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**United Nations
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**Thirty-First Meeting of the Parties to
the Montreal Protocol on Substances
that Deplete the Ozone Layer**
Rome, 4–8 November 2019

Issues for discussion by and information for the attention of the Thirty-First Meeting of the Parties to the Montreal Protocol

Note by the Secretariat

I. Introduction

1. The present note sets out an overview of the issues on the provisional agenda¹ for the Thirty-First 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 an overview of the high-level segment. For each agenda item, a brief summary of the background is given, in particular on the relevant discussion that took place during the forty-first meeting of the Open-ended Working Group of the Parties to the Montreal Protocol, held in Bangkok from 1 to 5 July 2019.

2. Further information on some agenda items will be provided in an addendum to the present note when relevant additional information becomes available, mainly comprising volumes of the Technology and Economic Assessment Panel September 2019 report, including the final report of the Panel's decision XXX/3 task force on unexpected emissions of trichlorofluoromethane (CFC-11) (volume 1); the final report on the evaluation of critical-use nominations for methyl bromide (volume 2); and the updated task force report on access of parties operating under paragraph 1 of Article 5 of the Montreal Protocol (Article 5 parties) to energy efficient technologies (volume 3). The addendum will provide summaries of those reports.

3. Issues that are not directly related to the implementation of decisions and related follow-up, but which may be of interest to the parties, are addressed in an information note on issues that the Secretariat would like to bring to the attention of the parties (UNEP/OzL.Pro.31/INF/4).

II. Overview of items on the agenda for the preparatory segment (4–6 November 2019)

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

4. The preparatory segment of the meeting is scheduled to be opened at 10 a.m. on Monday, 4 November 2019, at the headquarters of the Food and Agriculture Organization of the United Nations, Building A, Viale delle Terme di Caracalla, 00153 Rome.

¹ UNEP/OzL.Pro.31/1.

5. The preparatory segment will be chaired jointly by Ms. Laura-Juliana Arciniegas (Colombia) and Mr. Alain Wilmart (Belgium), the co-chairs of the Open-ended Working Group.
6. As the meetings will be virtually paperless, participants are urged to bring their own laptops and handheld devices for accessing meeting documents and information.
7. Welcoming statements will be made by representatives of the Government of Italy and the United Nations Environment Programme (UNEP) (items 1 (a) and (b) of the provisional agenda for the preparatory segment).

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)

8. The provisional agenda for the preparatory segment is set out in section I of document UNEP/OzL.Pro.31/1 and will be before the parties for adoption. The parties may wish to adopt the agenda, including any items that they may agree to raise under item 19 on “Other matters”.

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

9. Under item 2 (b), 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.

C. Administrative matters (item 3 of the provisional agenda for the preparatory segment)

1. Budget of the Trust Fund for the Montreal Protocol and financial reports (item 3 (a) of the provisional agenda for the preparatory segment)

10. The budget of the Montreal Protocol is considered annually by the Meeting of the Parties. In accordance with decision XXX/20 of the Thirtieth Meeting of the Parties, budgets for 2020 and 2021 are presented in document UNEP/OzL.Pro.31/4. The budgets are presented according to two scenarios: (a) the proposed budget, which reflect the needs foreseen; and (b) the zero nominal growth budget pegged to the approved budget for 2019.

11. The proposed budget for 2020, including the additional activities, is \$5,668,314, \$274,466 less than the approved 2019 budget of \$5,942,780 with the additional activities. The proposed budget for 2021 is \$5,412,514, \$255,800 less than the proposed budget for 2020. Pursuant to paragraph 9 of decision XXX/20, the Secretariat has produced activity fact sheets, following a format similar to that used by the secretariat of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, on its areas of work for 2020 and the related activities to be carried out. Those fact sheets are presented in document UNEP/OzL.Pro.31/INF/1.

12. The Secretariat has chosen not to follow the usual practice of also presenting a revised budget for the current year for the consideration of and approval by the parties. This choice was based on three considerations: (a) a revised budget was not necessary for 2019 as the 2019 activities will be implemented as planned; (b) budget movement between the different cost categories will not exceed 10 per cent, nor will the total expenditure exceed the approved budget; and (c) this is in alignment with the practice followed within the United Nations Environment Programme (UNEP). The Secretariat proposes that, in the future, a revised budget be presented for approval only when budget transfers among the different cost categories exceed the maximum allowable transfer amount of 10 per cent, in accordance with UNEP standard practice.² The budget performance report for 2019 as at 30 September 2019 is provided as an information document (UNEP/OzL.Pro.31/INF/2).

13. The financial reports for the trust funds for the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol are considered by the parties annually. The certified financial statements for 2018 for the Vienna Convention and the Montreal Protocol trust funds, the certified financial statements for 2018 for the earmarked contributions that support the work of the

² Decision 4/1 (para. 7) adopted by the fourth session of the United Nations Environment Assembly of the United Nations Environment Programme.

Ozone Secretariat and an overview of the budget performance report for 2018 for the two trust funds are set out in document UNEP/OzL.Pro.31/5.

14. The main information on the Vienna Convention and the Montreal Protocol trust funds includes the following:

(a) The budget utilization rates were 90 per cent and 91 per cent, respectively, in 2018.

(b) The reserves and fund balance at the end of 2018 totalled \$1,922,534 for the Vienna Convention trust fund and \$8,927,943 for the Montreal Protocol trust fund, and the cash balances for the funds were \$1,511,935 and \$6,970,025, respectively.

(c) The reserves and fund balance at the end of 2020 is projected to be \$1,660,000 for the Vienna Convention trust fund and \$8,361,000 for the Montreal Protocol trust fund, and the forecast cash balances are \$1,190,000 and \$6,117,000, respectively.

15. Under item 3 (a) of the provisional agenda for the preparatory segment, the parties are expected to establish a budget committee to deliberate on and recommend a draft decision on the budget for adoption, as appropriate, during the high-level segment. A placeholder decision is set out in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[BB].

2. Consideration of the membership of Montreal Protocol bodies for 2020 (item 3 (b) of the provisional agenda for the preparatory segment)

(a) Members of the Implementation Committee (item 3 (b) (i) of the provisional agenda for the preparatory segment)

16. 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. Those parties are elected for two years on the basis of equitable geographical distribution – that is, two are elected to represent each of the regional groupings of African States, Asia-Pacific States, Eastern European States, Latin American and Caribbean States and Western European and other States. Committee members may serve two consecutive two-year terms.

17. From the current members of the Committee, the European Union, Guinea Bissau, Paraguay, Saudi Arabia and Turkey will complete the first year of their two-year terms in 2019; they will therefore continue as members for 2020. Australia, Chile, Maldives, Poland and South Africa will conclude the second year of their first two-year terms in 2019 and will therefore have to be replaced or re-elected.

18. In accordance with decision XII/13, the Committee selects its President and Vice-President from among its members, through consultations among the Committee members during a Meeting of the Parties to ensure the continuity of the two offices. The Secretariat has included a placeholder draft decision on the matter in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[CC].

19. During the preparatory segment, the parties may wish to consult among themselves with the aim of nominating new Committee members. The Secretariat will include nominated parties in the draft decision for consideration and possible adoption, with any amendments that the parties may deem appropriate, during the high-level segment.

3. Members of the Executive Committee of the Multilateral Fund (item 3 (b) (ii) of the provisional agenda for the preparatory segment)

20. The Thirty-First Meeting of the Parties will consider the membership of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol. In accordance with its terms of reference, the Executive Committee consists of seven members from Article 5 parties and seven members from non-Article 5 parties. For 2020, the seven members from Article 5 parties are expected to be selected from the regional groups as follows: two members from African States, two members from Asia-Pacific States, two members from Latin American and Caribbean States and one member to fill the seat that rotates among the regions (decision XVI/38), which for 2020 will be from the Asia-Pacific States.

21. 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 a Vice-Chair, who alternate each year between Article 5 parties and non-Article 5 parties. As representatives of Canada and Rwanda have served as Chair and Vice-Chair,

respectively, during 2019, the Article 5 parties will be expected to nominate the Chair for 2020 and the non-Article 5 parties will be expected to nominate the Vice-Chair.

22. The Thirty-First Meeting of the Parties is expected to adopt a decision endorsing the selection of the new Committee members and taking note of the selection of the Committee's Chair and Vice-Chair for 2020. The Secretariat has prepared a placeholder draft decision on the matter in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[DD].

23. During the preparatory segment, the parties may wish to consult among themselves and consider the new composition of the Committee. The Secretariat will include nominated parties in the draft decision for consideration and possible adoption, with any amendments that the parties may deem appropriate, during the high-level segment.

4. Co-chairs of the Open-ended Working Group (item 3 (b) (iii) of the provisional agenda for the preparatory segment)

24. Each year, the Meeting of the Parties selects one representative from among Article 5 parties and one representative from among non-Article 5 parties to serve as co-chairs of the Open-ended Working Group in the subsequent year. In accordance with decision XXX/19, Mr. Alain Wilmart (Belgium) and Ms. Laura-Juliana Arciniegas (Colombia) have served as the Co-Chairs of the Open-ended Working Group in 2019. The Thirty-First Meeting of the Parties is expected to adopt a decision naming the co-chairs of the Open-ended Working Group for 2020. The Secretariat has prepared a placeholder draft decision on the matter in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[EE].

25. The Thirty-First Meeting of the Parties may wish to consult as necessary and nominate two individuals to serve as the co-chairs of the Open-ended Working Group in 2020, whose names can then be included in the draft decision for consideration and possible adoption during the high-level segment.

D. Terms of reference for the study on the 2021–2023 replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol (item 4 of the provisional agenda for the preparatory segment)

26. At the forty-first meeting of the Open-ended Working Group, parties began discussing the terms of reference for a study to estimate the funds that would be required to enable Article 5 parties to achieve compliance with their obligations under the Protocol during the next replenishment period of 2021–2023. The parties had before them the terms of reference for the previous study, set out in decision XXVIII/5, to use as a basis for developing the terms of reference for the upcoming study. During the discussion, several representatives mentioned topics that they wished to see included in the terms of reference. The discussion is captured in the report of the forty-first meeting of the Open-ended Working Group (UNEP/OzL.Pro.WG.1/41/5, paras. 47 and 48).

27. The Working Group established a contact group, co-chaired by Mr. Agustín Sánchez (Mexico) and Mr. Ralph Brieskorn (Netherlands). The group reviewed nearly all of the text of the previous decision on the terms of reference and managed to reach agreement on certain aspects and eliminate some repetitive text.

28. The Working Group agreed to forward the resulting text, with some parts still in square brackets, as a draft decision for further consideration by the Thirty-First Meeting of the Parties. The draft decision is contained in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[A].

29. The parties may wish to continue the discussions on the draft decision.

E. Potential areas of focus for the 2022 quadrennial assessment reports of the Scientific Assessment Panel, the Environmental Effects Assessment Panel and the Technology and Economic Assessment Panel (item 5 of the provisional agenda for the preparatory segment)

30. Pursuant to Article 6 of the Montreal Protocol, which calls for a review, at least once every four years, of the control measures of the Protocol on the basis of available scientific, environmental, technical and economic information, and in accordance with decision XXVII/6, on the potential areas of focus for the 2018 quadrennial reports, the Scientific Assessment Panel, the Environmental Effects Assessment Panel and the Technology and Economic Assessment Panel and its five technical options

committees³ completed their quadrennial assessment reports⁴ and presented them to the parties at the forty-first meeting of the Open-ended Working Group.

31. The panels have since finalized a synthesis of their 2018 quadrennial assessments. The synthesis report is set out in document UNEP/OzL.Pro.31/8 and will be presented by the panels during the high-level segment. Parties may also find it useful for the discussion of the potential areas for the 2022 quadrennial assessment.

32. During the forty-first meeting of the Open-ended Working Group, the parties began discussing the terms of reference, listing the potential areas of focus for the next quadrennial assessment. Several representatives highlighted the urgent need to turn attention to short-lived substances and banks of ozone-depleting substances, especially: (a) the need for effective management and destruction of banks; (b) the lack of current information on predicting the effects of increasing short-lived substances such as dichloromethane in the atmosphere and how to mitigate them; and (c) the continued monitoring of short-lived substances and their uses, quantities and emissions and possible alternatives to such substances.

33. It was also mentioned that the list of potential areas of focus for the 2022 report of the Scientific Assessment Panel provided by the panel's co-chair was a good starting point for discussion of the work to be undertaken and that continued review of CFC emissions should be a component of that work. The Working Group also agreed to consider including the issue of the relationship between stratospheric ozone and solar radiation management in the terms of reference for the quadrennial report of the Scientific Assessment Panel.

34. Following the discussion, the European Union introduced a conference room paper setting out a proposed draft decision on potential areas of focus for the 2022 quadrennial reports of the Scientific Assessment Panel, the Environmental Effects Assessment Panel and the Technology and Economic Assessment Panel, as a basis for further discussion at the Thirty-First Meeting of the Parties. Two representatives commented that the draft decision had not been subject to the usual discussion processes of the Open-ended Working Group, and that it was important to ensure that a full exchange of ideas on the issues raised took place during the Thirty-First Meeting of the Parties.

35. The Working Group agreed to forward the draft decision, as set out in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[C], to the Thirty-First Meeting of the Parties for further consideration.

36. The parties may wish to discuss the matter further.

F. Unexpected emissions of trichlorofluoromethane (CFC-11) (item 6 of the provisional agenda for the preparatory segment)

37. At the forty-first meeting of the Open-ended Working Group, the Scientific Assessment Panel and the Technology and Economic Assessment Panel presented the reports requested by the parties in decision XXX/3. The Scientific Assessment Panel presented a preliminary summary report on the unexpected increase of CFC-11 emissions, including new information from a scientific paper published in May 2019 by Rigby and others⁵ and information on atmospheric monitoring and modelling and underlying assumptions. The presentation also included a summary of the proceedings of an international symposium on the unexpected increase in emissions of CFC-11, held in Vienna in March 2019. The report of the symposium has since been published in the July 2019 newsletter of the "Stratosphere-troposphere Processes and Their Role in Climate" project and is available on the meeting portal of the Thirty-First Meeting of the Parties as background document.⁶ The Technology and Economic Assessment Panel presented its preliminary report on potential sources of emissions of

³ Flexible and Rigid Foams Technical Options Committee (FTOC); Halons Technical Options Committee (HTOC); Medical and Chemicals Technical Options Committee (MCTOC); Methyl Bromide Technical Options Committee (MBTOC); and Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee (RTOC).

⁴ The full reports are available at the Ozone Secretariat website: Scientific Assessment Panel: <https://ozone.unep.org/science/assessment/sap>; Environmental Effects Assessment Panel: <https://ozone.unep.org/science/assessment/eeap>; and Technology and Economic Assessment Panel and its technical options committees: <https://ozone.unep.org/science/assessment/teap>. The highlights and summaries of the reports are set out in the note by the Secretariat and its addendum (UNEP/OzL.Pro.WG.1/41/2 and Add.1), at <http://conf.montreal-protocol.org/meeting/oewg/oewg-41/presession/SitePages/Home.aspx>.

⁵ Rigby and others. "Increase in CFC-11 emissions from eastern China based on atmospheric observations". *Nature*, vol. 569, pp. 546–550 (22 May 2019). <https://www.nature.com/articles/s41586-019-1193-4>.

⁶ conf.montreal-protocol.org/meeting/mop/mop-31.

CFC-11 and related controlled substances from potential production and uses, as well as from banks, that may have resulted in emissions of CFC-11 in unexpected quantities in the relevant regions.

38. The Open-ended Working Group also had before it an overview document, prepared by the Ozone Secretariat in accordance with decision XXX/3, outlining the procedures under the Protocol and the Multilateral Fund by which the parties reviewed, and ensured continuing compliance with, Protocol obligations and the terms of agreements under the Fund. This document also included information provided by the Multilateral Fund secretariat in response to decision XXX/3 and in accordance with decision 82/86 of the Executive Committee.⁷ Further, an addendum⁸ to the overview document was issued to reflect the request of the Executive Committee to the Fund secretariat to forward to the Ozone Secretariat, as a separate submission, document UNEP/OzL.Pro/ExCom/83/38 on current monitoring, reporting, verification and enforceable licensing and quota system. That document was annexed to the original document prepared by the Fund secretariat in a background document for the forty-first meeting.

39. The Open-ended Working Group had a long discussion on the matter, including questions and answers on the reports of the two assessment panels, statements and comments, which is captured in the report of the forty-first meeting of the Open-ended Working Group (UNEP/OzL.Pro.WG.1/41/5, paras. 17–41).

40. Following the discussion, the Working Group established a contact group, co-chaired by Ms. Annie Gabriel (Australia) and Mr. Osvaldo Álvarez-Pérez (Chile), to further consider the following: (a) technical and scientific issues related to the unexpected emissions of CFC-11, with a view to identifying the information that needed to be enhanced; (b) institutional matters and processes under the Vienna Convention and the Montreal Protocol, including monitoring, reporting and verification, compliance, licensing and illegal trade; and (c) any other matters the group deemed necessary. The report of the work of the contact group was presented by the co-chairs of the group to the Working Group in plenary and was included as annex II to the report of the forty-first meeting, to be used as a basis for further deliberations on the matter. The contact group urged the parties to consider the issues raised intersessionally and to come to the Thirty-First Meeting of the Parties prepared to decide on a way forward.

41. The Working Group agreed to defer further discussion of the matter to the Thirty-First Meeting of the Parties.

42. Pursuant to decision XXX/3, the two panels are working on updating their reports⁹ for consideration by the Thirty-First Meeting of the Parties. The addendum to the present note will provide summaries of the updated reports. Also pursuant to decision XXX/3, the Ozone Secretariat is updating its overview document and will present any additional information in document UNEP/OzL.Pro/31/6.

43. The parties may wish to continue the discussion on the matter, taking into consideration the report of the contact group, which has been reproduced in annex I to the present note, the updated reports of the panels and the updated overview document of the Ozone Secretariat.

G. Ongoing reported emissions of carbon tetrachloride (item 7 of the provisional agenda for the preparatory segment)

44. At the forty-first meeting of the Open-ended Working Group, the issue of carbon tetrachloride emissions was discussed. The discussion was triggered by the findings on carbon tetrachloride emissions and their sources in the 2018 quadrennial assessment presented to the Thirtieth Meeting of the Parties by the Scientific Assessment Panel, including new findings that contributed to reducing the discrepancy between the top-down and bottom-up estimations of emission levels and to better understanding of the potential sources of carbon tetrachloride emission.

45. During the first round of discussion, a few representatives expressed the need for action to address the issue of carbon tetrachloride emissions, as it had linkages with the discussion of CFC-11 and feedstock uses. Some of the possible actions mentioned were extending atmospheric monitoring to those regions for which information was scant, mitigation measures for emission sources and the need

⁷ UNEP/OzL.Pro/OEWG/41/3.

⁸ UNEP/OzL.Pro/OEWG/41/3/Add.1.

⁹ The following parties have so far submitted additional information on CFC-11 in response to specific questions from the Technology and Economic Assessment Panel's task force on CFC-11: China, the European Union, Japan, Mexico, the Russian Federation and the United States of America. The additional information is being taken into consideration by the Panel in finalizing its report.

for relevant guidance from the assessment panels to orient research on the matter. Some representatives also expressed concerns that emissions were associated with feedstock uses, and that uncontrolled and unregulated industrial sources emitting carbon tetrachloride as a by-product or as fugitive emissions had been identified as the probable main source of the increased emissions.

46. Following the discussion, the representative of Switzerland introduced a conference room paper containing a proposed draft decision with a comprehensive list of possible actions to guide the way forward on the matter.

47. The Working Group established a contact group co-chaired by Mr. Patrick McInerney (Australia) and Mr. Leslie Smith (Grenada). In the limited time available, the contact group agreed that any further work on the matter should take place within the mandate and control obligations of the Montreal Protocol and should take account of the workloads of the assessment panels. The group also agreed that clarity was needed about which knowledge gaps needed to be closed and what work the panels and the parties could undertake to close those gaps.

48. The Working Group agreed to forward the draft decision to the Thirty-First Meeting of the Parties for further consideration. The draft decision is set out in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[B].

49. The parties may wish to discuss the draft decision further.

H. Issues related to exemptions under Articles 2A–2I of the Montreal Protocol (item 8 of the provisional agenda for the preparatory segment)

1. Nominations for critical-use exemptions for methyl bromide for 2020 and 2021 (item 8 (a) of the provisional agenda for the preparatory segment)

50. At the forty-first meeting of the Open-ended Working Group, the Methyl Bromide Technical Options Committee presented its report and the interim recommendations on the nominations for critical-use exemptions put forward by four parties, comprising two nomination each by two Article 5 parties (Argentina and South Africa) for 2020 and one nomination each by two non-Article 5 parties (Australia and Canada) for 2021 and 2020, respectively.

51. The Committee is expected to produce a final report on the evaluation of the nominations, taking into account any additional information provided by the nominating parties during and after the forty-first meeting of the Open-ended Working Group. The final report of the Committee will be posted on the meeting portal in due course.

52. The addendum to the present note will provide a summary of the final recommendations of the Committee and any other information relevant to the consideration of those recommendations by the Thirty-First Meeting of the Parties.

2. Stocks of methyl bromide (item 8 (b) of the provisional agenda for the preparatory segment)

53. During the discussion of the sub-item on stocks of methyl bromide at the forty-first meeting of the Open-ended Working Group, the representative of the European Union introduced a conference room paper co-sponsored by Norway, for consideration by the Working Group, consisting of two parts: (a) inviting the parties to provide information on their stocks of methyl bromide; and (b) requesting the Technology and Economic Assessment Panel to further clarify, through specific examples, what constituted an exempted use or quarantine and pre-shipment application of methyl bromide, and what constituted a controlled use of the chemical.

54. The Working Group established an informal group with Ms. Shontelle Wellington (Barbados) and Ms. Jessica Escaip (New Zealand) as co-facilitators. The group discussed the purpose, intention and scope of the draft decision and agreed that it should not be forwarded to the Thirty-First Meeting of the Parties, but that the issue should be included on the agenda of the Meeting.

55. The Working Group agreed to defer further consideration of the item to the Thirty-First Meeting of the Parties.

56. The parties may wish to discuss the matter further.

3. Development and availability of laboratory and analytical procedures that can be performed without using controlled substances under the Protocol (item 8 (c) of the provisional agenda for the preparatory segment)

57. At its forty-first meeting, the Open-ended Working Group discussed the current procedures under the Montreal Protocol for dealing with laboratory and analytical procedures using ozone

depleting substances, and the recommendations of the Technology and Economic Assessment Panel and its Medical and Chemicals Technical Options Committee on laboratory and analytical procedures. The recommendations were to remove nine specific laboratory and analytical procedures using methyl bromide, carbon tetrachloride and 1,1,1-trichloroethane from the global laboratory and analytical use exemption. Those recommendations and the related analysis of the Committee were contained in volume 4 of the September 2018 report of the Technology and Economic Assessment Panel, prepared in response to decision XXVI/5 on the development and availability of laboratory and analytical procedures that could be performed without using controlled substances, and were first discussed at the Thirtieth Meeting of the Parties in 2018. An update to the report was provided in the May 2019 progress report of the Technology and Economic Assessment Panel, but the recommendations remained the same.

58. During the discussion, it was mentioned that the current practice of removing procedures from the list on a chemical-by-chemical basis was onerous in terms of the administrative work required by the Technology and Economic Assessment Panel and the parties, including the effort needed from parties at the domestic level to confirm that ozone-depleting substances were no longer needed for specific laboratory and analytical uses. The overall effort required was not deemed commensurate with the associated environmental benefits. Furthermore, the fact that the list was not exhaustive could create confusion. A specific suggestion was made that included three possibilities:

(a) The global exemption could be extended indefinitely, with the Secretariat continuing to post on its website information on the total quantities of ozone-depleting substances for laboratory and analytical uses and to alert the parties to any significant upward trend for their review.

(b) Parties could be requested not to approve the use of ozone-depleting substances for laboratory and analytical methods that had been removed from the global exemption list approved by the parties, and could be encouraged or urged to further reduce their use of ozone-depleting substances for specific laboratory and analytic uses and facilitate the introduction of standards that did not require the use of such substances.

(c) The Technology and Economic Assessment Panel could be asked to periodically provide information on alternatives to ozone-depleting substances for certain procedures, essentially through its quadrennial reports.

59. A number of representatives expressed support for simplifying the existing procedure and agreed with the points raised. It was mentioned that in order to be sure how information would be provided under a simplified procedure, any decision taken on the matter needed to take into account paragraph 4 of decision XXX/15, according to which the Technology and Economic Assessment Panel was to provide a review of the laboratory and analytical uses of controlled substances if new, compelling information indicating an opportunity for significant reductions in production and consumption were to become available.

60. The Working Group agreed that interested parties would hold informal consultations during the intersessional period and report to the Thirty-First Meeting of the Parties on any progress made.

61. The parties may wish to continue the discussion, taking into consideration any intersessional progress made by interested parties.

4. Process agents (item 8 (d) of the provisional agenda for the preparatory segment)

62. At its forty-first meeting, the Open-ended Working Group discussed the issue of process agents, including the three recommendations on the uses of ozone-depleting substances made by the Medical and Chemicals Technical Options Committee in volume 3 of the May 2018 progress report of the Technology and Economic Assessment Panel. The Committee had recommended:

63. In the latest version of table A of decision X/14 (contained in decision XXIX/7):

(a) The removal of the use of CFC-113 in the preparation of perfluoropolyether diols

(b) The removal of the reference to the European Union under the application “chlorine recovery by tail gas absorption in chlor-alkali production”

64. In the latest version of table B of decision X/14 (contained in decision XXIII/7):

(a) The reduction of the quantities of “make-up or consumption” and “maximum emission” levels to take into account the process-agent uses and emissions currently reported.

65. The Working Group had before it a report on the industrial application of any alternative technologies used by parties in the processes listed in table A of decision X/14, prepared by the Panel pursuant to decision XXIX/7 as part of its May 2019 progress report (volume 1, section 5.2). In that

more recent report, the Panel had not changed its three recommendations from 2018. For ease of reference, the changes proposed by the Panel to table A of decision X/14 are indicated in table 1 of annex II to the present note. As a reference for the recommendation regarding table B of decision X/14, table 2 of annex II indicates the current limits for process agent uses (table B in decision XXIII/7) and the make-up or consumption and emissions quantities reported by parties for 2016. The make-up or consumption and emissions quantities reported by parties for 2017 (reflected in the Panel's May 2018 progress report) are presented in table 3 of annex II.

66. In the discussion, the following key issues were raised:

(a) The recommendation relating to perfluoropolyether diols could be considered as the company concerned was probably no longer using CFC-113 as a process agent. The situation regarding chlor-alkali production was more complex, however, and further research was required before the countries could pronounce on that matter and on the recommendation relating to table B of decision X/14.

(b) Before any decision was taken, it would be important to consult with parties still using ozone-depleting substances as process agents and understand their views on the recommendations made by the Panel.

(c) There were parallels between the discussions on process agents and on laboratory and analytical procedures in terms of the ever-smaller quantities being used for the applications and the need to find a simple way to deal with related issues.

(d) According to decision XXX/15, the Technology and Economic Assessment Panel was to provide its next review of process-agent uses of controlled substances no earlier than 2021, and every four years thereafter, if new compelling information were to become available. As that was not likely to happen, a revision to tables A and B of decision X/14 might be warranted.

(e) The list of process-agent applications had contained as many as 44 or 45 such applications at one time, but there were currently only 11. Decision X/14 had aimed to ensure that substances were used in a way that minimized emissions, and given that the countries still using process agents managed their emissions well, it might not be necessary to change table B.

67. The Working Group agreed that interested parties should hold informal consultations prior to the Thirty-First Meeting of the Parties in order to make specific proposals at that meeting regarding a possible decision on actions with regard to tables A and B of decision X/14 on process agents.

68. The parties may wish to discuss the matter further.

I. Access of parties operating under paragraph 1 of Article 5 of the Montreal Protocol to energy-efficient technologies in the refrigeration, air-conditioning and heat-pump sectors (item 9 of the provisional agenda for the preparatory segment)

69. At the forty-first meeting of the Open-ended Working Group, the Technology and Economic Assessment Panel's task force on energy efficiency presented a report, as requested by the parties in decision XXX/5, on the cost and availability of low-global-warming-potential technologies and equipment that maintained or enhanced energy efficiency.¹⁰ The report had been issued as volume 4 of the May 2019 report of the Panel, and the executive summary of the report was presented in annex V to document UNEP/OzL.Pro.WG.1/41/2/Add.1 for consideration by the Open-ended Working Group.

70. After a session in which the task force members answered questions from representatives about the presentation, a discussion took place, during which many representatives asked for the addition to the report of elements covering the following broad themes: (a) information about minimum energy performance standards (MEPS), including on enforcement, incorporation into building codes and the sectors where such standards could be introduced; (b) cooperation on energy efficiency standards and their association with safety standards; (c) availability of technologies and related patented technologies; (d) funding of energy efficiency technologies and new approaches to procurement; and (e) efficiency in the servicing sector (UNEP/OzL.Pro.WG.1/41/5, para. 146). In addition, several representatives from high-ambient-temperature countries spoke about the particular challenges faced by their countries, such as a lack of regulations applicable to manufacturers, and representatives from low-volume-consuming countries said that because of their small market size,

¹⁰ Report of the Technology and Economic Assessment Panel, May 2019, volume 4, *Decision XXX/5 task force report on cost and availability of low-GWP technologies/equipment that maintain/enhance energy efficiency*.

their lack of standards and capacity, and the extraordinarily high cost of bringing in new equipment, their countries faced difficulties in accessing the new technologies even when they were already available. The importance of training and capacity-building was also stressed (UNEP/OzL.Pro.WG.1/41/5, paras. 147 and 148).

71. The Working Group agreed that the Technology and Economic Assessment Panel should update its report with additional information, taking into account the comments made, and present the updated report for consideration by the Thirty-First Meeting of the Parties. The updated report of the Panel and its task force will be posted on the meeting portal when it becomes available and a summary will be included in the addendum to the present note.

72. The parties may wish to continue discussing the matter, taking into consideration the updated report of the Panel.

J. Terms of reference, composition, balance, fields of expertise and workload of the Technology and Economic Assessment Panel (item 10 of the provisional agenda for the preparatory segment)

73. At its forty-first meeting, the Open-ended Working Group discussed how the process of nomination and selection of members of the Technology and Economic Assessment Panel and its technical options committees and other subsidiary bodies might be strengthened. The parties had before it document UNEP/OzL.Pro.WG.1/41/4 reviewing the terms of reference, composition, balance, fields of expertise and workload of the Technology and Economic Assessment Panel, which had been prepared by the Secretariat, in consultation with the Panel, pursuant to decision XXX/15.

74. Following the discussion as captured in the report of the forty-first meeting (UNEP/OzL.Pro.WG.1/41/5, paras. 162–170) and informal consultations, the representative of Saudi Arabia introduced a conference room paper containing a draft decision on behalf of Argentina, Bahrain, India, Kuwait, Nigeria, Oman, Saudi Arabia and the United Arab Emirates. The Working Group established an informal group co-facilitated by Ms. Lara Haidar (Lebanon) and Mr. Philippe Chemouny (Canada), which discussed and made revisions to the draft decision. The group suggested that the Technology and Economic Assessment Panel and the Ozone Secretariat consider whether the form for nominating experts should be updated to reflect current circumstances.

75. The Working Group agreed to forward the revised draft decision, containing several parts in square brackets, to the Thirty-First Meeting of the Parties for further consideration. The draft decision can be found in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[D].

76. The parties may wish to consider the matter further. For ease of reference, the terms of reference of the Panel are set out in a background document posted on the meeting portal and the current matrix of needed expertise issued by the Panel is contained in annex III to the present note.

K. Membership of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol (item 11 of the provisional agenda for the preparatory segment)

77. During the forty-first meeting of the Open-ended Working Group, the representative of Bosnia and Herzegovina introduced a conference room paper submitted by Armenia and Bosnia and Herzegovina on behalf of Eastern Europe and Central Asia. The paper contained a draft decision to add to the Executive Committee membership one additional member from a non-Article 5 party and one additional member from an Article 5 party, with Eastern Europe and Central Asia being given a permanent seat among the membership from Article 5 parties, as opposed to the arrangement based on a four-year rotation that had been adopted in decision XVI/38. Stressing that all regions had the equal right to participate in the work of the Executive Committee, the proponent explained that of the two solutions initially considered, expanding the membership was preferred over the option of reserving the rotational seat permanently for the region, which would have been unfair to other regions. The issue was first raised and discussed in 2018, at the Thirtieth Meeting of the Parties.

78. The Working Group established an informal group co-facilitated by Ms. Elisabeth Munzert (Germany) and Ms. Laura Beron (Argentina) to further discuss the proposed draft decision. The group considered different options for addressing the various concerns, both within the existing structure of the Executive Committee and by making modifications to it, but further discussion was needed.

79. The Working Group agreed to forward the proposed draft decision to the Thirty-First Meeting of the Parties for further consideration. It is contained in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[E].

80. The parties may wish to further consider the matter.

L. Request by Azerbaijan to be included among the parties to which the phase-down schedule for hydrofluorocarbons, as set out in paragraphs 2 and 4 of Article 2J of the Montreal Protocol, applies (item 12 of the provisional agenda for the preparatory segment)

81. At its forty-first meeting, the Open-ended Working Group discussed the request of the Government of Azerbaijan to join Belarus, Kazakhstan, the Russian Federation, Tajikistan and Uzbekistan in implementing paragraphs 2 and 4 of Article 2J of the Protocol, thereby following a slightly later HFC phase-down schedule than other parties operating under Article 2 of the Convention. A conference room paper containing a draft decision on the matter was introduced by the representative of Azerbaijan and considered.

82. Interested parties held bilateral consultations on the matter, following which the representative of Azerbaijan said that the draft decision would be revised to improve on the version being forwarded to the Thirty-First Meeting of the Parties.

83. The Working Group agreed to forward the original version of the draft decision to the Thirty-First Meeting of the Parties for further consideration. It is contained in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[F].

84. The parties may wish to discuss the matter further.

M. Safety standards (item 13 of the provisional agenda for the preparatory segment)

85. At the forty-first meeting of the Open-ended Working Group, a discussion took place on the tabular overview of safety standards for flammable low-global-warming-potential refrigerants, developed by the Secretariat pursuant to decision XXIX/11. In the discussion, several representatives expressed appreciation for an online tool developed by the Secretariat, encouraged parties to continue providing information on safety standards to the Secretariat and requested the Secretariat to continue to update and further develop the online tool.

86. Issues mentioned during the discussion included: (a) the progress represented by the review of the International Electrotechnical Commission (IEC) standard 60335-2-89 to include new requirements for commercial refrigerants, which would facilitate the expanded use of low-global-warming-potential refrigerants; (b) the importance of ensuring that all relevant standards were revised to enable the increased availability and use of low-global-warming-potential refrigerants; (c) the need to consolidate information on standards governing the use of carbon dioxide as a refrigerant, in particular in the commercial refrigeration sector; (d) the appropriateness of certain standards to be used in specific regions; and (e) the need of Article 5 parties for training and capacity-building with regard to such standards, as well as for the raising of public awareness of the safe use of relevant equipment.

87. Following the discussion, the Working Group agreed to defer further consideration of the issue to the Thirty-First Meeting of the Parties. Further information on this matter will be included in an addendum to the present note.

88. The parties may wish to discuss the matter further.

N. Initial assessment by the Scientific Assessment Panel and the Technology and Economic Assessment Panel of five volatile fluoroorganic and related compounds found in the Arctic (item 14 of the provisional agenda for the preparatory segment)

89. At the Thirtieth Meeting of the Parties, the representative of Norway informed the meeting that his Government had commissioned the Norwegian Institute for Air Research at the beginning of 2018 to perform a screening survey to detect synthetic chemical substances in Arctic air samples. As a result, five volatile fluoroorganic compounds had been detected in the Arctic atmosphere for the first time. The Norwegian Government wanted to learn more about those anthropogenic substances, particularly regarding their emissions and the sectors that used them, and was seeking the guidance and help of other parties, the assessment panels, the scientific community and intergovernmental organizations in that regard. It was also interested in information on atmospheric concentrations and how they might affect the ozone layer and the climate system.

90. Subsequently, the Secretariat received a notification from Norway about the new substances that had been identified and a request that appropriate action be taken in accordance with decision IX/24. The Secretariat forwarded the information to the Scientific Assessment Panel and the Technology and Economic Assessment Panel and requested them to take the following actions, in accordance with paragraphs 3 and 4 of decision IX/24:

(a) The Scientific Assessment Panel to carry out an assessment of the ozone-depleting potential of the substances in question, to pass that information to the Technology and Economic Assessment Panel as soon as possible and to report to the next Meeting of the Parties;

(b) The Technology and Economic Assessment Panel to report to the Meeting of the Parties on any such new substance that the Scientific Assessment Panel has estimated to have a significant ozone-depleting potential, including an evaluation of the extent of use or potential use of each substance and, if necessary, the potential alternatives, and to make recommendations on actions that the parties should consider taking.

91. The two panels are expected to present a coordinated response on the matter at the Thirty-First Meeting of the Parties.

92. The parties may wish to discuss the matter.

O. Consideration of nominations to the assessment panels (item 15 of the provisional agenda for the preparatory segment)

93. At the forty-first meeting of the Open-ended Working Group, the issue of nominations for positions on the Technology and Economic Assessment Panel was addressed. The Open-ended Working Group had before it information¹¹ on: (i) Panel members whose terms expire at the end of 2019; and (ii) two nominations already received by the Secretariat, from Algeria for Mr. Sidi Menad Si-Ahmed to continue serving as a senior expert on the Panel for a period of four years, and from Japan for Mr. Keiichi Ohnishi to continue serving on the Panel as a co-chair of the Medical and Chemicals Technical Options Committee for an additional period of four years. Annex 1 to the progress report (volume 1) of the Panel's May 2019 report provides the current status of the Panel membership and table 1, below, lists the members whose terms expire at the end of 2019.

Table 1

Members of the Technology and Economic Assessment Panel whose terms expire at the end of 2019 and whose reappointment requires a decision by the Meeting of the Parties

<i>Name</i>	<i>Position</i>	<i>Country</i>
Kei-ichi Ohnishi	MCTOC co-chair	Japan
Jianjun Zhang	MCTOC co-chair	China
Suely Machado Carvalho	TEAP senior expert	Brazil
Sidi Menad Si-Ahmed	TEAP senior expert	Algeria

Abbreviations: MCTOC, Medical and Chemicals Technical Options Committee; TEAP, Technology and Economic Assessment Panel.

94. During the discussion, key points mentioned by representatives were that: (a) in addition to the specific elements in the matrix of needed expertise, clear requirements for nominees had been mentioned by the Panel, such as proficiency in English, computer skills, knowledge of electronic tools and the ability to function within a structure that worked on the basis of consensus, which should be taken into account when considering the nominations by parties; (b) the matrix of needed expertise was a tool that parties should use when choosing their nominees; and (c) parties were urged to follow the Panel's terms of reference, consult the Panel co-chairs and refer to the matrix of needed expertise when making nominations for appointments to the Panel (decision XXX/16, para. 8).

95. The Co-Chair of the Open-ended Working Group advised parties interested in nominations or intending to nominate experts to consult informally with a view to preparing nominations in time for the Thirty-First Meeting of the Parties, and to consult with Panel members to ensure that nominations would meet the requirements of the Panel.

96. Parties may wish to submit nominations to the positions in the Technology and Economic Assessment Panel before and during the Thirty-First Meeting of the Parties. Appointments to the

¹¹ See the addendum to the note by the Secretariat on issues for discussion by and information for the attention of the Open-ended Working Group of the Parties to the Montreal Protocol at its forty-first meeting, document UNEP/OzL.Pro.WG.1/41/2/Add.1.

positions on the Panel will require a decision by the parties. At the time of preparing the present note, no further nominations had been received by the Secretariat, but any updates will be provided in the addendum to the present note. Parties may wish to discuss the nominations with a view to deciding on appointments.

97. Nominations to the technical options committees other than for co-chair positions can be made at any time during the course of the year. Appointments are made by the co-chairs of the relevant committees in consultation with the Panel. For information and ease of reference, the list of committee members whose terms expire at the end of 2019 is set out in annex IV to the present note.

98. The terms of reference of the Panel are posted on the meeting portal for the Thirty-First Meeting of the Parties for ease of reference to the procedures for nominating and appointing Panel members, including co-chairs of the technical options committees and senior expert members, whose appointment requires a decision by the Meeting of the Parties, and other members of the technical options committees, whose appointment does not require such a decision. The matrix of expertise needed by the Technology and Economic Assessment Panel has been included in annex III to the present note.

P. Compliance and data reporting issues: the work and recommended decisions of the Implementation Committee under the Non-Compliance Procedure for the Montreal Protocol (item 16 of the provisional agenda for the preparatory segment)

99. The President of the Implementation Committee will report on party compliance issues considered during the Committee's sixty-second meeting (held on 29 June 2019) and sixty-third meeting (to be held on 2 November 2019, immediately prior to the Thirty-First Meeting of the Parties).

100. Any recommendations and draft decisions emanating from the Committee's meetings will be presented by the President for consideration and possible adoption by the Thirty-First Meeting of the Parties.

Q. Risk of non-compliance with hydrochlorofluorocarbon reduction targets for 2019 by the Democratic People's Republic of Korea (item 17 of the provisional agenda for the preparatory segment)

101. At the forty-first meeting of the Open-ended Working Group, the representative of the Democratic People's Republic of Korea indicated that, owing to its inability to receive the funding needed to implement its HCFC phase-out management plan and related activities as a result of the restrictions arising from United Nations Security Council sanctions, the Democratic People's Republic of Korea would not be able to comply with its HCFC obligations from 2019 onwards. She also introduced a conference room paper containing a draft decision on the matter.

102. The President of the Implementation Committee informed the Working Group that the matter had been referred to the Committee by the Ozone Secretariat as an issue of potential non-compliance under paragraph 4 of the non-compliance procedure of the Montreal Protocol. After considering all the information provided by the Ozone Secretariat, the Multilateral Fund secretariat and the United Nations Industrial Development Organization, the Committee had agreed that any work that it undertook with respect to the Democratic People's Republic of Korea should comply with the applicable United Nations Security Council resolutions. The Committee would discuss the matter further in the event of any future non-compliance by the Democratic People's Republic of Korea with its obligations under the Protocol.

103. Several representatives made statements saying that the Montreal Protocol's institutions had to take into account applicable international law and rules, including legally binding provisions of United Nations Security Council resolutions and sanctions. Thus, the Governments of those representatives that spoke were unable to support the draft decision proposed by the Democratic People's Republic of Korea. Given the lack of consensus in support of the proposed draft decision, the Working Group closed discussions on the item.

104. After the forty-first meeting of the Open-ended Working Group, the Secretariat received a formal request from the Democratic People's Republic of Korea for the same matter to be included on the agenda of the Thirty-First Meeting of the Parties. The party also submitted the same draft decision considered by the Open-ended Working Group for consideration by the Thirty-First Meeting of the Parties. The draft decision will be issued in a conference room paper at the Meeting.

105. The parties may wish to consider the matter.

R. Status of ratification of the Kigali Amendment to the Montreal Protocol (item 18 of the provisional agenda for the preparatory segment)

106. The Kigali Amendment to the Montreal Protocol was adopted in 2016 by decision XXVIII/1 at the Twenty-Eighth Meeting of the Parties to the Montreal Protocol. The Amendment entered into force on 1 January 2019, having fulfilled the requirement for at least 20 instruments of ratification, acceptance or approval of the Amendment to be deposited with the Secretary-General of the United Nations before that date by parties to the Protocol.¹² At the time of preparing the present note, 81 parties had ratified the Amendment.

107. Document UNEP/OzL.Pro.31/INF/3, to be issued closer to the start of the meeting, will set out the status of ratification of the Kigali Amendment by the parties, and any further update will be provided at the Thirty-First Meeting of the Parties itself.

108. A placeholder decision on the matter, which records the status of ratification at the time of the Thirty-First Meeting of the Parties and urges further ratification by parties, is set out in document UNEP/OzL.Pro.31/3 as draft decision XXXI/[AA].

S. Other matters (item 19 of the provisional agenda for the preparatory segment)

109. Any additional issues agreed for inclusion on the agenda under item 2 (a), "Adoption of the agenda of the preparatory segment", will be taken up under agenda item 19, "Other matters".

III. Overview of items on the provisional agenda for the high-level segment (7 and 8 November 2019)

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

110. The high-level segment is scheduled to be opened at 10 a.m. on Thursday, 7 November 2019.

Statements by representatives of the Government of Italy and the United Nations Environment Programme, the President of the Thirtieth Meeting of the Parties to the Montreal Protocol and Pope Francis (item 1 (a), (b), (c) and (d) of the provisional agenda for the high-level segment)

111. Opening statements will be made by the representatives of the Government of Italy and the United Nations Environment Programme, by the President of the Thirtieth Meeting of the Parties to the Montreal Protocol and by Pope Francis (item 1 (a), (b), (c) and (d) of the provisional agenda for the high-level segment).

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

1. Election of officers for the Thirty-First Meeting of the Parties to the Montreal Protocol (item 2 (a) of the provisional agenda for the high-level segment)

112. In accordance with rule 21 of the rules of procedure for meetings of the parties to the Montreal Protocol, the Thirty-First Meeting of the Parties must elect a president, three vice-presidents and a rapporteur. A representative of a party from the group of Eastern European States presided over the Thirtieth Meeting of the Parties, while a representative of a party from the group of Asia-Pacific States 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 Latin American and Caribbean States to preside over the Thirty-First Meeting of the Parties and a party from the group of Eastern European States to serve as rapporteur. The parties may also wish to elect three vice-presidents, one each from the groups of African States, Asia-Pacific States and Western European and other States.

¹² See Kigali Amendment, Article IV: Entry into force. <https://ozone.unep.org/treaties/montreal-protocol/amendments/kigali-amendment-2016-amendment-montreal-protocol-agreed>.

2. Adoption of the agenda of the high-level segment of the Thirty-First Meeting of the Parties to the Montreal Protocol (item 2 (b) of the provisional agenda for the high-level segment)

113. The provisional agenda for the high-level segment is set out in section II of document UNEP/OzL.Pro.31/1 and will be before the parties for adoption. The parties may wish to adopt the agenda, including any items that they may agree to include under item 8, "Other matters".

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

114. The President of the Thirty-First Meeting of the Parties is expected to outline a plan of work for discussing the items on the agenda.

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

115. In accordance with rule 18 of the rules of procedure, 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 credentials duly signed by the appropriate authority for submission 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 their synthesis of the 2018 quadrennial assessments (item 3 of the provisional agenda for the high-level segment)

116. Under this agenda item, the three assessment panels will present their synthesis of the 2018 quadrennial assessments. The synthesis report is set out in document UNEP/OzL.Pro.31/8. The parties may wish to consider the report and take action as appropriate at the current meeting and/or later as they deem appropriate.

D. Presentation by the Chair of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol on the work of the Executive Committee, the Multilateral Fund secretariat and the Fund's implementing agencies (item 4 of the provisional agenda for the high-level segment)

117. Under agenda item 4, the Chair of the Executive Committee of the Multilateral Fund will introduce a report by the Executive Committee to the parties highlighting the key decisions made by the Committee and the work undertaken by the Multilateral Fund secretariat and the Fund's implementing agencies since the Thirtieth Meeting of the Parties. The report of the Executive Committee to the Thirty-First Meeting of the Parties can be found in document UNEP/OzL.Pro.31/9.

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

118. Under this agenda item, heads of delegation 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 will compile 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 delegation 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.

119. Under this agenda item, a high-level round-table discussion is being organized by the Ozone Secretariat, in cooperation with the Government of Italy. At the forty-first meeting of the Open-ended Working Group, the representative of Italy informed the meeting that the round-table discussion would address the topic of the contribution of the Montreal Protocol to a sustainable cold chain to reduce food loss, and referred to further information on the issue provided in a note by the Secretariat.¹³ The concept note and provisional agenda for the round table are set out in document UNEP/OzL.Pro.31/INF/7.

¹³ UNEP/OzL.Pro.WG.1/41/2, paras. 73–75.

120. At the forty-first meeting of the Open-ended Working Group, a draft of the proposed outcome document for the Thirty-First Meeting of the Parties, the “Rome declaration”, was posted on the meeting portal for parties to examine during the intersessional period and to use in their national-level consultations. The Open-ended Working Group agreed to continue bilateral consultations on the matter during the intersessional period and to resume discussions on the draft declaration at the Thirty-First Meeting of the Parties.

121. The Thirty-First Meeting of the Parties may wish to consider the draft declaration, which has been reproduced as annex V to the present document, and to decide on an appropriate way forward.

F. Report by the co-chairs of the preparatory segment and consideration of the decisions recommended for adoption by the Thirty-First Meeting of the Parties (item 6 of the provisional agenda for the high-level segment)

122. Under agenda item 6, 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, including on the draft decisions to be considered for adoption during the high-level segment.

G. Dates and venue for the Thirty-Second Meeting of the Parties to the Montreal Protocol (item 7 of the provisional agenda for the high-level segment)

123. It is expected that the Thirty-First Meeting of the Parties will adopt a decision on the dates and venue of the Thirty-Second Meeting of the Parties. The relevant placeholder draft decision is set out as draft decision XXXI/[FF] in document UNEP/OzL.Pro.31/3.

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

124. Any additional substantive issues agreed for inclusion in the agenda under item 2 (b), “Adoption of the agenda”, will be taken up under agenda item 8, “Other matters”.

I. Adoption of decisions by the Thirty-First Meeting of the Parties to the Montreal Protocol (item 9 of the provisional agenda for the high-level segment)

125. Under agenda item 9, the Thirty-First Meeting of the Parties will adopt decisions on the matters on the agenda.

J. Adoption of the report (item 10 of the provisional agenda for the high-level segment)

126. Under agenda item 10, the Thirty-First Meeting of the Parties will adopt the report of the meeting.

K. Closure of the meeting (item 11 of the provisional agenda for the high-level segment)

127. The Thirty-First Meeting of the Parties to the Montreal Protocol is expected to close by 6 p.m. on Friday, 8 November 2019.

Annex I

Report of the contact group on unexpected emissions of trichlorofluoromethane (CFC-11)

Presented orally to the Open-ended Working Group in plenary session on 5 July 2019

1. The contact group met four times, with a rather broad mandate from the parties, namely to consider further: (a) technical and scientific issues related to the unexpected emissions of CFC-11 with a view to identifying the information that needed to be enhanced; and (b) institutional matters and processes under the Vienna Convention and the Montreal Protocol, including monitoring, reporting and verification, compliance, licensing and illegal trade. The parties had, at the time of the contact group's establishment, agreed that additional matters could be added to its mandate if necessary.

2. During the contact group's first meeting the parties asked the Scientific Assessment Panel for further information and clarifications regarding its reports to the Open-ended Working Group as well as the papers by Montzka and others (2018)¹ and Rigby and others (2019).² The replies provided greater understanding of the scientific issues explored as well as some of the challenges in identifying the remaining sources of the unexpected emissions and gave rise to a discussion on atmospheric monitoring of emissions. At the contact group's second meeting, the parties were able to explore in more depth the approach taken by the Technology and Economic Assessment Panel task force on CFC-11 and the issues covered in its report to the Open-ended Working Group. The task force provided an overview of issues to be considered in its final report, namely:

- (a) Potential CFC-11 use in closed-cell polyurethane foams and polyol systems;
- (b) Potential quantities of CFC-11 and carbon tetrachloride (CTC) production needed to supply uses;
- (c) CFC-11 emission rates from banks (installed foams) and from landfills, not as the likely source of the increased emissions but to better quantify and understand those background emissions;
- (d) CFC-11 banks, by geographic location and market sector, to better understand background emissions levels from banks to help to better understand the magnitude of unexpected emissions;
- (e) Regulations preventing the use of dichloromethane in flexible foams;
- (f) Recent enforcement action and/or prosecutions undertaken in relation to CFC-11 and CTC production, and/or associated uses, to determine the possible scope of the problem;
- (g) Evaluation of the implications of new scientific publications, such as Rigby and others (2019).

3. The task force also identified the following topics on which it would benefit from additional information from the parties for its final report:

- (a) CTC production quantities and the uses to which CTC was put, by quantity, including export amounts and locations;
- (b) CTC and HCFC-22 plant capacities;
- (c) Validation of shutdowns and dismantling of plants producing ozone-depleting substances;
- (d) Quantities of CFC-11 inventory in stockpiles at the cessation of production, and the fate of such inventory thereafter;
- (e) Any evidence of illegal CFC-11 or CTC shipments;

¹ S. A. Montzka and others, "An unexpected and persistent increase in global emissions of ozone-depleting CFC-11", *Nature*, vol. 557, pp. 413-417 (16 May 2018).

² M. Rigby and others, "Increase in CFC-11 emissions from eastern China based on atmospheric observations", *Nature*, vol. 569, pp. 546-550 (22 May 2019).

- (f) The capacities and production quantities for CFC-11 and CFC-12 and CTC tetrachloride plants in parties regarding which less is known about historical production of ozone-depleting substances;
- (g) CFC-11 emission sources related to recycling and destruction of equipment and foams;
- (h) Foam blowing agent emissions rates that may be used for any purpose (i.e., to determine insulating capability or exposure from a public health perspective);
- (i) Specific end-of-life practices, especially for foams;
- (j) Regulations affecting the use of dichloromethane.

4. Parties are invited to provide any relevant information that they may have on these issues to the Ozone Secretariat by 31 July 2019 in order to give the task force time to review it and finalize their report for submission to the Thirty-First Meeting of the Parties.

5. The third and fourth meetings of the contact group dealt with the second part of its mandate. The group started by looking at issues that had been identified during the discussion of the agenda item in plenary session. The parties had a very fruitful and rich exchange of views on a number of the main issues and heard information and clarifications from the Secretariat on a few of them. The issues considered by the group comprised the following:

- (a) Very broadly, the need to understand the past: what happened, how and why, and its implications:
 - (i) Parties noted that it was important not to be complacent and to ensure that licensing and domestic enforcement systems were comprehensive and effective.
 - (ii) There was disappointment with the situation that had occurred, and there was openness to considering actions and suggestions for next steps in relation to the specific situation and in relation to considering institutional changes.
- (b) Atmospheric monitoring and observation, and actions that had been proposed in the report of the international symposium on the unexpected increase in emissions of CFC-11 held in Vienna in March 2019:
 - (i) There was broad interest in looking at additional monitoring to detect regional emissions; however, this needed to be in the context of a strategic plan and prioritization.
 - (ii) However, it was noted that monitoring was not a substitute for national-level implementation of obligations.
- (c) The General Trust Fund for financing activities on research and systematic observations:
 - (i) It was noted that the Trust Fund, being primarily targeted at capacity-building for parties operating under paragraph 1 of Article 5 of the Montreal Protocol (Article 5 parties), was not necessarily the right mechanism for building monitoring capability.
- (d) The role of the ozone research managers and its connection to the Scientific Assessment Panel:
 - (i) There was interest in seeking advice from the ozone research managers and the Scientific Assessment Panel on potentially useful sites for additional monitoring.
- (e) The need for equal treatment of all parties in respect of obligations:
 - (i) Parties acknowledged that all parties had Article 7 and licensing obligations to meet but that there were additional financial obligations under the Multilateral Fund for Implementation of the Montreal Protocol, which meant that there was a transparent verification of country programme data reported by Article 5 parties.
- (f) Strengthening monitoring, reporting and verification more generally:
 - (i) All parties were open to the concept of transparency of their licensing systems, with the opportunity to learn from other countries' systems.
- (g) The need for any measures adopted to be proportional to the financial resources available, especially in Article 5 countries.

(h) Illegal trade and reporting under decision XIV/7, and the related issues of informal prior informed consent, licensing systems, and domestic compliance and enforcement:

- (i) Licensing systems were fundamental to ensure that overall compliance with obligations, and it was important to ensure that they were fulfilling that role and would continue to do so in the future, especially in relation to new substances.
- (ii) There was interest in additional action to address illegal trade and reporting of illegal trade to the Ozone Secretariat.

(i) Monitoring and testing of CFC-11 in blends and polyols:

- (i) Some parties drew attention to their different control systems for polyols; it was acknowledged that differences among control systems might be confusing and that there might be room for better understanding of those differences.

6. The role of the Montreal Protocol compliance mechanism in dealing with such issues:

- (i) It was acknowledged that the existing compliance mechanism had worked well to date but was not well suited to addressing the current specific situation of CFC-11.
- (ii) The President of the Implementation Committee said that the Committee had asked the Secretariat to prepare a discussion paper on the compliance mechanism for its next meeting, noting that the paper needed to be within the Committee's mandate.

7. The contact group urged the parties to consider those issues intersessionally and to come to the Thirty-First Meeting of the Parties prepared to decide on the way forward on the issues. It considered that it was important to keep the issue on the agenda of the Thirty-First Meeting of the Parties, and it requested that the present report be incorporated into the report of the forty-first meeting of the Open-ended Working Group.

Annex II

Table 1
Changes to table A of decision X/14 (in decision XXIX/7) proposed by the Medical and Chemicals Technical Options Committee
List of uses of controlled substances as process agents

<i>No.</i>	<i>Process agent application</i>	<i>Substance</i>	<i>Permitted parties</i>
1	Elimination of NCl_3 in chlor-alkali production	CTC	European Union, Israel, United States
2	Recovery of chlorine by tail gas absorption from chlor-alkali production	CTC	European Union, United States
3	Production of chlorinated rubber	CTC	European Union
4	Production of chlorosulfonated polyolefin	CTC	China
5	Production of aramid polymer	CTC	European Union
6	Production of synthetic fibre sheet	CFC-11	United States
7	Photochemical synthesis of perfluoropolyetherpolyperoxide precursors of Z-perfluoropolyethers and difunctional derivatives	CFC-12	European Union
8	Preparation of perfluoropolyether diols with high functionality	CFC-113	European Union
9	Production of cyclodime	CTC	European Union
10	Bromination of a styrenic polymer	BCM	United States
11	Production of high modulus polyethylene fibre	CFC-113	United States

Abbreviations: BCM, bromochloromethane; CFC, chlorofluorocarbon; CTC, carbon tetrachloride.

Table 2
Limits for process-agent uses (table B of X/14 (in decision XXIII/7)) and reported make-up or consumption and emissions for 2016
(Metric tons^a per year)

<i>Party</i>	<i>Make-up or consumption (decision XXIII/7)</i>	<i>Maximum emissions (decision XXIII/7)</i>	<i>Reported make-up or consumption for 2016</i>	<i>Reported emissions for 2016</i>
China	1 103	313	177.42	105.05
European Union	1 083	17	365.28	3.808
Israel	3.5	0	0	0.0143
United States	2 300	181	Not reported	[31.2 ODP-tons]
Total	4 489.5	511	[542.70]^b	[108.8723]^b

Abbreviation: ODP, ozone-depletion potential.

^a Except for the *amount* reported by the United States, which is given in ODP-weighted metric tons.

^b Nominal totals for 2016, which exclude data not reported or data reported in ODP-weighted metric tons.

Table 3
Reported process agent make-up or consumption and emissions for 2017
 (Metric tons^a per year)

<i>Party</i>	<i>Reported make-up or consumption for 2017</i>	<i>Reported emissions for 2017</i>
China	175.96	104.19
European Union	324.301	4.143
Israel	0	0
United States	Not reported	[24.65 ODP-tonnes]
Total	[500.261]^b	[108.833]^b

Abbreviation: ODP, ozone-depletion potential.

^a *Except* for the amount reported by the United States, which is given in ODP-weighted metric tons.

^b Nominal totals for 2017, which exclude data not reported or data reported in ODP-weighted metric tons.

Annex III

Matrix of expertise needed by the Technology and Economic Assessment Panel

Body	Required expertise	A5/non-A5 party
FTOC	XPS technology and conversion in Asia especially in India and China PU System House technical experts Additional foam chemistry experts Building envelope/energy efficiency	A5 Southern Africa, Middle East, India, Mexico A5/non-A5 A5/non-A5
HTOC	Fire suppression applications in civil aviation Knowledge of halon alternatives and their market penetration Knowledge of banking and supplies of halon and alternatives Knowledge of ship-breaking activities	A5, Southeast Asia A5, Africa, South America, South Asia A5, Africa, South America A5 or non-A5
MBTOC	Issues related to the validation of alternatives to methyl bromide for certification of nursery plant materials related to movement across state and international boundaries and related risk assessment Expert in economic assessment of alternatives to methyl bromide Expert in QPS uses of methyl bromide and alternatives	A5 or non-A5 Non-A5 A5
MCTOC	Destruction technologies (experts with knowledge on the range of different technologies) Laboratory and analytical uses (experts with knowledge of analytical procedures)	A5 or non-A5
RTOC	Not seeking additional experts at this time	
Senior experts	Extensive knowledge of the MLF operations and/or assessing financial needs of A5 parties relating to MLF replenishment Extensive knowledge of global financing mechanisms and options relevant to ozone and climate protection	A5 or non-A5 A5 or non-A5

Abbreviations: A5, Article 5; FTOC, Flexible and Rigid Foams Technical Options Committee; HTOC, Halons Technical Options Committee; MBTOC, Methyl Bromide Technical Options Committee; MCTOC, Medical and Chemicals Technical Options Committee; MLF, Multilateral Fund for the Implementation of the Montreal Protocol; PU, polyurethane; QPS, quarantine and pre-shipment; RTOC, Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee; XPS, extruded polystyrene.

Annex IV

Members of the Technology and Economic Assessment Panel technical options committees^a whose terms expire at the end of 2019 and whose reappointment does not require a decision by the Meeting of the Parties

<i>Name</i>	<i>Position</i>	<i>Country</i>
Members of technical options committees		
Paul Ashford	FTOC member	United Kingdom
Angela Austin	FTOC member	United Kingdom
Kultida Charoensawad	FTOC member	Thailand
Lisa Norton	FTOC member	United States
Miguel Quintero	FTOC member	Colombia
Johan Åqvist	HTOC member	Sweden
Youri Auroque	HTOC member	France
Sait Erturk	MBTOC member	Turkey
Jordi Riudavets	MBTOC member	Spain
Jose Pons Pons	MCTOC member	Venezuela
Paula Ryttilä	MCTOC member	Finland
Ashley Woodcock	MCTOC member	United Kingdom
Mohan Lal D.	RTOC member	India
Maher Mousa	RTOC member	Saudi Arabia
Samuel Yana Motta	RTOC member	Peru

^a The five technical options committees are: Flexible and Rigid Foams Technical Options Committee (FTOC), Halons Technical Options Committee (HTOC), Methyl Bromide Technical Options Committee (MBTOC), Medical and Chemicals Technical Options Committee (MCTOC) and Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee (RTOC).

Annex V

DRAFT

Rome Declaration on the Contribution of the Montreal Protocol to Food Loss Reduction through Sustainable Cold Chain Development

We, the ministers and heads of delegation of the parties [...] to the Montreal Protocol on Substances that Deplete the Ozone Layer

Considering the discussions at the round table opening the high-level segment of the Thirty-First Meeting of the Parties to the Montreal Protocol at the headquarters of the Food and Agriculture Organization of the United Nations, which has a prominent role in reducing food losses,

Recalling that about one-third of all food produced globally for human consumption is either lost or wasted, which has severe impacts on farmers' incomes and precious resources such as land, water and energy and generates greenhouse gases,

Reaffirming the cooperation among parties in implementing the Montreal Protocol and recognizing that the Montreal Protocol and its Kigali Amendment have raised awareness of the need to develop sustainable and efficient solutions in the refrigeration and air-conditioning sector to meet future cooling demand, including cold-chain initiatives for food preservation,

Aware of the key role of the cold chain in the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals related to, inter alia, ending hunger and poverty, food security, improved nutrition, climate action, sustainable agriculture and fisheries, health and well-being,

1. *Stress* the importance of pursuing national action and international cooperation to promote the development of the cold chain, including by using sustainable and environmentally friendly refrigeration to reduce food loss;
2. *Underscore* the multiple benefits of promoting the exchange of information on the contribution of the cold chain to the Sustainable Development Goals and encourage the ongoing work under the Montreal Protocol to this end;
3. *Call for* strengthening cooperation and coordination between Governments, the institutions of the Montreal Protocol, the specialized agencies of the United Nations, existing private and public initiatives and all relevant stakeholders to exchange knowledge and promote innovation of energy-efficient solutions and technologies that reduce the use of substances controlled by the Montreal Protocol in the development of the cold chain, thereby contributing to the reduction of food loss and waste.

Rome, 7–8 November 2019
