

MOP 28 HIGHLIGHTS: 10 OCTOBER 2016

The twenty-eighth Meeting of the Parties (MOP 28) to the Montreal Protocol on Substances that Deplete the Ozone Layer opened in Kigali, Rwanda on Monday, 10 October 2016.

Parties convened in the morning to hear opening statements and address organizational matters. They also discussed the Technology and Economic Assessment Panel (TEAP) report on ODS alternatives, and its assessment of the climate benefits and financial implications of the HFC phasedown schedules in the different amendment proposals.

The afternoon's discussion addressed, *inter alia*, agenda items on critical-use and essential-use exemptions (CUEs and EUEs), the Dubai pathway on HFCs, terms of reference (TOR) for the 2018–2020 Multilateral Fund (MLF) replenishment study, the TEAP and Scientific Assessment Panel (SAP) report on analysis of carbon tetrachloride (CTC) discrepancies, and a proposal to establish an *ad hoc* standards coordination group.

The HFC Management Contact Group and the Legal Drafting Group met in the evening.

OPENING SESSION

Co-Chair Paul Krajnik opened the meeting. Vincent Biruta, Minister of Natural Resources, Rwanda, reflected that the Protocol's long history of international cooperation and commitment had led to the phase-out of ODS. Biruta urged delegates to adopt an ambitious amendment on HFCs, saying such action could avoid up to half a degree of warming by the end of the century and up to a full degree of warming if accompanied by strong efforts to promote energy efficiency.

Tina Birmbili, Executive Secretary, Ozone Secretariat, thanked Amina Mohamed (Malaysia) and Blaise Horisberger (Switzerland) for their contributions, noting their participation for the last time. She concluded by urging delegates to reach an amendment that will contribute to a healthier planet and people.

Co-Chair Leslie Smith introduced the agenda (UNEP/OzL.Pro.28/1) and organization of work, which delegates adopted without amendment.

CONSIDERATION OF MEMBERSHIP OF MONTREAL PROTOCOL BODIES FOR 2017: Co-Chair Krajnik requested Parties to submit their nominations for membership of the 2017 Implementation Committee (ImpCom) and Executive Committee (ExCom), as well as the Co-Chairs for the 2017 OEWG, referring delegates to document UNEP/OzL.Pro.28/2.

FINANCIAL REPORT OF THE TRUST FUND AND BUDGETS FOR THE MONTREAL PROTOCOL: Co-Chair Krajnik invited Parties to indicate their interest in participating in a budget committee to review proposed budgets (UNEP/OzL.Pro.28/4, Corr.1 and Add.1) and prepare a draft decision.

TEAP REPORT ON UPDATED AND NEW INFORMATION ON ODS ALTERNATIVES

Co-Chair Smith introduced this item. TEAP Co-Chair Bella Maranion noted that the updated report responds to comments on HAT criteria, and provides: further information on HFC production; updated tables for total, new manufacturing, and servicing demand; and new and updated information on the availability of alternatives for foam blowing agents, MDIs and aerosols.

TEAP then highlighted, *inter alia*, that: the refrigerants and blends information remains unchanged compared to previous reports; the report provides a limited review of the OEWG 37 proposal to define HAT countries; and that completely avoiding HFC MDIs is not yet technically or economically feasible.

Responding to questions, TEAP explained difficulties in obtaining reliable data on: country-level HFC production; processing costs of HFCs vs. HFOs; and regional availability and market penetration of alternatives. TEAP said projecting emissions from leaks will require further investigation. They underscored that parties have historically taken important decisions with incomplete information, stressing the Protocol's practice of regular reviews allows for updates.

Co-Chair Smith left the agenda item open and encouraged parties to engage in informal dialogue with the TEAP.

TEAP REPORT ON ASSESSMENT OF THE CLIMATE BENEFITS AND FINANCIAL IMPLICATIONS OF THE HFC PHASEDOWN SCHEDULES IN THE AMENDMENT PROPOSALS

Co-Chair Smith introduced this agenda item. TEAP Senior Expert Lambert Kuijpers outlined the definitions the TEAP had applied to the study, noting that some information in the report was based on closed informal discussions.

TEAP Co-Chair Maranion presented the following estimated climate benefits by 2050 for the four proposed non-Annex 5 phase down schedules: 10,690 megatonnes carbon dioxide equivalent (Mt CO₂e) for the North American proposal; 11,500 Mt CO₂e for the EU proposal; 10,000 Mt CO₂e for the Indian proposal; and 12,470 Mt CO₂e for the Island States' proposal.

For the proposed Article 5 phase-down schedules, Maranion presented the following estimated climate benefits and costs to the MLF by 2050: 75,850 Mt CO₂e for the North American proposal, costing US\$ 3,440-5,250 million; 53,260 Mt CO₂e for the EU proposal, costing US\$ 5,580-8,540; 26,130 Mt CO₂e for the Indian proposal, costing US\$ 9,300-14,220 million; and 74,890 Mt CO₂e for the Island States' proposal, costing US\$ 4,550-6,950 million. She noted the report considers manufacturing conversion costs but not other costs such as those associated with project preparation, institutional strengthening, and capacity building.

Responding to questions, TEAP said it: used customary assumptions about leakage emissions; finds HFC consumption hard to forecast; did not calculate climate benefits for actions regarding HFC-23; did not calculate the climate impacts of the HAT proposal, which is not yet finalized; did not look at the

impact of proposed late Article 5 baselines; and is aware of a recent report on HFC phasedown's cumulative costs, and is discussing internally whether this approach is an appropriate way to consider the amendment proposals.

TEAP also stated: it had not received guidance on taking equipment disposal costs into account in its calculations and would have to investigate if this was possible; and that analyzing the climate benefits of the different proposals for individual regions and countries is "an enormous task."

CANADA highlighted: more than 50 gigatonnes difference in cumulative CO₂e emissions between the different proposals; that considering interim targets would yield higher climate benefits; and cumulative environmental benefits need not imply cumulative costs. EU stressed that a five-year delay implies a doubling of the annual HFC climate impact by 2030 and suggested that the EU proposal's climate benefits would have been higher, and costs lower, if the TEAP had adopted several different assumptions. SAUDI ARABIA underlined the need to consider the "bigger picture" and national circumstances.

DUBAI PATHWAY ON HFCS

Co-Chair Smith summarized progress to date on the Dubai pathway. He said the Contact Group will continue its work under Co-Chairs McInerney and Xia.

HFC MANAGEMENT CONTACT GROUP: The contact group focused on discussing the non-Article 5 baseline proposal, with some Article 5 parties questioning why there was not scope for more ambition, and several non-Article 5 parties explaining why they felt the proposal went as far as possible. The Legal Drafting Group held an organizational session afterward.

ISSUES RELATED TO EXEMPTIONS UNDER ARTICLES 2A–2I OF THE MONTREAL PROTOCOL

NOMINATIONS FOR EUEs FOR 2017: Co-Chair Smith introduced one nomination for EUEs for 2017 (UNEP/OzL.Pro.28/3, draft decision XXVIII/[A]), from China, reminding delegates it was discussed at OEWG 38. Delegates agreed to forward the draft decision 28/3 to the High-Level Segment (HLS) for adoption.

NOMINATIONS FOR CUEs FOR 2017 AND 2018: Co-Chair Smith introduced nominations for CUEs (UNEP/OzL.Pro.28/2/Add.1), noting five parties had submitted seven nominations for methyl bromide CUEs.

The Methyl Bromide Technical Options Committee (MBTOC) presented its recommendations for the five parties plus two emergency use nominations, one from Israel for museum artifacts and one from Jamaica for a flourmill. The MBTOC expressed concern that Article 5 parties may not be reporting all stocks and that only one party had provided a national management plan.

Responding to questions, MBTOC said, *inter alia*: 35–40% of quarantine and pre-shipment uses (QPS) could be replaced; and it is difficult for MBTOC to predict when parties will phase out methyl bromide, but parties have stressed their commitment to do so.

SOUTH AFRICA, CANADA and AUSTRALIA described efforts to reduce methyl bromide use, and indicated interest in working in a small group on the draft decision on CUEs. CAMEROON raised the need to limit methyl bromide use for QPS, and was encouraged by the EU to draft a proposal for future consideration.

TOR FOR THE 2018–2020 MLF REPLENISHMENT STUDY

Co-Chair Smith, introducing this item (UNEP/OzL.Pro.28/2, Annex), announced that the contact group on this subject would meet before plenary returned to this item.

TEAP/SAP REPORT ON ANALYSIS OF CTC DISCREPANCIES

Co-Chair Smith introduced this item. SAP Co-Chair Paul Newman explained the recent Stratosphere-Troposphere Processes and their Role in Climate (SPARC) report identified four emission

pathways that together account for 20 +/-5 gigagrams per year (Gg/yr) CTC, while observation-based estimates indicate 35 +/-15 Gg/yr, suggesting the CTC budget can be considered reconciled.

Newman said that SAP/TEAP recommendations include that parties: create a TEAP/SAP working group for estimating CTC emissions in support of their quadrennial assessments; hold a joint TEAP/SAP workshop to further evaluate emissions pathways and improve methodologies for estimating bottom-up CTC emissions; and request the Ozone Secretariat to forward the SPARC report's research suggestions to the Vienna Convention's Ozone Research Managers for consideration in their next report.

PROPOSAL TO ESTABLISH AN AD HOC STANDARDS COORDINATION GROUP

Co-Chair Krajnik introduced this agenda item (UNEP/OzL.Pro.28/3, draft decision XXVIII/[B]). CHINA requested a further exchange of views before forwarding the draft decision to the HLS. Delegates agreed.

COMPLIANCE AND DATA REPORTING ISSUES

Co-Chair Krajnik introduced this item. ImpCom President Ifikhar-ul-Hassan Gilani (Pakistan) highlighted the ImpCom's "light agenda" at its 56th and 57th meetings due to widespread compliance, and presented three draft decisions (UNEP/OzL.Pro.28/CRP.1).

EU requested additional time to review the draft decisions. Co-Chair Krajnik agreed to return to the agenda item on Tuesday morning.

TEAP MEMBERSHIP

Co-Chair Smith said Brazil and India had submitted membership nominations and recommended these countries take the lead in preparing a Conference Room Paper (CRP) for parties' consideration. Delegates agreed.

ISSUES RELATED TO THE HCFC PHASE-OUT

Co-Chair Krajnik introduced this issue. CANADA informed a small group of parties will submit a CRP. The UNITED ARAB EMIRATES (UAE) said his country may submit a CRP and requested time for consultation. EU expressed interest in joining.

Recalling that the agenda item is in relation to a decision on issues faced by non-Article 5 countries, the US requested clarification from Saudi Arabia and the UAE. SAUDI ARABIA responded that the HFC Management Contact Group is considering baselines calculated using both HCFC and HFC components.

Co-Chair Krajnik suggested postponing discussion until the CRPs are available.

AVAILABILITY OF RECOVERED, RECYCLED OR RECLAIMED HALONS

Co-Chair Smith introduced this issue, noting there have been no submissions. He suggested closing the agenda item. Delegates agreed.

IN THE CORRIDORS

MOP 28 began promptly with the consideration of the TEAP reports. Although a few delegates appeared frustrated by the number of times the TEAP said information is not available, others emphasized the Protocol has a history of taking action without complete information. One expressed appreciation for what the TEAP was able to achieve in six weeks, remarking, "countries like to ask the unknowable of TEAP, and the Panel does its best to provide the best possible estimate from what is actually known."

In contrast to the straightforward back-and-forth among the TEAP and delegates, less clarity was achieved on the HFC amendments. Several non-Article 5 parties expressed frustration with Article 5 countries for "not putting their cards on the table." In desperation, a few parties directly approached their counterparts for more details on the two proposed Article 5 groups. As the Contact Group met into the evening, some were left wondering when, or if, parties would "put the agreement into ink."