with FSM, to amend the Protocol to phase down HFCs (UNEP/OzL.Pro.WG.1/29/8). He said the TEAP report highlighted the importance of altering the “business-as-usual” trajectory of HFC consumption. Stressing the climate benefits of the proposal, Mauritius highlighted the track record of the Protocol in using control measures to catalyze innovative measures and alternatives.

Uruguay said the issue of high-GWP alternatives should be dealt with by enhancing cooperation with the UNFCCC and Kyoto Protocol. Japan suggested further exploration of the options for amending the Montreal Protocol to address HFCs, and St. Lucia stated more time was necessary to make an informed decision on such action.

The EC stated it would be premature to discuss legal issues until sufficient information regarding options becomes available, and said it could not, at present, engage in formal negotiations on the Protocol amendment proposal. The EU expressed preference for an international arrangement under the UNFCCC, under which HFCs would remain in the basket of gases addressed by the UNFCCC, and which would enable agreement to reduce HFC emissions developed in cooperation with the Montreal Protocol. Malaysia and Kuwait said it was too early to discuss control measures for HFCs in the absence of sufficient information about alternatives and their cost-effectiveness.

Venezuela opposed the transfer of the issue of HFCs to the Montreal Protocol and urged delegates to focus on existing legal instruments. India stressed that HFCs are not ODS and are therefore outside the ambit of the Montreal Protocol. He said HFCs are being addressed under the Kyoto Protocol, and underscored that transferring HFC control to the Montreal Protocol would alter the scope and objective of the Montreal Protocol, and also undermine the UNFCCC and Kyoto Protocol. The Gambia said amending the Montreal Protocol would be insufficient to deal with the problem of HFCs and urged an integrated approach involving the various conventions and protocols.

Colombia underscored the need to focus on ODS, and said the Montreal Protocol should direct its energy and funds to addressing urgent problems such as the phase-out of HCFCs. Argentina opposed taking on new obligations in light of the major challenges currently facing Article 5 parties, including HCFC phase-out. China suggested the Montreal Protocol focus on locating climate-friendly alternative technologies and strengthen support to Article 5 parties, but said HFCs should be considered along with other GHGs under the Kyoto Protocol. Tunisia cautioned against increasing the load of the Montreal Protocol and preferred considering HFCs under the climate regime.

Senegal, Turkey and Trinidad and Tobago expressed general support for the proposal, with Trinidad and Tobago cautioning support from industry would be crucial. Switzerland stressed the need to act rapidly on HFCs, said it had no defined position, and suggested the UNFCCC may provide a mandate to formalize discussions on HFCs under the Montreal Protocol. Stressing it had not taken a position on the proposal, the US highlighted that there was no need to wait for the UNFCCC to act before engaging in discussion and consideration of the proposal. He noted the phase-down of HFCs was consistent with Article 2.2(b) of the Vienna Convention (General Obligations: appropriate legislative or administrative measures...to control, limit, reduce, or prevent human activities under their jurisdiction on control should it be found that these activities have or are likely to have adverse effects resulting from modification or likely modification of the ozone layer) and said it would be possible to develop cooperative arrangements between the Protocol and the UNFCCC to manage HFCs this year.

Brazil said funding could be obtained under the Montreal Protocol to finance the extra cost of more environmentally-friendly alternatives. She called for more information

including on cost, climate and ozone impacts, and efficiency of alternatives, and supported seeking alternatives after completion of the HCFC phase-out.

Pakistan acknowledged the need to phase out HFCs at some point in the future due to their high GWP, and underlined the need for a detailed cost assessment of such a phase-out. Canada supported consideration of whether, and how, HFCs could be phased down under the Montreal Protocol, but highlighted the need for more work on enhancing understanding of the issue. Australia said the following needed to be addressed: the impact on the Kyoto Protocol basket approach of a phase-down of HFCs; the feasibility of mitigating HFC emissions; and the need to ensure the environmental effectiveness of HFC mitigation actions. Jamaica expressed tentative support for a phase-down and not a phase-out of HFCs, stressing the need for time to consult internally with affected industries and other relevant stakeholders. Bahrain and Cameroon supported the proposed amendment, with Bahrain urging HFC users to consider and use alternatives, such as HFC-134a. South Africa, for the African Group, highlighted the need for more discussions in order to address the various concerns raised by parties.

FSM said each regime should address the issues within its capability and experience, such as the UNFCCC addressing emissions and the Montreal Protocol addressing production and consumption. Mauritius stressed that the concerns raised over the proposal were not insurmountable, and said that obligations under the Vienna Convention allow, and may in fact compel, action to control HFCs under the Montreal Protocol.

The International Institute of Refrigeration highlighted the need for diversified finance streams and said the refrigeration industry was committed to providing assistance. Greenpeace called for the elimination of HFCs, encouraged parties to begin limiting the use of HFCs immediately where alternatives were available, and stressed that the MLF should facilitate this. The EIA said the Protocol's best work should be in its future, and not in its past. She highlighted the Protocol's essential role of regulating the production and consumption of HFCs and the UNFCCC's role in regulating emissions.

Delegates established a contact group on the issue, co-chaired by Laura Berón and Mikkel Sorensen (Denmark). The contact group met Thursday, Friday and Saturday.

During the first meeting of the contact group on Thursday evening, the contact group Co-Chairs proposed, and parties agreed, to organize the work of the group into three stages. The first was the identification of necessary concepts and elements for addressing the issue of high-GWP alternatives to ODS such as HFCs, including discussion of the elements contained in the proposed amendments. The second was the discussion of: a CRP on high-GWP ODS alternatives submitted by the EC and the EU; and of two CRPs submitted by Switzerland, the first on funding requests for projects taking appropriate account of climate change impacts of ODS alternatives, and the other on TEAP's mandate. The third stage involved the identification of next steps going forward to MOP-21, including information gaps.

On Friday morning, Co-Chair Sorensen invited the group to take up the first issue and identify the elements that would need to be addressed under possible HFC control measures. Eight elements were identified by the Co-Chairs and proposed by

some parties: substances to be covered; baselines; phase-down steps for Article 5 and non-Article 5 parties; relationship with the UNFCCC; financial issues; by-product emissions; units of accounting; and the importance of import and export licensing systems for HFCs. The US, Switzerland, Mexico, Mauritius, the EC and others supported discussing these elements, while India, Malaysia and others opposed discussion of the elements and of the amendment proposal by Mauritius and FSM, with India stressing that the issue of HFCs is being dealt with under the Kyoto Protocol, and Malaysia adding that they were not necessarily rejecting the proposal. Brazil said the mandate of the contact group was contained in decision XIX/6 (Adjustments to the Montreal Protocol with regard to HCFCs) and suggested the group focus on discussing ways of avoiding the replacement of HCFCs with HFCs, in order to ensure HCFC substitutes are climate-friendly.

Responding to the Co-Chairs' proposal to proceed to discussion of the CRPs, Norway and the US noted that the proposed amendments are formal proposals, which the OEWG is required within its mandate to discuss. Colombia, Argentina and Malaysia supported proceeding to discussion of the CRPs. The US, supported by the EC and Canada, expressed willingness to start discussing the CRPs, but stressed the need to return to discussion of the amendment proposals and the elements outlined. The Co-Chairs underlined that many of the elements contained in the proposals were also contained in some of the CRPs, and said the Group would return to discussion of any element not taken up under discussion of the CRPs.

The Co-Chairs proposed, and parties agreed, to merge the three CRPs into two, one on HFCs, and the other on HCFCs. The two texts contain draft decisions. The contact group then began a paragraph-by-paragraph consideration of the draft decision on HFCs.

HFCs: On the preamble, Brazil proposed language recognizing the common but differentiated responsibilities of parties to prevent the potential growth of HFC emissions and mitigate the global warming of the atmosphere. South Africa expressed concern with the reference to mitigating global warming, highlighting that for developing countries, mitigation is only one of several important issues. Australia highlighted the need to acknowledge ongoing efforts under the UNFCCC to reduce HFC emissions. Brazil, Argentina and the Dominican Republic, opposed by the US, proposed deletion of the reference to the Montreal Protocol's expertise in controlling HFCs, underscoring that the Protocol had no such experience or expertise.

In the operative paragraphs, regarding encouraging parties to forward data on their current and historic HFC production and consumption, Brazil, Argentina, Venezuela and others stressed that this information was not available in many Article 5 countries. India highlighted that HFCs are not controlled substances under the Montreal Protocol, and that many countries have no regulations in place to collect information about them. Mexico, the US and the EC highlighted the importance of such information. Samoa suggested the development of a standardized format for reporting. Parties proposed language, *inter alia*, encouraging parties "in a position to do so" to submit the data "if possible." China said she did not have the authorization to

make any decisions, but expressed willingness, in the spirit of active participation, to discuss the CRP. She requested that all the paragraphs be put in square brackets.

On requesting the Ozone Secretariat to collaborate with the UNFCCC Secretariat to make HFC inventory data available to TEAP, Canada noted that HFC data is publicly available on the UNFCCC website, and Brazil questioned the need for carrying out an inventory considering the UNFCCC Secretariat has the information. The EU stated that only emissions data, and not production and consumption data, is publicly available.

Regarding the information requests to TEAP, China underlined the importance of HCFC information rather than HFC information, considering the impending HCFC phase-out. Regarding the request to TEAP to list all refrigeration and air conditioning sub-sectors where low-GWP refrigerants are used, Japan, supported by the US and the EC, proposed expanding this request to all sub-sectors where low GWP alternatives are used. Argentina suggested also requesting TEAP to provide information about the costs and market shares of these substances, and Australia proposed requesting information about their energy efficiency. China also proposed requesting information about the market barriers to the phase-in of low GWP alternatives.

On the request to the Ozone Secretariat to communicate to the UNFCCC Secretariat outcomes of the workshop on high GWP ODS alternatives, "which may contribute to a global solution on HFC emissions," China opposed this reference, cautioning against prejudging the outcome of the discussions.

With regard to cooperation between the Montreal Protocol parties and the UNFCCC, China opposed this and stated that parties had not made any decision regarding cooperation with the UNFCCC Secretariat to reduce HFC emissions. Argentina supported China's concern, and proposed language similar to language in decision XIX/6, that would reflect the parties' desire to select ODS alternatives with low environmental and climate impacts. Bolivia, supported by Colombia, highlighted the need to cooperate with the UNFCCC Secretariat to address the issue.

HCFCs: Commenting on the preamble, the EC proposed reference to the need to safeguard the climate change benefits associated with the phase-out of HCFCs, and South Africa, Brazil and the US supported this.

Regarding encouraging parties to avoid the selection of high-GWP alternatives to HCFCs and other ODS, Brazil pointed out that some of the alternatives are costly, noted that the language was taken from decision XIX/6, and highlighted the need to achieve balance, particularly regarding requesting the ExCom and the MLF to finance conversion to these alternatives. The US suggested including reference to health, safety and other considerations. China proposed requesting TEAP to conduct a comprehensive assessment of the impacts on the environment of HCFC alternatives, in order to establish a comprehensive methodology for the assessment of impacts and to submit a report to the parties.

On encouraging parties to promote the further development of low-GWP alternatives to HCFC, delegates disagreed on whether to encourage non-Article 5 parties "in particular."

Delegates disagreed on whether parties could call on the ExCom to expedite finalization of its guidelines for the HCFC phase-out. Many countries underscored the urgency of adopting these guidelines, with Brazil asking the ExCom to take account of Article 5 parties' special needs. Canada noted the ExCom had equal representation from Article 5 parties and underscored the guidelines addressed many complex issues.

Parties commented on the direction to be given to the ExCom on the development and application of funding criteria for projects and programmes, especially for the HCFC phase-out. Brazil objected to reference to climate change mitigation, preferring language calling for consideration of climate benefits.

Concepts and elements for addressing high-GWP alternatives to ODS: Parties first took up the substances to be covered by control measures. The EC highlighted the need to identify the scope, list and categorization of substances. The US proposed inclusion of hydrofluoroolefins (HFOs), and Switzerland suggested including hydrofluoroethers (HFEs) and perfluorinated chemicals (PFCs). Mexico said the substance in Group II of the Mauritius and FSM proposal (HFC-23) relates only to emissions, and should not be included. She supported inclusion of the substances in Group I, which she said relate to technology transfer.

Discussing the baseline to be used, the US said the baseline should account for both HCFC and HFC consumption and production if it is to be on an historical basis. The EC highlighted the need to prevent inflation of baselines, considering that HFC production and consumption rates by parties are not currently known. Canada suggested considering the need for a grace period. China, underscoring that the conceptual discussion is only an exchange of information and does not amount to negotiating the proposed amendment by Mauritius and FSM, suggested using the Kyoto Protocol baseline. India said the entire discussion amounts to a deviation from the mandate of the Montreal Protocol.

Regarding the phase-down steps, the US underscored the goal should be a phase-down and not a phase-out, highlighting that alternatives are not available for all uses. He said the phase-down rate contained in the proposal by Mauritius and FSM was too "aggressive" and noted the need for consideration of a rate and plateau.

Regarding environmental benefits, the US said these should be considered at a global level, including in Article 5 countries. Switzerland proposed an assessment of which phase-down steps under a Montreal Protocol HFC amendment would provide additional environmental benefits in addition to existing or impending national HFC regulations and limitation of HFC phase-in through the MLF process. Australia highlighted consideration of links to the HCFC phase-out. Canada said there should be an assessment of the level required for transiting from HCFCs to HFCs, taking account of the availability of alternatives and the future of those alternatives. China proposed assessing the contribution of the phase-down to the Kyoto Protocol, and said the phase down should only apply to Article 2 countries.

On linking the work of the Montreal Protocol with the UNFCCC, the EC asked to assess the contributions of an HFC phase-down to the Kyoto Protocol, and the US underscored that action on HFCs should involve actions by both the UNFCCC

and the Montreal Protocol. Switzerland called for addressing collaboration on scientific and technical assessments and reporting, and Norway highlighted the potential role of the IPCC. Australia stressed the need to ensure environmental effectiveness. China said it would be more appropriate to deal with HFCs in the context of the UNFCCC, noting, *inter alia*, that the Kyoto Protocol's second round of obligations may be complete before China might be in a position to ratify a new amendment. Japan emphasized the potential for collaboration between the two forums in providing assistance to developing countries.

On financing, the EU highlighted the potential role of the MLF, the GEF and other financial institutions, and stressed the need to ensure collaboration and interlinkages among them. He questioned how to ensure technology transfer. Japan underscored the need to understand the legal basis for using MLF resources for HFCs, and Canada queried what kind of funding model would be most appropriate for reducing HFCs.

On by-product emissions, the US underscored that the primary issue in this context is that of HFC-23 by-product emissions and the linkage to HCFC-22 production, and that its environmental consequences are significant.

On the units of accounting, Switzerland and the EC favored using GWP, and the EC asked how other options for accounting units might be implemented in a practical way.

On the importance of import and export licensing systems for HFCs, Brazil highlighted the need for support in establishing licensing systems, and Kuwait emphasized the need for support in data collection for HFC inventories. China stressed the need to communicate with other organizations, such as the World Trade Organization (WTO).

On Saturday, Co-Chair Berón reported the contact group had produced three documents, the draft decisions on HFCs and HCFCs and the concept list, and these would be included in an annex to the OEWG report. FSM announced that the following eight countries had agreed to co-sponsor the Mauritius and FSM proposal: Palau, Seychelles, Samoa, the Cook Islands, Kiribati, Papua New Guinea, Madagascar and Comoros. He requested these countries be recorded as co-proponents of the proposal. India, repeating their objections to the proposal, requested that this be reflected in the report of the OEWG.

Final Outcome: Parties agreed to annex a contact group Co-Chairs' report to the report of OEWG-29 for consideration at MOP-21, including, in an annex, the bracketed draft decisions on HFCs and HCFCs and the elements of the conceptual discussion.

TREATMENT OF STOCKPILED ODS RELATIVE TO COMPLIANCE

On Thursday, Co-Chair Akhtar introduced discussion on the treatment of stockpiled ODS relative to compliance. The Secretariat presented a record of cases in which parties had excess production: stockpiled for destruction in a future year; for use as feedstock in a future year; and for export for basic domestic needs in a future year.

In the ensuing discussion, the EU introduced its CRP containing a draft decision on the treatment of stockpiled ozone-depleting substances relative to compliance. Australia, Canada, the US and China requested time to consider the proposal, and delegates agreed to return to discussion on the matter later in the meeting.

On Friday, the EU explained it had been unable to engage in informal consultations on the issue, and delegates agreed to move the CRP forward with the understanding that discussions would resume at MOP-21.

Final Outcome: OEWG-29 agreed to forward the CRP to MOP-21 for further consideration. The CRP provides information on scenarios under which parties stockpile ODS and contains elements of a draft decision on the issue which would, *inter alia*, require parties to report excess production and request the Secretariat to develop criteria to assess whether earmarked productions are put to their intended use.

OTHER MATTERS

MLF EVALUATION: On Wednesday, Co-Chair Akhtar invited Canada to introduce its proposal to evaluate the performance of the MLF. In introducing its CRP on the issue, Canada noted the achievements of the MLF are many, and that in light of the upcoming challenge of HCFC phase-out, it was a good time to evaluate the success of the mechanism. He said the intention was to focus on the impacts and results of the Fund, and less on the management and processes, which was the focus of previous evaluations.

In an initial exchange of views on the issue, South Africa and Cuba noted the need to consult with regional groups, and with Argentina and Colombia, expressed concern about the timing of the proposed review. Mauritius and Australia expressed support for the proposal, explaining the review had the potential to improve the effectiveness of the Fund and to inform future work on HCFCs.

On Friday, Canada explained it had engaged in informal discussions with delegates on the issue, and proposed establishing a contact group to discuss its rationale, possible content and timing for the possible evaluation of the MLF. The EU expressed concern about the timing of the discussion, and favored discussing the proposal at a later date. The Dominican Republic noted the potential costs of such a review, and with Brazil, favored postponing the proposal until 2016. Delegates established a contact group, co-chaired by Gudi Alkemade (the Netherlands) and David Omotosho (Nigeria), which met Friday evening to discuss the issue.

On Saturday, contact group Co-Chair Alkemade reported to plenary, explaining that the group had focused on the timing of the evaluation and of establishing terms of reference for such an evaluation.

She introduced a draft decision arising from the contact group, and noted the contact group had considered 2012, 2013 and 2016 as evaluation dates but had been unable to reach agreement. She explained participants had also disagreed as to whether terms of reference for the evaluation had to be developed one or two years prior to its completion.

In the ensuing discussion, South Africa favored completing the evaluation by 2015, and the Dominican Republic, Bolivia and Argentina preferred carrying out the evaluation in 2016.

Final Outcome: OEWG-29 agreed to forward the bracketed draft decision to MOP-21. The draft decision would provide for the evaluation to be completed in time for presentation to the MOP held in 2012, 2013 or 2016, and would call for the terms of reference for the evaluation to be agreed by parties one or two years before the evaluation is due.

INSTITUTIONAL STRENGTHENING: On Thursday, Brazil, on behalf of the Latin America and Caribbean Group (GRULAC), introduced its proposal on institutional strengthening of national ozone units (NOUs), noting strong institutions are crucial for the success of the Protocol, and for preventing non-compliance. GRULAC underscored the increased workload of NOUs as parties phase out HCFCs, and explained the proposal to request the ExCom extend and increase levels of financial support.

Sierra Leone, on behalf of the African Group, with Malaysia, India, Bangladesh, Turkey and many others supported GRULAC's proposal. Georgia reminded parties of the challenges countries with economies in transition had faced when they no longer received support for NOUs.

Australia, the EU, the US, Norway and others underscored that the ExCom had not finished considering the issue of institutional strengthening and cautioned against the precedent that would be set by parties preempting ExCom's decision. Japan noted the ExCom had reached agreement to fund institutional strengthening until the end of 2010. Mauritius argued parties can give guidance to the ExCom, and Uruguay underscored this was a political issue that should be dealt with by the MOP.

Noting the divergent views among parties, Co-Chair Akhtar suggested the proposal be bracketed and forwarded to MOP-21 and encouraged parties to continue to discuss the issue informally.

Final Outcome: OEWG-29 agreed to forward the bracketed draft decision to MOP-21 for further consideration. The draft decision requests the ExCom, as a matter of urgency, to extend and increase the levels of financial support for institutional strengthening requirements of Article 5 parties.

PLANS FOR MOP-21: On Saturday, Egypt made a presentation on the facilities and infrastructure in place at Port Ghalib, a resort south of Sharm El Sheikh, and venue for MOP-21 in November 2009.

CFC-FREE MDI AWARENESS PACKAGE: On Saturday, Rajendra Shende, UNEP OzonAction, with Australia and Pakistan introduced the launch of the "Transition to CFC-free inhalers Awareness Package for National Ozone Units (NOUs) in developing countries" developed jointly by the UNEP Compliance Assistance Programme and the Australian Government, with the support of the National Asthma Council of Australia.

CLOSURE OF THE MEETING

On Saturday afternoon, Co-Chair Sirois led delegates through the report of the meeting (UNEP/OzL.Pro.WG.1/29/L.1, Add.1 and Add.2), which was adopted with minor amendments.

Noting that delegates had developed a better understanding of the issues and the interlinkages between climate and ozone protection, he gavelled the meeting to a close at 5:22pm.

A BRIEF ANALYSIS OF OEWG-29

Enjoying near-universal ratification, the Montreal Protocol has, over its 21-year life span, succeeded in phasing out 97% of ozone depleting substances (ODS). Regularly cited as the

most successful environmental treaty, the Protocol addresses production and consumption of ODS and includes phase-out targets for both developed and developing countries.

As the Protocol achieved its original aims, parties capitalized on its success by accelerating commitments, and in 2007 agreed on an accelerated phase-out of hydrochlorofluorocarbons (HCFCs). In the same year, analysts noted that, even assuming perfect implementation of the Kyoto Protocol, the Montreal Protocol has been more than four times more effective at reducing greenhouse gases since many ODS also exhibit a high global warming potential (GWP). These developments raised some technically inclined eyebrows, as the most common alternatives to HCFCs are hydrofluorocarbons (HFCs), which are powerful greenhouse gases (GHGs). Many warned that the climate mitigation benefits of the HCFC phase-out under the Montreal Protocol would be sacrificed if high-GWP HFCs replace HCFCs.

HFCs and the destruction of ODS banks were brought to the OEWG in the form of an amendment submitted by the Federated States of Micronesia (FSM) and Mauritius. The two issues dominated substantive discussion at OEWG-29 and were also addressed during two one-day workshops preceding the OEWG. This analysis discusses the amendment proposal, examines the diverse range of party positions, and looks ahead to the 21st Meeting of the Parties to the Montreal Protocol (MOP-21) and the 15th Conference of the Parties to the UNFCCC (COP-15) in Copenhagen.

SMALL ISLANDS WITH BIG IDEAS

A two-pronged proposal to amend the Montreal Protocol dominated much of the discussions at OEWG-29. FSM and Mauritius tabled the proposal, explaining that the threat posed by near-term, abrupt climate change, threatens their very existence. By making the proposal, these countries explained they were hoping for fast action on HFCs, in order to avoid the climate change tipping points some scientists warn are only years away.

On HFCs, FSM and Mauritius proposed: establishing a production and consumption phase-down schedule for high-GWP HFCs; calculating control levels based on GWP lifecycle climate performance; establishing control measures for developing countries (Article 5 parties); establishing a new Annex F listing the HFCs to be regulated; and requiring that for financing provided to developing countries to phase out HCFCs, preference be given to climate-friendly alternatives. The proposal also states that special provisions should be made for HFC-23, which is not a product like other HFCs, but a by-product of HCFC-22 production and a GHG about 12,000 times more powerful than carbon dioxide (CO₂).

On ODS destruction, FSM and Mauritius proposed: authorizing the MLF to finance a global scale ODS bank recovery and destruction programme in Article 5 parties utilizing financing as may be available from other international institutions, including carbon financing generated through the Clean Development Mechanism (CDM) of the Kyoto Protocol and future carbon markets established under the post-2012 climate regime; supplemental replenishment to the MLF to immediately fund ODS bank destruction projects; and that

Article 2 parties be required to destroy a certain amount of ODS banks proportionate to their essential and critical use exemption requests in order to receive approval for such requests.

HFC PHASE-DOWN: WHOSE RESPONSIBILITY?

While HFCs do not deplete the stratospheric ozone layer, they have high-GWP and therefore pose a significant threat to the climate system. However, in limiting ODS, particularly HCFCs, the Montreal Protocol, through finance provided by the Multilateral Fund, is predicted to cause a dramatic increase in the use of HFCs, a common HCFC alternative. Many believe it is the responsibility of the Montreal Protocol to prevent the further commercialization and prolific use of HFCs, or at least to contribute significantly to preventing the spread of their adoption. Proponents also point to the successful history of the Montreal Protocol in phasing out consumption and production of ODS, and consequently GHGs, and in regulating the very industries that manufacture HFCs, and cite the benefits of universal ratification, efficient financing, and a sectoral, as opposed to an economy-wide, approach to targets.

As delegates took up the proposed amendment, disagreement remained as to whether the Montreal Protocol was the proper forum for tackling substances, which, after all, are not harmful to the ozone layer. As HFCs are currently included in the basket of GHGs being addressed by the climate regime, they are, according to India, China and the EC, the responsibility of the UNFCCC and the Kyoto Protocol. India and China are currently reaping the benefits of HFCs being under the exclusive purview of the Kyoto Protocol, with many are quick to point out that they enjoy the perverse incentive provided by obtaining carbon credits under the CDM for the destruction of HFC-23 (a by-product of HCFC production). Such credits are not insignificant and the income from the sales of these credits far outweighs the profit involved in the production of HCFCs. Projects that destroy HFC-23 currently account for approximately 1% of CDM projects, yet these few projects generate 25% of all CDM carbon credits. Meanwhile, the EC is deeply wedded to forging success in the climate process and some suggest the EC is all too aware that removing HFCs from the climate debate at this late stage in the game could jeopardize the chances of reaching agreement for major developing countries to take on emissions targets. Extracting HFCs from the GHG basket would not only reduce options for emissions reductions for two of the most vocal developing countries, but also for developed countries.

Japan and the US were eager to explore the possibility of an HFC phase-down. The US approached the issue of HFCs from the standpoint of efficiency, and, although it is yet to take an official position, enthusiastically engaged in discussions on possible actions, and highlighted the potential for tackling the problem of HFCs under both the Montreal Protocol and the UNFCCC. The African Group did not present a unified position, and while several African parties expressed support, others appeared to take a more cautious approach, and wanted to observe the lay of the land before casting their lot with any side.

If eventually adopted, the HFC amendment could represent the first non-ODS GHG emission reduction target for developing countries, which is something these countries have been consistently fighting against under the climate regime. The precedent-setting nature of such a decision could have far-

reaching impacts on the climate regime. There would also be significant legal implications, because providing developing countries access to the Multilateral Fund for an HFC phase down would amount to direct funding for controlling GHGs that are not ozone depleting. Some also see this amendment as an opportunity to move towards leveling the playing-field in the distribution of CDM investment. They note that removing the supply of credits from HFC projects might encourage investors to look elsewhere to meet their demand, because 25% of carbon credits are currently generated from HFC destruction activities.

ODS BANKS: FOR SAVING OR DESTROYING?

Destruction of ODS banks, a key debate at MOP-20, gathered momentum at OEWG-29, pushed forward by the FSM and Mauritius proposal to authorize the Multilateral Fund to fund ODS bank destruction. While there was strong interest from all parties in destruction, the report by the Technology and Economic Assessment Panel (TEAP) signaled destruction on a "global scale" as proposed in the amendment would be prohibitively expensive. As such, parties favored a step-by-step approach of "learning by doing." Many were satisfied that the Executive Committee to the Multilateral Fund, which convened a week prior to OEWG-29, approved interim guidelines for funding further pilot project on ODS bank destruction, and underscored the pilot project approach negates the need for an immediate Protocol amendment to destroy banks.

Most parties said the amendment proposal came too soon, but at the same time expressed their commitment to the agreed approach, which will ensure progress in destruction without committing parties to destroy all banks. The EC and Brazil were politically opposed to the amendment citing the risk of creating further perverse incentives to produce HFCs and generate CDM credits for their destruction. According to the EC, the HFC issue would require resolution prior to any further consideration of an amendment to the Protocol to destroy banks.

TOWARDS MOP-21 AND COP-15

OEWG-29 launched the Montreal Protocol into the mainstream climate debate. For the first time a significant number of climate negotiators participated in the Montreal Protocol process, and deliberations considered how the Protocol and the climate regime may need to interact to address HFCs. As the world looks to Copenhagen to reach agreement on GHG emission targets, the Montreal Protocol is considered by some to be encroaching on climate territory. Others see it as the Protocol doing what it does best: identifying an environmental concern, developing a sectoral strategy, and putting in place a phase-down schedule, with financing for technological transitions.

While at the beginning of the meeting debate focused on the relative merits of housing HFCs in the Montreal Protocol or the UNFCCC, by late in the week most parties agreed the range of possibilities for HFCs would likely involve action under both fora. Only India maintained its original position, preferring to address HFCs solely under the UNFCCC.

As delegates departed from OEWG-29, eight additional small island developing states announced they were co-sponsoring the amendment proposal. Most predicted an active intersessional period in the lead up to MOP-21 in November 2009, with some suggesting major players may step in with revised proposals on

HFCs. Nevertheless, the jury was out on what effect, if any, the OEWG outcome would have on the climate change negotiation process. But for one seasoned Montreal campaigner the future was obvious. He quipped that as CO₂ has the tendency to suck all the oxygen out of the room, HFCs can only be effectively phased down under the Montreal Protocol.

UPCOMING MEETINGS

INFORMAL MEETINGS OF THE AWG-LCA AND

AWG-KP: Informal meetings of the *Ad Hoc* Working Group on Long-Term Cooperative Action (AWG-LCA) and the *Ad Hoc* Working Group under the Kyoto Protocol (AWG-KP) are scheduled to take place from 10-14 August 2009 in Bonn, Germany. Observers will be allowed. For more information contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://unfccc.int/>

JOINT MEETING OF THE OZONE OFFICERS

NETWORK OF ENGLISH-SPEAKING AND FRENCH-SPEAKING AFRICA: This meeting will be held from 17-20 August 2009 in Abuja, Nigeria. For more information, contact Jeremy Bazyé, UNEP; tel: +254-262-4281; fax: +254-262-3165; e-mail: Jeremy.Bazyé@unep.org; internet: <http://www.unep.fr/ozonation/events/index.htm>

INTERNATIONAL CONFERENCE ON GREEN

INDUSTRY IN ASIA: This conference will convene from 9-11 September 2009 in Manila, the Philippines. This meeting will focus on the theme "Managing the Transition to Resource-Efficient and Low Carbon Industries." For more information, contact: A. Lakanlale, UNIDO; tel: +43 1-26026-3690; e-mail: A.Lakanlale@unido.org; internet: <http://www.unido.org/index.php?id=7782>

AWG-LCA 7 AND AWG-KP 9: The seventh meeting of the AWG-LCA and the ninth session of the AWG-KP are scheduled to take place from 28 September - 9 October 2009 in Bangkok, Thailand. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://unfccc.int/>

HIGH-LEVEL CONFERENCE ON CLIMATE

CHANGE: TECHNOLOGY DEVELOPMENT AND TRANSFER: This Conference is scheduled to convene from 22-23 October 2009 in New Delhi, India. The Government of India and the UN Department of Economic and Social Affairs (UN DESA) are jointly organizing this high-level conference to help formulate a roadmap for technology in the context of climate change mitigation and adaptation to support the UNFCCC process. For more information, contact UN DESA; fax: +1 212-963-1267/9883; e-mail: DelhiConference@un.org; internet: http://www.un.org/esa/dsd/dsd_aofw_cc/cc_conf1009.shtml

RESUMED AWG-LCA 7 AND AWG-KP 9: The resumed seventh session of the AWG-LCA and the resumed ninth session of the AWG-KP are scheduled to take place from 2-6 November 2009, in Barcelona, Spain. For more information contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://unfccc.int/>

WORKSHOP ON QUARANTINE AND PRESHIPMENT

USE OF METHYL BROMIDE: This meeting is scheduled to take place on 3 November 2009, in Sharm el Sheikh, Egypt. For more information, contact: Ozone Secretariat; tel: +254-20-762-3850/1; fax: +254-20-762-4691; e-mail: ozoneinfo@unep.org; internet: <http://ozone.unep.org/>

TWENTY-FIRST MEETING OF THE PARTIES TO THE MONTREAL PROTOCOL (MOP-21): This meeting is scheduled to take place from 4-8 November 2009, in Sharm el Sheikh, Egypt. For more information, contact: Ozone Secretariat; tel: +254-20-762-3850/1; fax: +254-20-762-4691; e-mail: ozoneinfo@unep.org; internet: <http://ozone.unep.org/>

FIFTY-NINTH MEETING OF THE EXECUTIVE COMMITTEE TO THE MULTILATERAL FUND: This meeting is scheduled to take place from 10-14 November 2009, in Sharm el Sheikh, Egypt. For more information, contact: Secretariat of the Multilateral Fund; tel: +1-514-282-1122; fax: +1-514-282-0068; e-mail: secretariat@unmfs.org; internet: <http://www.multilateralfund.org/>

FIFTEENTH CONFERENCE OF THE PARTIES TO THE UNFCCC AND FIFTH MEETING OF THE PARTIES TO THE KYOTO PROTOCOL: UNFCCC COP-15 and Kyoto Protocol COP/MOP-5 are scheduled to take place from 7-18 December 2009 in Copenhagen, Denmark. These meetings will coincide with the 31st meetings of the UNFCCC's subsidiary bodies. Under the "roadmap" agreed at the UN Climate Change Conference in Bali in December 2007, COP-15 and COP/MOP-5 are expected to finalize an agreement on a framework for combating climate change post-2012 (when the Kyoto Protocol's first commitment period ends). For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://unfccc.int/>

GLOSSARY

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| CFCs | Chlorofluorocarbons |
| CTC | Carbon tetrachloride |
| CUEs | Critical-use exemptions |
| ExCom | Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol |
| GWP | Global warming potential |
| HCFCs | Hydrochlorofluorocarbons |
| HFCs | Hydrofluorocarbons |
| MDI | Metered-dose inhaler |
| MLF | Multilateral Fund |
| NOUs | National Ozone Units |
| ODS | Ozone-depleting substances |
| QPS | Quarantine and pre-shipment |
| TEAP | Technology and Economic Assessment Panel |
| TOCs | Technical Options Committees |