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Twelfth meeting of the Conference of  
the Parties to the Vienna Convention  
for the Protection of the Ozone Layer, part I

Thirty-Second Meeting of the Parties to  
the Montreal Protocol on Substances  
that Deplete the Ozone Layer

Online, 23–27 November 2020

**Issues for discussion by and information for the attention of the  
Conference of the Parties to the Vienna Convention for the  
Protection of the Ozone Layer at its twelfth meeting (part I) and  
the Thirty-Second Meeting of the Parties to the Montreal  
Protocol**

**Note by the Secretariat**

**Addendum**

**I. Introduction**

1. The present addendum to the note by the Secretariat on issues for discussion by and information for the attention of the Conference of the Parties to the Vienna Convention for the Protection of the Ozone Layer at its twelfth meeting (part I) and the Thirty-Second Meeting of the Parties to the Montreal Protocol (UNEP/OzL.Conv.12(I)/2–UNEP/OzL.Pro.32/2)<sup>1</sup> contains information that has become available since the preparation of that note along with other relevant updates.

2. Section II of the addendum sets out a summary of the final recommendations and other relevant information by the Technology and Economic Assessment Panel on the nominations for critical-use exemptions for methyl bromide in relation to agenda item 4. Section III provides information on the status of additional reports to be prepared by the Scientific Assessment Panel and the Technology and Economic Assessment Panel for consideration by the parties at the forty-third meeting of the Open-ended Working Group, scheduled to be held in July 2021, and at the Thirty-Third Meeting of the Parties, scheduled to be held in October 2021.

\* UNEP/OzL.Conv.12(I)/1–UNEP/OzL.Pro.32/1.

<sup>1</sup> Available on the Ozone Secretariat meeting portal at <https://ozone.unep.org/meetings/combined-twelfth-meeting-conference-parties-part-i-and-thirty-second-meeting-parties/pre-session-documents>.

## II. Overview of agenda items for the preparatory segment (23–26 November 2020)

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

#### 1. Nominations for methyl bromide critical-use exemptions for 2021 and 2022 (item 4 (b) of the provisional agenda for the preparatory segment)

3. As set out in the note by the Secretariat (UNEP/OzL.Conv.12(I)/2–UNEP/OzL.Pro.32, paras. 29–32), the Methyl Bromide Technical Options Committee of the Technology and Economic Assessment Panel evaluated a total of six nominations for critical-use exemptions submitted in 2020. Two parties operating under paragraph 1 of Article 5 of the Montreal Protocol (Article 5 parties), Argentina and South Africa, submitted two nominations each for 2021, and two parties not so operating (non-Article 5 parties), Australia and Canada, submitted one nomination each, for 2022 and 2021 respectively.

4. The Committee presented the findings of its evaluation and interim recommendations in volume 2 of the Technology and Economic Assessment Panel’s May 2020 report,<sup>2</sup> which was made available to the parties during the online work of the forty-second meeting of the Open-ended Working Group in July 2020. Parties were able to submit comments and questions on the report through a dedicated online forum established by the Secretariat, to which the Committee responded. Discussions between nominating parties and the Committee continued thereafter, including on the information needed for the Committee to re-evaluate any nominations upon request and make final recommendations for consideration by the Thirty-Second Meeting of the Parties. None of the nominating parties requested a reassessment of their nominations.

5. In the light of the above, the Committee prepared its final report,<sup>3</sup> in which it recommended the full amount nominated by Australia and reduced amounts for the nominations put forward by Canada, Argentina and South Africa.

6. The total amount of methyl bromide nominated for 2021 and 2022 was 88.851 tonnes, of which the Committee made a final recommendation for authorization of a total 69.607 tonnes. The final recommendations for each nomination are set out in the table below. The reasons given by the Committee for not recommending the full nominated amounts for certain parties are summarized, where relevant, in the footnotes to the table.

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<sup>2</sup> Technology and Economic Assessment Panel. Report of the Technology and Economic Assessment Panel (May 2020). Volume 2: Evaluation of 2020 Critical-Use Nominations for Methyl Bromide and Related Issues – Interim Report. Available at <https://ozone.unep.org/system/files/documents/TEAP-CUN-interim-report-may2020.pdf>.

<sup>3</sup> Technology and Economic Assessment Panel (September 2020). Volume 1: Evaluation of 2020 Critical-Use Nominations for Methyl Bromide and Related Issues – Final Report. Available at <https://ozone.unep.org/system/files/documents/TEAP-CUN-final-report-September-2020.pdf>.

**Summary of the nominations for 2021 and 2022 critical-use exemptions for methyl bromide submitted in 2020 and of the final recommendations of the Methyl Bromide Technical Options Committee**  
(Metric tons)

<i>Party</i>	<i>Nomination for 2021</i>	<i>Final recommendation for 2021</i>	<i>Nomination for 2022</i>	<i>Final recommendation for 2022</i>
<b>Non-Article 5 parties and sectors</b>				
1. Australia				
Strawberry runners			28.98	[28.98]
2. Canada				
Strawberry runners	5.261	[5.017] <sup>a</sup>		
<b>Subtotal</b>	<b>5.261</b>	<b>[5.017]</b>	<b>28.98</b>	<b>[28.98]</b>
<b>Article 5 parties and sectors</b>				
3. Argentina				
Tomato	12.07	[6.96] <sup>b</sup>		
Strawberry fruit	7.54	[4.35] <sup>c</sup>		
4. South Africa				
Mills	1.0	[0.30] <sup>d</sup>		
Structures	34.0	[24.0] <sup>e</sup>		
<b>Subtotal</b>	<b>54.61</b>	<b>[35.610]</b>		
<b>Total</b>	<b>59.871</b>	<b>[40.627]</b>	<b>28.98</b>	<b>[28.98]</b>

<sup>a</sup> The nominated amount has been reduced by 4.6 per cent to account for generation 2A production of runner tips (a step-wise system producing propagation material that increases at each step), as the Methyl Bromide Technical Options Committee considers that facilities presently being constructed by the applicant will be available to use soil-less technologies by 2021.

<sup>b</sup> The nominated amount has been reduced by 42.3 per cent, based on a lower dosage rate (reduced from 26.0 to 15.0 g/m<sup>2</sup>) for the adoption of barrier films (for example, totally impermeable film for the treated area, which is 58 per cent of the 80 hectares nominated (80 hectares x 58 per cent x 15 g/m<sup>2</sup>), in accordance with the Methyl Bromide Technical Options Committee's standard presumptions.

<sup>c</sup> The recommended amount, which represents a 42.3 per cent reduction from the amount nominated, is based on the adoption of barrier films (for example, virtually impermeable films and totally impermeable films) for the nominated areas. That includes 1.523 tons for Mar del Plata (17.5 hectares x 58 per cent x 15 g/m<sup>2</sup>) and 2.827 tons for Lules (32.5 hectares x 58 per cent x 15 g/m<sup>2</sup>). The dosage rate of 15 g/m<sup>2</sup> is based on the use of barrier films and row treatments that make up 58 per cent of the field area.

<sup>d</sup> The recommended amount is the same as the approved amount of the critical-use exemption for 2020 and represents a 70 per cent reduction from the nomination sought by the party for use in 2021 for pest control in grit mills. The reduction is based on a lower number of fumigations with an amount of methyl bromide sufficient for one fumigation per year per mill at 24 g/m<sup>3</sup>. Even though that rate exceeds the Methyl Bromide Technical Options Committee's standard presumption of 20 g/m<sup>3</sup>, it is the lowest registered dosage. The recommendation is only supported as a further transitional measure to allow time for the adoption and optimization of alternatives in an integrated pest management system, with phase-in of phosphine or an alternative whole-site fumigant, such as sulfuryl fluoride, if desired, in small, old mills.

<sup>e</sup> The recommended amount represents a 29.4 per cent reduction of the nominated amount for 2020, as the Methyl Bromide Technical Options Committee considers that sulfuryl fluoride is a suitable alternative for nearly all the circumstances of the nomination and the transition can be made within three years. A transition of 10 per cent is considered possible in 2020, with a further 30 per cent in 2021, resulting in a 40 per cent total reduction of the amount nominated in 2019. Further validation may be required during that time to determine the efficacy of sulfuryl fluoride for control of wood-boring beetles and, in particular, their eggs.

7. In addition to the final recommendations on critical-use nominations, the report of the Methyl Bromide Technical Options Committee recalls the reporting requirements under relevant decisions and provides information on trends in methyl bromide critical-use nominations and exemptions for all nominating parties to date, on the reported accounting frameworks for critical uses and stocks of methyl bromide, and on the submission of national management strategies for the phase-out of critical uses of methyl bromide.

8. Based on the accounting framework information received from the nominating parties in 2020, total stocks of methyl bromide at the end of 2019 were 50.775 tonnes. The Committee reiterates in its report, however, that the accounting information does not show accurately the total stocks of methyl bromide held globally for controlled uses by Article 5 parties, as some parties have no formal mechanism to account accurately either for such stocks or for stocks used in quarantine and pre-shipment applications, and there is no requirement for parties under the Montreal Protocol to

report pre-2015 stocks. According to the Committee, such stocks may be substantial (greater than 1,500 tonnes).

9. With regard to the submission of national management strategies for the phase-out of critical uses of methyl bromide, the Methyl Bromide Technical Options Committee reiterates that no detailed management plans were received from Argentina or South Africa, but notes the progress made by those parties in reducing their nominated amounts.

10. The parties may wish to consider the final report and recommendations of the Methyl Bromide Technical Options Committee and adopt decisions on critical-use exemptions as appropriate.

## **2. Emergency use of methyl bromide authorized in 2020**

11. In addition to the evaluation of the critical-use nominations and final recommendations, the Committee provided information on two methyl bromide emergency-use notifications submitted to the Secretariat in 2020 by Australia and Canada, in accordance with decision IX/7. Canada notified the Secretariat on 30 March 2020 that it expected to consume a quantity of methyl bromide not exceeding 1.764 tonnes for emergency use in 2020. That amount was part of 5.261 tonnes for use in pre-plant soil fumigation of strawberry runners granted to Canada in 2019 by decision XXXI/4, which was not used in that year due to unfavourable local weather conditions and was therefore carried forward from 2019 to 2020.<sup>4</sup>

12. In correspondence dated 27 July 2020, Australia notified the Secretariat that in April 2020 it had authorized emergency use of up to 1.671 tonnes of methyl bromide for fumigation of domestically grown rice for domestic consumption, with a requirement that 1.3 tonnes would be recaptured and disposed of after fumigation. According to the party, that emergency use was required because the unprecedented consumer demand owing to the coronavirus disease (COVID-19) pandemic restrictions had resulted in a shortage of rice for Australian consumers. The applicant later reported that it had used 0.111 tonnes of methyl bromide under the emergency-use permit for four fumigations. The methyl bromide from those fumigations had not been recaptured.

13. In accordance with the requirement under decision IX/7 on emergency methyl bromide use, the Secretariat and the Technology and Economic Assessment Panel evaluated the above uses according to the “critical methyl bromide use” criteria. No issue was raised on the authorization by Canada and the Panel’s Methyl Bromide Technical Options Committee noted in its report that this matter could be considered to be a scheduling issue whereby amounts of methyl bromide granted by the parties for critical uses would be stocked for use in the following season due to unfavourable conditions, and not an emergency use as specified in the decision.

14. With respect to the emergency use by Australia, the Committee did not raise major concerns, although the question did arise of how other countries managed to meet unusual or unanticipated demand for rice associated with the COVID-19 pandemic, as the crisis had affected the whole world. Nevertheless, the Committee recognized that although phosphine is a validated alternative, treatment with it takes longer and may be a hurdle to adopting this alternative, as mentioned by Australia in its notification.

15. The parties may wish to take note of the two cases of emergency use that were authorized in 2020.

## **III. Status of expected assessment panel reports for consideration by the parties at their meetings in 2021**

### **A. Energy-efficient and low-global-warming-potential technologies**

16. By its decision XXXI/7, on continued provision of information on energy-efficient and low-global-warming-potential technologies, the Thirty-First Meeting of the Parties requested the Technology and Economic Assessment Panel to prepare a report for consideration by the Thirty-Second Meeting of the Parties addressing any new developments with respect to best practices, availability, accessibility and cost of energy-efficient technologies in the refrigeration, air-conditioning and heat-pump sectors with regard to the implementation of the Kigali Amendment to the Montreal Protocol.

<sup>4</sup> Information regarding the emergency use of methyl bromide by Canada is also included in document UNEP/OzL.Pro.WG.1/42/2/Add.1, paras. 36 and 37.

17. Although the issue is not included in the agenda of the online Thirty-Second Meeting of the Parties, given the interest of the parties in the matter, the Technology and Economic Assessment Panel will prepare the requested report by October 2020, as originally expected. The report will be posted on the portal of the forty-third meeting of the Open-ended Working Group, scheduled to be held in July 2021. The key points of the report will be summarized in a note by the Secretariat on issues for discussion by and information for the attention of the forty-third meeting of the Open-ended Working Group. The note will also include the executive summary of the report by the Panel and will be made available to the parties in the six official languages of the United Nations in November 2020. The issue of energy efficiency will be included in the agenda of the forty-third meeting of the Open-ended Working Group for consideration by the parties.

## **B. Unexpected emissions of trichlorofluoromethane (CFC-11)**

18. In decision XXX/3, on unexpected emissions of trichlorofluoromethane (CFC-11), parties requested the Scientific Assessment Panel to provide a final report on the unexpected increase of CFC-11 emissions, to be presented at the Thirty-Second Meeting of the Parties to the Montreal Protocol. The first draft of the report was completed by the Panel in February 2020 and it was subsequently revised in the light of more than 300 comments received during the peer review process.

19. In June 2020, the Co-Chairs of the Scientific Assessment Panel and the authors became aware of two important papers on CFC-11 emissions that were likely to be published towards the end of 2020. In order for the CFC-11 report to be as comprehensive, up to date and relevant as possible for discussion by the parties, the Co-Chairs of the Panel have requested the parties to allow them to delay publishing the CFC-11 report until early 2021, after the publication of those two expected papers.

20. Moreover, in decision XXXI/3, on unexpected emissions of CFC-11 and institutional processes to be enhanced to strengthen the effective implementation and enforcement of the Montreal Protocol, the parties requested the Technology and Economic Assessment Panel to provide an update to the information provided pursuant to paragraph 2 of decision XXX/3<sup>5</sup> and to provide a report thereon to the Thirty-Second Meeting of the Parties.

21. In view of the fact that the Technology and Economic Assessment Panel and its task force on the CFC-11 report have been working in coordination with the Scientific Assessment Panel, the Co-Chairs of the Technology and Economic Assessment Panel have also requested that the parties allow them a similar delay in publishing the report of the task force on CFC-11, with a view to ensuring that the work of the task force also takes into account any relevant new scientific findings and is consistent with the report of the Scientific Assessment Panel.

22. In the light of the above, the Secretariat communicated the above-mentioned requests by the Scientific Assessment Panel and the Technology and Economic Assessment Panel to the parties in August 2020. It is estimated that the two reports on CFC-11 that are to be produced by the panels will be completed and made available to the parties in the first quarter of 2021. The reports will be presented for consideration by the Open-ended Working Group at its forty-third meeting, in July 2021.

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<sup>5</sup> See [https://ozone.unep.org/system/files/documents/TEAP-TF-DecXXX-3-unexpected\\_CFC11\\_emissions-september2019.pdf](https://ozone.unep.org/system/files/documents/TEAP-TF-DecXXX-3-unexpected_CFC11_emissions-september2019.pdf).