



Distr.: General
7 September 2017

Original: English



**United Nations
Environment
Programme**

**Eleventh meeting of the Conference of
the Parties to the Vienna Convention
for the Protection of the Ozone Layer**

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

Montreal, Canada, 20–24 November 2017

**Issues for discussion by and information for the attention of the
Conference of the Parties to the Vienna Convention at its
eleventh meeting and the Twenty-Ninth Meeting of the Parties
to the Montreal Protocol**

Note by the Secretariat

I. Introduction

1. The present note sets out an overview of the substantive issues on the provisional agenda for the joint eleventh meeting of the Conference of the Parties to the Vienna Convention for the Protection of the Ozone Layer and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. Section II provides an overview of the preparatory segment and section III of the high-level segment. For most agenda items, a brief summary is given of the background and the related discussion that took place during the thirty-ninth meeting of the Open-ended Working Group of the Parties to the Montreal Protocol. Some agenda items will be reviewed further in a set of supplementary reports to be issued by the Technology and Economic Assessment Panel. Once those reports have been completed, the Secretariat will prepare an addendum to the present note in which it will summarize the Panel's findings on those items.

2. While the parties to the Montreal Protocol meet annually, the Conference of the Parties to the Vienna Convention meets only once every three years. In the years in which the meetings of the two bodies coincide, they take place jointly. The custom at these joint meetings is to divide the work of the meetings into two segments which cover both Vienna Convention and Montreal Protocol issues: a three-day preparatory segment and a two-day high-level segment. During the preparatory segment the parties negotiate on issues and draft decisions that are subsequently considered and adopted formally during the high-level segment.

II. Overview of items on the agenda for the eleventh meeting of the Conference of the Parties to the Vienna Convention and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol

A. Opening of the preparatory segment (item 1 of the provisional agenda for the preparatory segment)

3. The preparatory segment of the joint meeting is scheduled to be opened on Monday, 20 November 2017, at 10 a.m. at the Conference Centre of the International Civil Aviation Organization (ICAO), 999 Robert-Bourassa Boulevard, Montreal, Canada.

4. The Secretariat has implemented a new registration system that will facilitate the registration of participants for the joint meeting and its associated meetings. Emails containing the links to the invitation letter and registration system along with detailed instructions on the new registration process were sent out to all parties and invited observers on 29 August 2017. Pre-registered participants will receive priority passes by email a few weeks before the meeting. Upon presentation of a priority pass at the registration desk at the meeting venue, either in hard copy or electronic format on a hand-held device, meeting badges will be issued to participants.

5. Additional information about the registration process and the logistics of the meeting may be found in an information note prepared by the Secretariat available at: <http://conf.montreal-protocol.org/meeting/mop/cop11-mop29/>. On-site registration will start at 8 a.m. on Sunday, 19 November, and thereafter at 8 a.m. every day for the duration of the meeting. Participants are encouraged to pre-register well in advance of the meeting via the Secretariat's new registration system.

6. In addition, as this will be a virtually paperless meeting, participants are urged to bring their own laptops and hand-held devices for accessing meeting documents from the meeting portal.

7. The preparatory segment will be chaired jointly by the co-chairs of the Open-ended Working Group, Mr. Cheikh Ndiaye Sylla (Senegal) and Ms. Cynthia Newberg (United States of America).

Statements by the representatives of the Government of Canada and the United Nations Environment Programme (items 1 (a) and (b) of the provisional agenda for the preparatory segment)

8. Welcoming statements will be made by representatives of the Government of Canada and the United Nations Environment Programme (UNEP).

B. Organizational matters (item 2 of the provisional agenda for the preparatory segment)

1. Adoption of the agenda of the preparatory segment (item 2 (a) of the provisional agenda for the preparatory segment)

9. The provisional agenda for the preparatory segment is set forth in section I of document UNEP/OzL.Conv.11/1-UNEP/OzL.Pro.29/1 and will be before the parties for adoption. The parties may wish to adopt this agenda, including any items that they may agree to raise under item 6, "Other matters".

2. Organization of work (item 2 (b) of the provisional agenda for the preparatory segment)

10. Under this item, the co-chairs are expected to present a proposal to the parties on how they wish to proceed with the work on the items on the agenda for the duration of the preparatory segment.

C. Financial reports and budgets of the trust funds for the Vienna Convention and the Montreal Protocol (item 3 of the provisional agenda for the preparatory segment)

11. The Ozone Secretariat, which serves both the Vienna Convention and the Montreal Protocol, has traditionally had separate budgets for the Convention and the Protocol, with some shared budget lines. While the Montreal Protocol budget is considered annually, the Vienna Convention budget is reviewed and approved only in the years in which the Conference of the Parties to the Vienna Convention meets. Information about the budgets and financial reports for the trust funds for the Vienna Convention and the Montreal Protocol is contained in documents UNEP/OzL.Conv.11/4 and Add.1, and UNEP/OzL.Pro.29/4 and Add.1, respectively.

12. For the trust fund for the Vienna Convention, the key issues that the parties may wish to consider include: (a) the proposed revised budget for 2017 which has decreased by 4 per cent owing to a reduction in staff costs, meeting costs and other operational costs; (b) the proposed budgets for 2018 and 2019, reflecting a 2 per cent increase in salary costs, but an overall decrease; (c) the proposed budget for 2020, reflecting a 2 per cent salary increase and including meeting costs for the meeting of the Conference of the Parties and the meeting of the Ozone Research Managers; (d) the fund balance, which is expected to be insufficient by the end of 2020, and the need for mitigation plans; and (e) three funding and contribution options for the triennium 2018–2020.

13. For the trust fund for the Montreal Protocol, the key issues that the parties may wish to consider include: (a) the proposed revised budget for 2017 with a 4 per cent overall decrease; (b) the proposed budgets for 2018 and 2019 with a 9 per cent increase in 2018 and an additional 2 per cent in 2019; (c) the status of the fund balance of the trust fund in comparison to the depleted fund balance of the previous year; and (d) contributions by the parties. Information on the follow-up on outstanding contributions and arrears, as required by decision XXVIII/16, was reported in the note by the Secretariat on the indicative financial report on the trust funds for the Vienna Convention and the Montreal Protocol submitted to the Open-ended Working Group at its thirty-ninth meeting (UNEP/OzL.Pro.WG.1/39/INF/2).

14. Under this agenda item, it is expected that, in accordance with their usual practice, the parties will establish a budget committee to deliberate on and recommend a draft decision on the budgets for adoption, as appropriate, during the high-level segment. Placeholder draft decisions on the financial reports and budgets for the Vienna Convention and the Montreal Protocol, prepared by the Secretariat, may be found in the note by the Secretariat on draft decisions for the consideration of the Conference of the Parties to the Vienna Convention at its eleventh meeting and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section III, draft decisions XI/[AA] and XXIX[CC], respectively).

D. Montreal Protocol issues (item 4 of the provisional agenda for the preparatory segment)

1. Replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol (item 4 (a) of the provisional agenda for the preparatory segment)

(a) Supplementary report of the Technology and Economic Assessment Panel replenishment task force

15. In accordance with decision XXVIII/5, the Technology and Economic Assessment Panel carried out a study on the assessment of funding requirement for the replenishment of the Multilateral Fund for the period 2018–2020, and indicative amounts of funding needed for the trienniums 2021–2023 and 2024–2026, and presented the report to the Open-ended Working Group at its thirty-ninth meeting. The report of the Panel's replenishment task force was set out in volume 4 of the Panel's May 2017 report and an executive summary was included in an addendum to the note by the Secretariat on issues for discussion by and information for the attention of the Open-ended Working Group at its thirty-ninth meeting (UNEP/OzL.Pro.WG.1/39/2/Add.1). Table 1 below shows the Panel's estimated funding requirements for the next triennium under each funding component while table 2 shows total funding requirements for the next three trienniums, as set out in the report.

16. Following the presentation by the Panel's task force, the Open-ended Working Group discussed the matter, including in a contact group, and agreed that the Panel be requested to perform additional work in a supplementary report on replenishment 2018–2020 and to present it to the Twenty-Ninth Meeting of the Parties. The agreed list of issues arising from the first meeting of the replenishment contact group for possible consideration by the Panel in preparing that supplementary report is set out in the annex to the present note for ease of reference. Once the Panel's supplementary report has been completed, the Secretariat will make it available on the meeting portal and include a summary of the report in an addendum to the present note. The initial report of the Panel's task force is available as background document for the parties.¹ Meanwhile, the Secretariat has prepared a placeholder decision on the 2018–2020 replenishment of the Multilateral Fund for the consideration of the parties (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section III, draft decision XXIX/[DD]).

¹ Available at: http://conf.montreal-protocol.org/meeting/mop/cop11-mop29/presession/Background-Documents/TEAP-XXVIII_5-TF-Report-May%202017.pdf.

Table 1
Total funding requirement for the replenishment of the Multilateral Fund 2018–2020 under each funding component as specified in the task force report
(millions of United States dollars)

<i>Components considered</i>	<i>Funding requirement</i>
HPMP activities	
- Non-LVCs ^a and LVCs HPMPs and HPMP verification	391.77–420.90
- HPMPs, stage III	0.14–70.95
Total	391.91–491.85
Total for HCFC production phase-out, HPPMPs^b	67.22
Non-investment and supporting activities	
Non-investment activities	
- Institutional strengthening	31.08
- HPMP stage II preparation	4.35
- HPMP stage III preparation	4.35
- HCFC demonstration projects	0.0–10.0
Sub-total, non-investment activities	39.78–49.78
Supporting activities	
- UNEP Compliance Assistance Programme	34.80
- Agency core unit costs	17.84
- Secretariat and Executive Committee	20.16
- Treasurer	1.50
Sub-total, supporting activities	74.30
Total	114.08–124.08
Enabling activities for HFC phase-down^c	
- Non-investment projects (including project preparation and demonstration projects)	13.5–20.2
- Investment projects	8.0–24.0
Total	21.5–44.2
HFC-23 mitigation	
- Enabling activities before 2020	0.8
- Capital and operating costs (2020 only)	7.2–20.7
Total	8.0–21.5
Grand total	602.71–748.85

Notes:

^a Low-volume countries.

^b HCFC production phase-out management plan.

^c As defined in paragraph 20 of decision XXVIII/2: capacity-building and training, institutional strengthening, Article 4B licensing, reporting, demonstration projects and development of national strategies.

Table 2
Total funding requirement for the replenishment of the Multilateral Fund for the next three trienniums
(millions of United States dollars)

<i>Triennium</i>	<i>2018–2020</i>	<i>2021–2023</i>	<i>2024–2026</i>
Total funding requirement	602.71–748.85	634.8–771.0	548.5–695.5

(b) Extension of the fixed-exchange-rate mechanism for 2018–2020

17. The fixed-exchange-rate mechanism, which was first introduced at the Eleventh Meeting of the Parties to the Montreal Protocol, has since been used by many parties contributing to the Multilateral Fund to ease administrative difficulties in making contributions in currencies other than their own and to promote timely payments. One of the mechanism's stated objectives is to ensure that there is no adverse impact on the level of resources available to the Multilateral Fund. Calculations by the treasurer in 2017 have shown that the use of the mechanism has resulted in an overall decrease in contributions received. Starting with the third replenishment of the Multilateral Fund in 2000, the mechanism has included a provision to determine the average exchange rate to be applied in using the mechanism in the following replenishment. The parties have also been determining the time period for averaging exchange rates.

18. The scale of assessments and rates of exchange for contributions to the forthcoming 2018–2020 replenishment of the Multilateral Fund is set out in the note by the secretariat on the matter (UNEP/OzL.Pro.29/INF/1). The scale has been adjusted for the purpose of the Multilateral Fund contributions on the basis of the United Nations scale of assessments for the period 2016–2018. The adjusted scale of assessments and the rates of exchange are presented as received from the United Nations Environment Programme in its capacity as Treasurer of the Multilateral Fund. Document UNEP/OzL.Pro.29/INF/1 will be revised closer to the time of the Twenty-Ninth Meeting of the Parties to provide further, up-to-date information on the inflation rate and expected contribution amounts for the information of the parties at the meeting.

19. As in the past, the Secretariat has included a placeholder draft decision based on the previous decision taken by the parties on the mechanism in 2014 for the consideration of the parties (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section III, draft decision XXIX/[EE]). During the preparatory segment, the parties may wish to consider and make recommendations, as appropriate, on the application of the mechanism, taking into account the current situation with regard to its operation.

2. Kigali Amendment to the Montreal Protocol to phase down hydrofluorocarbons**(a) Status of ratification of the Kigali Amendment to the Montreal Protocol (item 4 (b) (i) of the provisional agenda for the preparatory segment)**

20. By its decision XXVIII/1, the Twenty-Eighth Meeting of the Parties to the Montreal Protocol adopted the Kigali Amendment to the Montreal Protocol to phase down hydrofluorocarbons (HFCs) listed in Annex F to the amended Protocol. The Amendment will enter into force on 1 January 2019, provided that at least 20 instruments of ratification, acceptance or approval of the Amendment have been deposited with the Secretary-General of the United Nations by that date by parties to the Protocol. In the event that the condition of achieving 20 instruments of ratification has not been fulfilled by that date, the Amendment will enter into force on the ninetieth day following the date on which the condition has been fulfilled.²

21. The parties will be informed on the status of ratification of the Kigali Amendment to the Montreal Protocol. Universal ratification of the Amendment is necessary for achieving the expected climate change mitigation while at the same time protecting the ozone layer. At the time of preparation of the present note, eight parties had ratified the Amendment: Chile, Mali, the Federated States of Micronesia, the Marshall Islands, Norway, Palau, Rwanda and Tuvalu. The Secretariat has prepared draft decisions on the matter for the consideration of the parties (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section IV, draft decisions XI/[AAA] and XXIX/[AAA]).

(b) Data reporting under Article 7 of the Montreal Protocol, including related issues and destruction technologies for substances in Annex F to the Montreal Protocol (item 4 (b) (ii) of the provisional agenda for the preparatory segment)

22. At the thirty-ninth meeting of the Open-ended Working Group, under agenda item 3 on the Kigali Amendment to the Montreal Protocol to phase down HFCs, the parties considered a number of key issues necessary for planning the implementation of the Amendment, with respect to reporting of data, global warming potential (GWP) values for some HCFCs and the process for approving destruction technologies for HFCs. A contact group was established to facilitate more detailed discussions on all those issues, including in particular:

- (a) Timeline for reporting of baseline data for HFCs by parties operating under paragraph 1 of Article 5 (Article 5 parties);
- (b) Proposed revised data reporting forms and guidelines;

² See article IV of the Amendment, on entry into force.

- (c) Reporting of mixtures and blends containing HFCs;
- (d) Trade with non-parties and associated reporting;
- (e) GWP values for HCFC-141 and HCFC-142;
- (f) Process for approving destruction technologies for HFCs.

23. During the meeting, the contact group concluded its initial discussions on the proposed revised data reporting forms and guidelines and the reporting of mixtures and blends containing HFCs but a number of parties sought to provide additional or more comprehensive comments on those two issues to the Secretariat before decisions were taken on them. It was therefore agreed that the parties would be given until 30 August 2017 to submit their comments to the Secretariat thereby allowing the Secretariat sufficient time to review the comments and make the necessary revisions to the proposed reporting forms for further consideration by the Twenty-Ninth Meeting of the Parties.

24. By the time of preparation of the present note, the Secretariat had received feedback from eight parties, namely Argentina, Armenia, Australia, Barbados, European Union, Malaysia, United States of America and Zimbabwe. The revised reporting forms and guidelines will be presented in the note by the Secretariat on the matter (UNEP/OzL.Pro.29/7).

25. With respect to issues related to destruction technologies, a draft decision was put forward by Australia, Canada, the European Union and the United States. In that draft decision, the parties noted the need to approve destruction technologies for HFCs; to keep the list of approved destruction technologies annexed to decision XXIII/12 up to date; and to approve on a provisional basis the destruction technologies for ozone-depleting substances for the destruction of substances listed in Annex F. The draft decision also requested the Technology and Economic Assessment Panel to report to the Open-ended Working Group at its fortieth meeting on an assessment of the provisionally approved destruction technologies with a view to confirming their applicability to HFCs; including any other technologies in the list of approved destruction technologies. Furthermore, parties were invited to submit to the Secretariat relevant information by a date to be determined.

26. The Working Group agreed to forward the draft decision to the Twenty-Ninth Meeting of the Parties for further consideration (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section II, draft decision XXIX/[A]). In their further consideration of the matter, parties may wish to take into account a similar approach that was adopted for process agent applications under decision VI/10, by which the parties agreed to an interim period during which process agents uses were to be treated in a manner similar to feedstock uses pending the outcome of a study by the Technology and Economic Assessment Panel. The interim arrangement was then extended by decision VII/10 before a final decision was taken on the matter (decision X/14).

27. During the preparatory segment it is expected that the parties will continue to discuss data reporting under Article 7 of the Montreal Protocol and related issues. It was agreed by the Open-ended Working Group at its thirty-ninth meeting that the contact group established at that meeting would reconvene at the Twenty-Ninth Meeting of the Parties in order to pursue discussions on all matters under its mandate.

3. Issues related to exemptions from Article 2 of the Montreal Protocol (item 4 (c) of the provisional agenda for the preparatory segment)

(a) Nominations for essential-use exemptions for 2018 (item 4 (c) (i) of the provisional agenda for the preparatory segment)

28. During the thirty-ninth meeting of the Open-ended Working Group, the Technology and Economic Assessment Panel through its Medical and Chemicals Technical Options Committee reported on its evaluation of one nomination for an essential-use exemption for 2018 received from one party, China, for the use of 65 tonnes of carbon tetrachloride for the testing of oil, grease and total petroleum hydrocarbons in water. The review and recommendation of the Committee in respect of this nomination may be found in volume 1, subsection 5.2 of the Panel's May 2017 report.³ The representative of China introduced a draft decision on the matter which, after plenary discussions and further consultations, was revised. The Working Group decided to forward the revised version of the draft decision to the Twenty-Ninth Meeting of the Parties for further consideration (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section II, draft decision XXIX/[B]).

³ <http://conf.montreal-protocol.org/meeting/oweg/oweg-39/presession/Background-Documents/TEAP-Progress-Report-May2017.pdf>.

29. During the preparatory segment the parties may wish to consider the draft decision further with a view to forwarding it to the high-level segment for possible adoption.

(b) **Nominations for critical-use exemptions for 2018 and 2019 (item 4 (c) (ii) of the provisional agenda for the preparatory segment)**

30. During the thirty-ninth meeting of the Open-ended Working Group, the Technology and Economic Assessment Panel, through its Methyl Bromide Technical Options Committee, reported that it had received and reviewed two critical-use nominations for methyl bromide submitted by two non-Article 5 parties – Australia and Canada – and six nominations from three Article 5 parties – Argentina, China and South Africa. The details of the evaluation and interim recommendations on each nomination may be found in volume 2 of the Panel’s May 2017 report.⁴

31. Bilateral discussions took place in the margins of the thirty-ninth meeting of the Open-ended Working Group between the Methyl Bromide Technical Options Committee and nominating parties regarding the Committee’s interim recommendations in more detail. Bilateral consultations were expected to continue during the intersessional period to enable the Committee to carry out the final evaluation and formulate final recommendations for consideration by the Twenty-Ninth Meeting of the Parties. A summary of the final evaluation report of the Committee will be included in the addendum to the present note.

32. In the meantime, the initial recommendations presented by the Methyl Bromide Technical Options Committee at the thirty-ninth meeting of the Open-ended Working Group are shown in table 3 below. During the preparatory segment, the parties may wish to consider the issue further with a view to adopting a relevant decision during the high-level segment.

Table 3

Summary of the nominations for 2018 and 2019 critical-use exemptions for methyl bromide submitted in 2017 and the interim recommendations of the Methyl Bromide Technical Options Committee (Tonnes)*

<i>Party</i>	<i>Nomination for 2018</i>	<i>Interim recommendation</i>	<i>Nomination for 2019</i>	<i>Interim recommendation</i>
Parties not operating under paragraph 1 of Article 5 and sector				
1. Australia				
Strawberry runners			28.980	[23.180] ^a
2. Canada				
Strawberry runners	5.261	[Unable to assess] ^b		
Total	5.261		28.980	[23.180]
Parties operating under paragraph 1 of Article 5 and sector				
3. Argentina				
Tomato	75.400	[47.700] ^c		
Strawberry fruit	45.300	[29.000] ^d		
4. China				
Ginger open field	74.617	[68.880] ^e		
Ginger protected	18.360	[18.360]		
5. South Africa				
Mills	5.000	[2.900] ^f		
Structures	45.000	[42.750] ^g		
Total	268.938	[209.590]		

* Tonne = metric ton.

^a The 20 per cent reduction in the nomination is made to conform to the standard presumptions of the Methyl Bromide Technical Options Committee (MBTOC) of 20.0 g/m² regarding dosage rates of methyl bromide.

^b MBTOC is unable to assess this nomination, noting that a key chemical alternative, chloropicrin (Pic), is currently permitted for use in mixtures with methyl bromide, but its use alone or in combination with other alternatives is banned due to concerns over groundwater contamination in Prince Edward Island. The party confirmed that testing of groundwater for chloropicrin was not being conducted. In view of this situation, MBTOC seeks guidance from the parties as to how best to assess this nomination.

^c The reduction in the nomination is based on a lower dosage rate (26.0 to 15.0 g/m²) for the adoption of barrier films (for example, totally impermeable film (TIF)) over a transition period of three years, as per MBTOC standard presumptions, for a total of 54.1 tonnes (including 10.8 tonnes for Mar Del Plata and 43.3 tonnes for La Plata). The

⁴ <http://conf.montreal-protocol.org/meeting/oweg/oweg-39/presession/Background-Documents/MBTOC-CUN-Interim-report-May2017.pdf>.

nomination was further reduced by 10 per cent (6.4 tonnes, based on the 2017 critical use exemption) to accommodate the uptake of other chemical and non-chemical alternatives, such as integrated pest management (nematicides, biofumigation with chicken manure, steam and 1.3-D/Pic (Agrocelhone)).

^d The reduction in the nomination is based on a lower dosage rate (26.0 to 15.0 g/m²) for the adoption of barrier films (for example, TIF) over a transition period of three years for use with remaining methyl bromide treatments and a subsequent decrease as per MBTOC standard presumptions. A further 10 per cent reduction was applied for the adoption of available alternatives using best practice (namely, 1.3-D/Pic, rotations and improved application techniques for fumigants).

^e The reduction in the nomination is derived from the MBTOC calculation, based on the adoption of barrier films in the total nominated area at the rate of 30 g/m² (229.59 ha x 30 g/m² = 68.88 tonnes).

^f The 29 per cent reduction in the nomination is based on the amount of methyl bromide sufficient for one fumigation per year and per mill as a transitional measure to allow time for the adoption and optimization of alternatives in an integrated pest management system. The recommendation is based on a dosage of 20 g/m³ (MBTOC standard presumptions), applied to well-sealed structures.

^g The nomination has been reduced by 5 per cent to account for the planned implementation of control measures involving the application of heat.

4. Use of controlled substances as process agents (item 4 (d) of the provisional agenda for the preparatory segment)

33. In accordance with decision XXII/8, the Medical and Chemicals Technical Options Committee under the Technology and Economic Assessment Panel reviewed the 14 process agent uses currently listed in table A of decision XXIII/7 and information provided by the relevant parties in their process agent reports, with a view to making any necessary recommendations to the parties on further actions to reduce uses and emissions of process agents. The most recent decision on process agent uses, decision XXIII/7,⁵ contains the latest table A, while associated limits of those uses are listed in table B of that decision. The Panel recommended:

(a) The removal of three process agent uses numbered 10, 11 and 12 from table A;

(b) The removal of the United States of America from the column of table A headed “Permitted parties” for the process application numbered 4 as the party has not reported this use for 2014 onwards;

(c) That parties may wish to consider updating their information on the remaining 11 process agent uses.

34. During the thirty-ninth meeting of the Open-ended Working Group, parties highlighted the great progress being made with respect to process agent uses and noted that certain uses were no longer being reported, which was an indication that those process agent uses had been eliminated. A draft decision, which was subsequently revised, was presented to the meeting by the European Union seeking to update table A of decision X/14 to remove these uses. The revised version of the draft decision also urged parties to update their information on the use of controlled substances as process agents and to provide information to the Ozone Secretariat by 31 December 2017 on the implementation and development of emissions reduction techniques. It further sought to request the Technology and Economic Assessment Panel to report to the Open-ended Working Group at its forty-first meeting on the industrial application of any alternative technologies employed by parties that had already eliminated the use of controlled substances as process agents in the processes listed in table A, as updated by the proposed decision. Following informal consultations, the Working Group agreed to forward the draft decision to the Twenty-Ninth Meeting of the Parties for further consideration (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section II, draft decision XXIX/[D]).

35. During the preparatory segment, the parties may wish to consider the draft decision further with a view to forwarding it to the high-level segment for possible adoption.

5. Key messages from the Technology and Economic Assessment Panel 2017 report (item 4 (e) of the provisional agenda for the preparatory segment)

36. At the thirty-ninth meeting of the Open-ended Working Group, the Technology and Economic Assessment Panel presented the key messages included in its progress report. One of those messages related to the information provided by the Halons Technical Options Committee on the availability of recovered, recycled or reclaimed halons in response to decision XXVI/7. In particular, the Halons Technical Options Committee reiterated that there was not enough halon 1301 for civil aviation, and although the current estimate for the run-out date was 2035, there were many unknown factors that could bring that date forward. There was, therefore, a need to better quantify the rate of increase of installed amounts and the resulting emissions from civil aviation. The Committee further suggested

⁵ See <http://ozone.unep.org/en/handbook-montreal-protocol-substances-deplete-ozone-layer/132>.

that parties might wish to consider requesting that the International Civil Aviation Organization (ICAO) form a working group, or similar body, in conjunction with the Halons Technical Options Committee, to quantify current and future civil aviation installed base and emissions from aircraft, and to report back thereon to the Thirty-First Meeting of the Parties.

37. Following informal discussions in the margins of the meeting, the Committee co-chairs provided additional information. The Working Group agreed that the matter would be taken up again at the Twenty-Ninth Meeting of the Parties.

38. During the preparatory segment the parties may wish to discuss the matter further and make recommendations for action as appropriate.

6. Phase-out of hydrochlorofluorocarbons (item 4 (f) of the provisional agenda for the preparatory segment)

39. In accordance with decision XXVIII/8 on issues on the phase-out of hydrochlorofluorocarbons (HCFCs), the Technology and Economic Assessment Panel presented a report at the thirty-ninth meeting of the Open-ended Working Group on the amounts of HCFCs that might be needed after 1 January 2020 in non-Article 5 parties for essential uses, for servicing requirements for refrigeration and air-conditioning equipment and other sectors, and for the basic domestic needs of Article 5 parties. The report concluded that beyond 2020 there would not be a need for production of HCFCs in non-Article 5 parties to satisfy the basic domestic needs of Article 5 parties. The report also concluded that there might, however, be a need for essential uses and servicing in refrigeration and air-conditioning as well as in the fire protection sector and some niche solvent applications. The Panel also noted that it had identified several manufacturing processes that used small amounts of specific HCFCs (i.e., HCFC-141b and HCFC-225ca/cb) as solvents in processes that might be considered similar to process agent uses, and sought clarification by the parties as to how to treat any HCFC solvent uses in processes that were similar to process agents beyond 2020.

40. A draft decision was introduced by Australia, Canada, Japan and the United States requesting the Technology and Economic Assessment Panel to assess non-Article 5 parties' requirements for HCFCs between 2020 and 2030, and beyond, with respect to volumes and areas of possible needs in fire suppression sectors, as solvents and in other possible niche uses. The draft decision also invited parties and other interested entities to submit relevant information to the Secretariat by 31 December 2017 and requested the Panel to produce its report by 1 March 2018.

41. Despite discussions both in plenary as well as in the margins of the meeting, agreement on the draft decision could not be reached during the meeting. The Working Group therefore agreed to forward the draft decision (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section II, draft decision XXIX/[C]) to the Twenty-Ninth Meeting of the Parties for further consideration, on the understanding that additional discussions would take place among interested parties during the intersessional period.

42. During the preparatory segment, the parties may wish to discuss the matter further with a view to forwarding the draft decision to the high-level segment for possible adoption.

7. Energy efficiency (decision XXVIII/3)

(a) Report by the Technology and Economic Assessment Panel on information submitted by parties on energy efficiency opportunities in the refrigeration and air-conditioning sector (item 4 (g) (i) of the provisional agenda for the preparatory segment)

43. By decision XXVIII/3 on energy efficiency, the parties requested the Technology and Economic Assessment Panel to review energy efficiency opportunities in the refrigeration, air-conditioning and heat pump sectors related to a transition to climate-friendly alternatives. In addition, parties were invited to submit to the Secretariat by May 2017, on a voluntary basis, any relevant information on energy efficiency innovations in those sectors. The Panel was further requested to assess the information submitted by parties and prepare a report for consideration by the Twenty-Ninth Meeting of the Parties.

44. To date, the Ozone Secretariat has received submissions from the following parties: Armenia, Australia, Canada, China, Colombia, Egypt, El Salvador, Estonia, European Union, Ghana, Grenada, Guinea on behalf of the African Group, Japan, Mexico, Morocco, Paraguay, Rwanda, Switzerland, United States of America and Viet Nam. The submissions have been shared with the Technology and Economic Assessment Panel and may be found in document UNEP/OzL.Pro.WG.1/39/INF/5/ which was presented at the thirty-ninth meeting of the Open-ended Working Group.⁶

⁶ Available at: <http://conf.montreal-protocol.org/meeting/mop/cop11-mop29/presession/SitePages/Home.aspx>.

45. Once the Technology and Economic Assessment Panel's report has been completed, the Secretariat will post it on the meeting portal and include a summary of the report in an addendum to the present note.

(b) Issues related to financial and technical support for energy efficiency in parties operating under paragraph 1 of Article 5 (item 4 (g) (ii) of the provisional agenda for the preparatory segment)

46. Further to the above-mentioned provisions of decision XXVIII/3 on energy efficiency, the parties recognized in that decision that the phase-down of HFCs under the Montreal Protocol would present additional opportunities to catalyse and secure improvements in the energy efficiency of appliances and equipment. The parties also appreciated the fact that the improvements in energy efficiency could deliver a variety of co-benefits for sustainable development, including for energy security, public health and climate mitigation. On this basis, matters related to energy efficiency were discussed extensively at the thirty-ninth meeting of the Open-ended Working Group.

47. During those discussions, two draft decisions were proposed by two groups of parties on issues related to financial and technical support for energy efficiency in Article 5 parties for consideration by the Working Group: one was proposed by India, Bahrain, Kuwait, Lebanon and Saudi Arabia, and the other was proposed by Rwanda on behalf of the African Group. The two draft decisions were later merged into a single draft decision which recognized the importance of energy efficiency for Article 5 parties and requested the Technology and Economic Assessment Panel to assess the technology and funding requirements of the Article 5 parties to maintain and/or enhance energy efficiency in the refrigeration and air-conditioning and heat pump sectors while phasing down HFCs; to assess the elements of incremental capital and operating costs for maintaining and/or enhancing energy efficiency on transitioning to low-GWP alternatives; and to submit its report thereon by the fortieth meeting of the Open-ended Working Group in 2018, and provide annual updates subsequently. The draft decision further requested the Ozone Secretariat to organize a workshop on energy efficiency opportunities, with specific reference to the phasing down of HFCs, at the commemoration of the thirtieth anniversary of the Montreal Protocol.

48. The Working Group agreed to forward the draft decision (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section II, draft decision XXIX/[E]) to the Twenty-Ninth Meeting of the Parties for further consideration.

49. During the preparatory segment, the parties may wish to consider the matter further with a view to forwarding the draft decision to the high-level segment for possible adoption.

8. Safety standards relevant to low-global-warming-potential alternatives (item 4 (h) of the provisional agenda for the preparatory segment)

50. In decision XXVIII/4, the parties recognized the importance of timely updating of international standards for flammable low-GWP refrigerants. They also highlighted the importance of the promotion of actions that allowed for the safe market introduction, manufacturing, operation, maintenance and handling of zero-GWP and low-GWP refrigerants that were alternatives to HCFCs and HFCs. Pursuant to that decision, a one-day workshop on safety standards relevant to the safe use of low-GWP alternatives was held prior to the thirty-ninth meeting of the Open-ended Working Group, a summary of which was presented to the Open-ended Working Group by one of the workshop facilitators on behalf of the rapporteurs (UNEP/OzL.Pro.WG.1/39/4).

51. At its thirty-ninth meeting, the Open-ended Working Group also considered a report by the Technology and Economic Assessment Panel on safety standards which had been requested by the parties in decision XXVIII/4. In that decision, the Panel had been requested to establish a task force that would liaise and coordinate with standards organizations to support the timely revision of international safety standards relevant for low-GWP alternatives, and to report to the Open-ended Working Group on progress in the revision of international safety standards; information concerning tests and/or risk assessments and their results relevant to safety standards; and assessment of the implications of international standards for the implementation of the decisions of the Meeting of the Parties on the accelerated phase-out of HCFCs and HFC control measures and recommendations to the parties.

52. Several representatives who spoke in response to the presentation of the report by the Panel said that the current safety standards posed a barrier to the adoption of climate-friendly alternatives and called for rapid action to complete the development of new standards, harmonizing existing standards and revising current standards by the end of 2018. Other parties recognized the importance of adapting international standards at the national level to suit local conditions and the need of countries with high ambient temperatures for safety standards that reflected their very specific

conditions. A number of parties also underscored the importance of training and capacity-building for the proper application of safety standards. Furthermore, some parties sought full clarity as to who would be responsible for the consequences of potential accidents, should safety standards prove inadequate, stressing that liability issues would have to be very clear at every step in the standards development process.

53. In terms of concrete actions: (a) a number of representatives highlighted the importance of training and capacity-building for the proper application of safety standards; (b) representatives highlighted their ideas with regard to modalities for consultations with the standards organizations; (c) a group of parties suggested that an overview table listing the various standards and their status, updated on a regular basis, would be a good means of keeping the parties informed of the progress of safety standards.

54. During the preparatory segment, the parties may wish to further consider the suggestions made on safety standards and recommend further action as appropriate.

9. Consideration of hydrofluorocarbons not listed in Annex F to the Montreal Protocol (item 4 (i) of the provisional agenda for the preparatory segment)

55. At the thirty-ninth meeting of the Open-ended Working Group, under agenda item 8, on consideration of hydrofluorocarbons not listed in Annex F to the Montreal Protocol, two parties – Norway and Switzerland – reintroduced a draft decision which had been submitted to the Twenty-Eighth Meeting of the Parties but had been withdrawn owing to time constraints. The aim of the draft decision was to urge parties to adopt a precautionary approach to the development and promotion of HFCs of significant GWP not listed as controlled substances in Annex F to the Montreal Protocol, given the existence of other HFCs with minimal or no known production or consumption that were not currently controlled under Article 2J of the Protocol. The two parties indicated that the aim of the draft decision was not to add substances to Annex F to the Protocol.

56. Following discussions in an informal group, the Open-ended Working Group agreed that the proponents of the draft decision and interested parties would consider the matter further intersessionally and that a revised draft decision would be presented to the Twenty-Ninth Meeting of the Parties for its consideration.

57. During the preparatory segment, the parties may wish to further consider the matter and submit any draft decision for consideration and possible adoption during the high-level segment.

10. Nomination and appointment of co-chairs and members of the Technology and Economic Assessment Panel and its technical options committees (item 4 (j) of the provisional agenda for the preparatory segment)

58. Information on the status of membership of the Technology and Economic Assessment Panel and its technical options committees is included in annex 3 of volume 1 of the Panel's May 2017 progress report. The addendum to the note by the Secretariat for the thirty-ninth meeting of the Open-ended Working Group (UNEP/OzL.Pro.WG.1/39/2/Add.1) included a summary table (table 4) listing the co-chairs and members whose memberships will expire at the end of 2017. The expertise currently needed by the Panel and its technical options committees is identified in the "matrix of needed expertise" set out in annex 4 to volume 1 of the Panel's May 2017 progress report and is also posted on the Ozone Secretariat website (<http://ozone.unep.org/en/teap-experts-required>).

59. The Panel's terms of reference, approved by the parties in decision XXIV/8, specify in paragraph 2.3 that "the Meeting of the Parties shall appoint the members of TEAP for a period of no more than four years. The Meeting of the Parties may reappoint Members of the Panel upon nomination by the relevant party for additional periods of up to four years each." With regard to the technical options committees, paragraph 2.5 of the terms of reference specifies that "The TOC members are appointed by the TOC co-chairs, in consultation with TEAP, for a period of no more than four years. TOC members may be re-appointed following the procedure for nominations for additional periods of up to four years each." The Panel has clarified that new appointments to technical options committees start from the date of appointment by the committee's co-chairs and end as at 31 December of the final year of appointment.

60. During the thirty-ninth meeting of the Open-ended Working Group, the attention of the parties was drawn to the matrix of required expertise for the Technology and Economic Assessment Panel contained in the Panel's May 2017 progress report and the need to attract new expertise to the technical options committees. The committees that had three co-chairs were encouraged to move to the usual structure of two, which is consistent with the committees' terms of reference, except for the Medical and Chemicals Technical Options Committee which could retain the three co-chairs in the

short term owing to its recent reorganization. Support was expressed for the Panel's efforts to plan for the future needs of the parties. Informal discussions were held with regard to nominating and appointing Panel members, i.e., including technical options committees co-chairs, with a view to making proposals for consideration and possible decision by the Twenty-Ninth Meeting of the Parties.

61. To date, the Secretariat has received the following nominations for membership in the Technology and Economic Assessment Panel and its technical options committees:

(a) Mr. Sergey Kopylov, nominated by the Russian Federation to serve as co-chair of the Halons Technical Options Committee for an additional period of four years;

(b) Ms. Marta Pizano, nominated by Colombia to serve as co-chair of the Methyl Bromide Technical Options Committee for an additional period of four years;

(c) Mr. Mohamed Besri, nominated by Morocco to serve as a Technology and Economic Assessment Panel senior expert for a period of two years.

62. The parties may wish to consult and to forward to the high-level segment for possible adoption a draft decision containing nominations for appointments to the Panel.

11. Consideration of the membership of Montreal Protocol bodies for 2018 (item 4 (k) of the provisional agenda for the preparatory segment)

(a) Members of the Implementation Committee

63. Each year the Meeting of the Parties considers the membership of the Implementation Committee. In accordance with the non-compliance procedure adopted by the parties, the Committee consists of 10 parties, each of which selects an individual to represent it. These parties are elected for two years on the basis of equitable geographical distribution – that is, two are elected to represent each of the traditional United Nations regions of Africa; Asia-Pacific; Eastern Europe; Latin America and the Caribbean; and Western Europe and others. Committee members may serve two consecutive two-year terms.

64. The current members of the Committee are Bangladesh, Canada, Congo, Georgia, Haiti, Jordan Kenya, Paraguay, Romania and the United Kingdom of Great Britain and Northern Ireland. Congo, Georgia, Jordan, Paraguay and the United Kingdom will complete the first year of their two-year terms in 2017; they will therefore continue as members for 2018. Bangladesh, Haiti, Kenya and Romania will conclude the second year of their first two-year terms in 2017 and will therefore have to be replaced or re-elected. Canada is the only country which will complete the second year of its second two-year term and will therefore have to be replaced.

65. In accordance with decision XII/13, the Committee selects its President and Vice-President from among its members. The selection process usually takes place through consultations among the Committee members during a Meeting of the Parties to ensure the continuity of these two offices. The Secretariat has prepared a placeholder decision on this item for the consideration of the parties (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section IV, draft decision XXIX/[BBB]).

66. During the preparatory segment the parties may wish to consult among themselves with the aim of nominating new Committee members for inclusion in a revised draft decision for consideration during the preparatory segment and possible adoption during the high-level segment.

(b) Members of the Executive Committee of the Multilateral Fund

67. The Twenty-Ninth Meeting of the Parties will consider the membership of the Executive Committee of the Multilateral Fund. In accordance with its terms of reference, the Executive Committee consists of seven members from parties operating under paragraph 1 of Article 5 of the Montreal Protocol and seven members from parties not so operating. Each of the two groups of parties elects its Executive Committee members and reports their names to the Secretariat for endorsement by the Meeting of the Parties. In addition, the terms of reference of the Executive Committee call for the election from among the members of the Committee of a chair and vice-chair, who alternate each year between Article 5 parties and non-Article 5 parties. As representatives of Austria and Lebanon are serving as chair and vice-chair, respectively, during 2017, the Article 5 parties will be expected to nominate the Committee's chair for 2018 and the non-Article 5 parties will be expected to nominate the vice-chair.

68. The Twenty-Ninth Meeting of the Parties will need to adopt a decision in which it endorses the selection of the new Committee members and takes note of the selection of the Committee's chair and vice-chair for 2018. The Secretariat has prepared a placeholder decision on this matter for the

consideration of the parties (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section IV, draft decision XXIX/[CCC]).

69. During the preparatory segment the parties may wish to update the draft decision further and forward it for consideration and possible adoption during the high-level segment.

(c) Co-chairs of the Open-ended Working Group

70. Each year the Meeting of the Parties selects one representative from among the Article 5 parties and a second representative from among the non-Article 5 parties to serve as co-chairs of the Open-ended Working Group in the subsequent year. In accordance with decision XXVIII/15, Mr. Cheikh Ndiaye Sylla (Senegal) and Ms. Cynthia Newberg (United States) have served as Co-Chairs of the Open-ended Working Group in 2017. The Twenty-Ninth Meeting of the Parties is expected to adopt a decision naming the co-chairs of the Open-ended Working Group for 2018. The Secretariat has prepared a placeholder decision on the matter for the consideration of the parties (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section IV, draft decision XXIX/[DDD]).

71. During the preparatory segment, the parties may wish to select and nominate two persons to serve as co-chairs of the Open-ended Working Group, whose names can then be included in the draft decision for possible adoption during the high-level segment.

12. Compliance and reporting issues considered by the Implementation Committee (item 4 (I) of the provisional agenda for the preparatory segment)

72. The President of the Implementation Committee will report on party compliance issues considered during the Committee's fifty-eighth and fifty-ninth meetings. During its fifty-eighth meeting, the Implementation Committee agreed to forward to the Twenty-Ninth Meeting of the Parties one draft decision that will be presented in a report by the President of the Committee together with any additional draft decisions forwarded by the Committee at its fifty-ninth meeting to the Twenty-Ninth Meeting of the Parties. The fifty-ninth meeting of the Committee will be held immediately prior to the Twenty-Ninth Meeting of the Parties, on 18 November 2017.

73. Recommendations and draft decisions emanating from the Committee's fifty-eighth and fifty-ninth meetings will also be presented by the President for consideration and possible adoption by the Twenty-Ninth Meeting of the Parties. The preparatory segment may wish to forward the set of recommendations and draft decisions to the high-level segment for possible adoption.

E. Vienna Convention issues (item 5 of the provisional agenda for the preparatory segment)

1. Report of the tenth meeting of the Ozone Research Managers of the Parties to the Vienna Convention (item 5 (a) of the provisional agenda for the preparatory segment)

74. In accordance with decision III/8 of the Conference of the Parties to the Vienna Convention for the Protection of the Ozone Layer, the ozone research managers of the Vienna Convention meet every three years, in the same years as the meetings of the Conference of the Parties.

75. Accordingly, the tenth meeting of the ozone research managers was held from 28 to 30 March 2017 at the headquarters of the World Meteorological Organization (WMO) in Geneva. The meeting, which was organized by the Ozone Secretariat in cooperation with WMO, brought together managers of research and systematic observations related to stratospheric ozone from countries, together with representatives of relevant international programmes and institutions, including the Montreal Protocol's three assessment panels, to review continuing national and international research and monitoring activities to ensure their proper coordination and recommend a way forward.

76. Participants in the meeting reviewed the state of the ozone layer, its interaction with climate change, including trends of HFCs in the atmosphere and the impact of the Kigali Amendment, and considered updated information provided by the international monitoring programmes and institutions on ground-based and satellite research and monitoring. Representatives from all the WMO regions⁷ provided an overview of the situation of ozone monitoring and research in their regions, at the regional and national levels, focusing on the key issues raised in the countries' national reports that had been submitted for consideration at the meeting and highlighting activities related to the implementation of the recommendations of the ozone research managers at their ninth meeting in 2014.

⁷ Region 1: Africa, region 2: Asia, region 3: South America, region 4: North America, Central America and the Caribbean, region 5: South-West Pacific, region 6: Europe, and the Polar Regions.

77. In addition, participants discussed the status of the General Trust Fund for Financing Activities on Research and Systematic Observations Relevant to the Vienna Convention and considered the work of the Advisory Committee for the Trust Fund since its establishment in 2015 pursuant to decision X/3. In line with its mandate recorded in that decision, the chair of the committee presented proposed actions for a long-term strategy and a short-term plan for the trust fund. The long-term strategy included a number of elements such as the development of a clear portfolio of activities and their expected outcome, a fundraising campaign through a multi-pronged approach, criteria for prioritizing the types of activities best suited to the trust fund and metrics to measure the retention of capacity and development of data and science. The short-term action plan included the preparation of a “needs and gaps document”, the identification of potential sources of funding, the establishment of a subgroup to document gains made and provision of feedback on project proposals received in 2016. The Advisory Committee has since continued its work on this issue. An updated version of its proposed actions is included in document UNEP/OzL.Conv.11/6.

78. The national reports submitted by parties and the report of the meeting are available on the meeting portal for the tenth meeting of the Ozone Research Managers (<http://conf.montreal-protocol.org/meeting/orm/10orm/presession/SitePages/Home.aspx>). The full report of the meeting is also available as a background document for the present meeting at <http://conf.montreal-protocol.org/meeting/mop/cop11-mop29/presession/SitePages/Home.aspx>.

79. In-depth discussions were held on five topics: overarching goals; research needs; systematic observations; data archiving and stewardship; and capacity-building. For each topic, resource leaders and rapporteurs were selected to introduce and summarize the issues and to formulate recommendations. The resultant recommendations are set out in document UNEP/OzL.Conv.11/5 and a brief summary is provided below:

(a) Overarching goals

80. The Ozone Research Managers underscored the critical importance of the ozone layer in protecting all life on Earth and the crucial need for the scientific community to remain vigilant by continuing to monitor it closely and by increasing the understanding of existing and new threats. The overarching goals for ozone protection should therefore aim to improve the understanding and accuracy of future projections of global ozone amounts, maintain and enhance existing observation capabilities, continue and enhance the General Trust Fund for Financing Activities on Research and Systematic Observations Relevant to the Vienna Convention; and make a commitment to build capacity to meet the goals.

(b) Research needs

81. While endorsing the general recommendations emanating from their ninth meeting, the Ozone Research Managers identified a number of research needs in three broad areas: chemistry and climate interactions and monitoring; processes influencing stratospheric evolution and links to climate; and ultraviolet (UV) changes and other impacts of ozone-depleting substances.

(c) Systematic observations

82. The Ozone Research Managers highlighted the need for continuing observations of key trace gases, UV radiation, and parameters characterizing the role of chemical, radiative and dynamic processes, and reiterated the importance of such information in the verification of the expected ozone recovery from the impact of ozone-depleting substances and in the understanding of interactions with the changing climate.

(d) Data archiving and stewardship

83. Endorsing past recommendations on this issue, the Ozone Research Managers highlighted a number of current needs, including, for example, the development of robust automated data submission with centralized and standard processing and quality assurance schemes; allocation of resources to digitize available historical data; establishment of central satellite data archives; enhanced linkages among data centres; actions by UV monitoring stations towards increasing the submission rate of UV index data to the World Ozone and Ultraviolet Radiation Data Centre.

(e) Capacity-building

84. After extensive discussions on issues related to capacity-building, the Ozone Research Managers finalized a number of recommendations including, for example, identifying the needs of individual countries and improving communication within regions to support those needs; providing training opportunities for local station operators in developing countries on basic measurement techniques, data handling and analysis methods, supplemented with online material, videos, software

tools and real-time communication with trainers; providing fellowships to support scientific development; continuing and expanding regular calibrations and intercomparison campaigns; increasing outreach activities through alternative funding streams (e.g., manufacturers, the private sector); bridging the gap between relevant communities such as national ozone officers and national meteorological agencies (to be facilitated by WMO and the Ozone Secretariat); assisting developing countries and countries with economies in transition to participate actively in ozone research and assessment activities under the Montreal Protocol; establishing a working group under the guidance of the Advisory Committee for the Trust Fund for continued and enhanced scientific capacity among all parties.

85. In accordance with decision I/6, the tenth meeting of the Ozone Research Managers was convened in conjunction with a meeting of the Bureau of the Conference of the Parties to the Vienna Convention. Three Bureau members also participated in the tenth meeting of the Ozone Research Managers. A key conclusion emanating from the meeting of the Bureau was its resolve to propose a way forward on the recommendations of the Ozone Research Managers, including on the Vienna Convention General Trust Fund for Research and Systematic Observations, for consideration by the Conference of the Parties. The report of the Bureau meeting is available on the meeting portal of the Ozone Secretariat website (<http://conf.montreal-protocol.org/meeting/bureau/10cop-bureau/SitePages/Home.aspx>).

86. During the preparatory segment the parties may wish to review the work and recommendations of the Ozone Research Managers at their tenth meeting and recommend further action as appropriate.

2. Status of the General Trust Fund for Financing Activities on Research and Systematic Observations Relevant to the Vienna Convention (item 5 (b) of the provisional agenda for the preparatory segment)

87. By decision VI/2, the parties to the Vienna Convention established a special trust fund for receiving voluntary contributions for the purpose of financing certain activities on research and systematic observations relevant to the Vienna Convention in developing countries and countries with economies in transition. In accordance with decisions VIII/3 and IX/2, the Secretariat and WMO have continued to cooperate in implementing the activities of the trust fund pursuant to the terms of the memorandum of understanding between the two bodies on the operation of the Fund. The status of the trust fund and its activities is set out in document UNEP/OzL.Conv.11/6.

88. As explained in the note by the secretariat on the status of the trust fund, the trust fund will close at the end of 2019 unless the parties request UNEP, once again, to extend its operation. The secretariat has prepared a placeholder decision for extending the trust fund to 31 December 2026 (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section III, draft decision XI/[BB]). The date of 31 December 2026 suggested by the Secretariat in the draft decision takes into account the timings of the meetings of the Conference of the Parties and sessions of the United Nations Environment Assembly that will approve the extension, although it is the parties who will decide on an appropriate date.

89. At its eleventh meeting, the Conference of the Parties to the Vienna Convention may wish to consider the status of the trust fund and relevant activities, together with the recommendations of the Ozone Research Managers at their tenth meeting and the work of the Advisory Committee for the Trust Fund established pursuant to decision X/3 of the Conference of the Parties, and to take relevant decisions, including on whether or not to extend the trust fund beyond 2019 up to an appropriate date.

F. Other matters (item 6 of the provisional agenda for the preparatory segment)

90. Under agenda item 6, the parties will consider other matters raised at the time of the adoption of the agenda.

III. High-level segment (23 and 24 November 2017)

A. Opening of the high-level segment (item 1 of the provisional agenda for the high-level segment)

91. The high-level segment of the joint meeting is scheduled to be opened at 10 a.m. on Thursday, 23 November 2017.

Statements by the President of the tenth meeting of the Conference of the Parties to the Vienna Convention, the President of the Twenty-Eighth Meeting of the Parties to the Montreal Protocol, representative(s) of the United Nations Environment Programme and the representative of the Government of Canada (items 1 (a), (b), (c) and (d) of the provisional agenda for the high-level segment)

92. Opening statements will be made by the presidents of the tenth meeting of the Conference of the Parties to the Vienna Convention and the Twenty-Eighth Meeting of the Parties to the Montreal Protocol. Representative(s) of the United Nations Environment Programme and a representative of the Government of Canada and will also make statements.

B. Organizational matters (item 2 of the provisional agenda for the high-level segment)

1. Election of officers of the eleventh meeting of the Conference of the Parties to the Vienna Convention (item 2 (a) of the provisional agenda for the high-level segment)

93. In accordance with rule 21 of the rules of procedure, the Conference of the Parties must elect a president, three vice-presidents and a rapporteur. A representative of a party from the group of Latin American and Caribbean States (Guatemala) presided over the tenth meeting of the Conference of the Parties, while a representative of a party from the group of Eastern European States (Kazakhstan) served as rapporteur. On the basis of regional rotation agreed by the parties, the parties may wish to elect a party from the group of Western European and other States to preside over the eleventh meeting of the Conference of the Parties and to elect a party from the group of Latin American and Caribbean States as rapporteur. The parties may also wish to elect three vice-presidents, one each from the groups of African States, Asia-Pacific States and Eastern European States.

2. Election of officers of the Twenty-Ninth Meeting of the Parties to the Montreal Protocol (item 2 (b) of the provisional agenda for the high-level segment)

94. In accordance with rule 21 of the rules of procedure, the Twenty-Ninth Meeting of the Parties must elect a president, three vice-presidents and a rapporteur. A representative of a party from the group of African States (Rwanda) presided over the Twenty-Eighth Meeting of the Parties, while a representative of a party from the group of Western European and other States (Denmark) served as rapporteur. On the basis of regional rotation agreed by the parties, the parties may wish to elect a party from the group of Asia-Pacific States to preside over the Twenty-Ninth Meeting of the Parties and to elect a party from the group of African States as rapporteur. The parties may also wish to elect three additional vice-presidents, one each from the groups of Eastern European States, Latin American and Caribbean States and Western European and other States.

3. Adoption of the agenda of the high-level segment of the eleventh meeting of the Conference of the Parties to the Vienna Convention and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol (item 2 (c) of the provisional agenda for the high-level segment)

95. The provisional agenda for the high-level segment is set forth in section II of document UNEP/OzL.Conv.11/1-UNEP/OzL.Pro.29/1 and will be before the parties for adoption. The parties may wish to adopt that agenda, including any items that they may agree to include under item 8, "Other matters".

4. Organization of work (item 2 (d) of the provisional agenda for the high-level segment)

96. The presidents of the eleventh meeting of the Conference of the Parties and the Twenty-Ninth Meeting of the Parties are expected to outline a plan of work for discussing the items on the agenda.

5. Credentials of representatives (item 2 (e) of the provisional agenda for the high-level segment)

97. In accordance with rule 18 of the rules of procedure for meetings of the parties to the Montreal Protocol, the credentials of representatives of parties attending a meeting of the parties must be submitted to the Executive Secretary of the meeting, if possible not later than 24 hours after the opening of the meeting. Representatives are urged to come to the meeting with duly signed credentials and to submit them to the Secretariat as soon as possible after the start of the meeting. In accordance with rule 19 of the rules of procedure, the elected officers of the meeting will examine the credentials and submit their report thereon to the parties.

C. Presentations by the assessment panels on the status of their work, including latest developments (item 3 of the provisional agenda for the high-level segment)

98. Under this agenda item, the three assessment panels will present the progress in their assessments including latest developments and any emerging issues. The parties may wish to take note of their reports and take action either at the current meeting or later as they deem appropriate.

D. Presentation by the Chair of the Executive Committee of the Multilateral Fund on the work of the Executive Committee (item 4 of the provisional agenda for the high-level segment)

99. Under this agenda item, the Chair of the Executive Committee of the Multilateral Fund will present a report by the Executive Committee to the parties, including on progress in addressing the issues related to guidelines for financing the phase-down of HFC consumption and production as requested in decision XXVIII/2 and on the work undertaken by the Multilateral Fund secretariat and the Fund's implementing agencies since the Twenty-Eighth Meeting of the Parties. The report, which will be issued as document UNEP/OzL.Pro.29/6, is expected to be available on the first day of the meeting, since it will contain the outcome of the eightieth meeting of the Executive Committee, which will be held from 13 to 17 November 2017, in the week prior to the Twenty-Ninth Meeting of the Parties.

E. Statements by heads of delegations and discussion on key topics (item 5 of the provisional agenda for the high-level segment)

100. Under this agenda item, heads of delegations will be invited to make statements. From the first day of the preparatory segment of the meeting, the Secretariat will begin accepting requests to speak and compiling a list of speakers based on those requests. In the interests of fairness to all delegations and to ensure that all who wish to speak have an opportunity to do so, it will be important for heads of delegations to limit their statements to four or five minutes. Statements by heads of delegations of parties will be delivered in the order in which their requests to speak are received, subject to the understanding that ministers will be accorded priority.

(a) Identifying future opportunities and priorities (high-level round table) (item 5 (a) of the provisional agenda for the high-level segment)

101. In commemoration of the thirtieth anniversary of the Montreal Protocol, a high-level round-table discussion has been planned and is scheduled to last for 90 minutes. The discussion will reflect on the many achievements of the Protocol over the past three decades, including the recent adoption of the Kigali Amendment to the Protocol, and examine the opportunities and issues that lie ahead. The round-table discussion will take place under the theme "Montreal Protocol at 30: identifying future opportunities and priorities," and will focus on the opportunities and the new issues that the parties to the Montreal Protocol identify as being important to pursue after 2017 to ensure the Protocol's continued success in the coming years. Some ministers and high-level officials will participate in the discussion as panellists. At the end of the discussion, the moderator will provide a summary of the main points discussed. Further details will be provided in an addendum to the present document.

(b) Science of ozone layer depletion and recovery: reflections on the past, present and future (science event) (item 5 (b) of the provisional agenda for the high-level segment)

102. A science event, organized by the Government of Canada and involving scientists as panellists, is planned to raise awareness on the science of the ozone layer. The panellists will discuss topics including changing atmospheric composition and how it affects the ozone layer; ozone depletion and climate change; and observations and monitoring needs for ozone layer protection and recovery. A moderator will facilitate the discussion. The event is scheduled to last for 90 minutes. Any further details will be provided in an addendum to the present note.

F. Report of the co-chairs of the preparatory segment and consideration of the decisions recommended for adoption by the Conference of the Parties to the Vienna Convention at its eleventh meeting and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol (item 6 of the provisional agenda for the high-level segment)

103. Under this agenda item, the co-chairs of the preparatory segment will be invited to report to the parties on the progress made in reaching consensus on the substantive issues on the agenda.

G. Dates and venues for the twelfth meeting of the Conference of the Parties to the Vienna Convention and the Thirtieth Meeting of the Parties to the Montreal Protocol (item 7 of the provisional agenda for the high-level segment)

104. The parties will be provided with information regarding the potential venue for the Thirtieth Meeting of the Parties to the Montreal Protocol and may then wish to take a decision on this matter. At the time of preparation of the present note, no offer had been made by any Government to host the meeting of the parties in 2018. If no such offers are received, the meeting will be convened at the headquarters of the Secretariat at the United Nations Office at Nairobi, where a tentative booking of the conference facilities has been made from 5 to 9 November 2018. The twelfth meeting of the Conference of the Parties to the Vienna Convention is scheduled to be held in 2020 and, as customary, will be held jointly with the Meeting of the Parties to the Montreal Protocol which will be the Thirty-Second Meeting. The Secretariat has prepared placeholder draft decisions on the matter (UNEP/OzL.Conv.11/3-UNEP/OzL.Pro.29/3, section IV, draft decisions XXIX/[EEE] and XI/[FFF], respectively).

105. In the addendum to the present note, the Secretariat will provide further information regarding possible venues and dates for the meetings of the Open-ended Working Group in 2018 and 2019, as well as possible dates and venues for the Meeting of the Parties in 2019.

H. Other matters (item 8 of the provisional agenda for the high-level segment)

106. Any additional substantive issues agreed for inclusion on the agenda under item 2 (c), “Adoption of the agenda”, will be taken up under this item.

I. Adoption of decisions by the Conference of the Parties to the Vienna Convention at its eleventh meeting (item 9 of the provisional agenda for the high-level segment)

107. Under this agenda item, the parties will adopt the decisions to be taken by the Conference of the Parties at its eleventh meeting.

J. Adoption of decisions by the Twenty-Ninth Meeting of the Parties to the Montreal Protocol (item 10 of the provisional agenda for the high-level segment)

108. Under this agenda item, the Twenty-Ninth Meeting of the Parties will adopt decisions on the matters on the agenda.

K. Adoption of the report of the eleventh meeting of the Conference of the Parties to the Vienna Convention and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol (item 11 of the provisional agenda for the high-level segment)

109. Under agenda item 11, the parties will adopt the report of the eleventh meeting of the Conference of the Parties to the Vienna Convention and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol.

L. Closure of the meeting (item 12 of the provisional agenda for the high-level segment)

110. The joint eleventh meeting of the Conference of the Parties to the Vienna Convention and the Twenty-Ninth Meeting of the Parties to the Montreal Protocol is expected to close by 6 p.m. on Friday, 24 November 2017.

Annex

List of issues arising from the first meeting of the replenishment contact group for possible consideration by the Technology and Economic Assessment Panel in a supplementary report on replenishment 2018–2020

From general questions and responses:

1. Paragraph 3 of the terms of reference as expressed in decision XXVIII/5:
 “That the Technology and Economic Assessment Panel should provide indicative figures of the resources within the estimated funding required for phasing out HCFCs that could be associated with enabling Article 5 parties to encourage the use of low-GWP or zero-GWP alternatives and indicative figures for any additional resources that would be needed to further encourage the use of low-GWP or zero-GWP alternatives”.
2. Cost effectiveness figures in metric tonnes, ODP-tonnes and CO₂ equivalent.
3. Clearer distinction between costs associated with HCFC-related and HFC-related activities.
4. Scenario comparing previously approved projects with business plan estimates on an annual basis in relation to determining uncertainty for planned activities.
5. Accounting for recent decisions of the Executive Committee.

Funding components

HPMP activities (Technology and Economic Assessment Panel report, chapter 3)

6. Scenarios for consideration:
 - (a) HPMP stage III implementation activities, in particular according to existing commitments in the servicing sector;
 - (b) Stage III activities are deferred to the next triennium.
7. Technology and Economic Assessment Panel to consider scenario where the non-low-volume-consuming and low-volume-consuming (LVC) planned activities which are not necessary to meet the 35 per cent phase-out target are deferred to the next triennium.

HCFC production phase out (chapter 4)

8. Consider China HPPMP stage II and related Executive Committee assumptions in upcoming meeting.
9. Consider different scenarios involving two tranches in the 2018–2020 triennium.

Non-investment and supporting activities (chapter 5)

10. Further consideration of how to account for parties with accelerated phase-out in HPMP stage II implementation.
11. Further consideration on taking into account HPMP stage III (for parties wishing to achieve the 67.5 per cent and further reductions steps earlier).
12. Consideration of scenario where stage III activities are deferred to the next triennium.
13. Consideration of a scenario where there is no annual increase to CAP and a scenario where there is an increase of more than 3 per cent to CAP.
14. Consideration of scenario where there are no HCFC demonstration projects.
15. Consideration of scenarios where HPMP stage III preparation activities in particular are undertaken according to existing commitments in the servicing sector.

HFC phasedown enabling activities (chapter 6)

16. Further disaggregation of cost of enabling activities with respect to the different elements addressed.

HFC-23 mitigation (chapter 7)

17. Scenario involving closure of HCFC-22 production plants to deal with HFC-23, with or without existing incineration facilities, taking into account swing plants as one of the possible alternatives to control HFC-23 emissions.
