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**Montreal Protocol  
on Substances that  
Deplete the Ozone Layer**

Distr.: General

29 March 2022

Original: English

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**Open-ended Working Group of the Parties  
to the Montreal Protocol on Substances  
that Deplete the Ozone Layer**  
**Forty-fourth meeting**  
Bangkok, 11–16 July 2022  
Items 3–16 of the provisional agenda\*\***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-fourth meeting****Note by the Secretariat****I. Introduction**

1. The present note provides an overview of the issues on the provisional agenda for the forty-fourth meeting of the Open-ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. Section II contains a summary of issues for discussion by the Open-ended Working Group. Section III contains information that will not be addressed by the Open-ended Working Group at its forty-fourth meeting but that is relevant to the Thirty-Fourth Meeting of the Parties in November 2022, regarding implementation of previous decisions by the parties or the provisions of the Montreal Protocol itself.

2. Further information on a number of items on the agenda will be provided in an addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1) once the relevant 2022 reports by the Technology and Economic Assessment Panel have been finalized (see para. 30 below). Reports of the Panel are anticipated for sub-item (a), on the report by the Technology and Economic Assessment Panel (decision XXXIII/5), of agenda item 6, on energy-efficient and low-global-warming-potential technologies, and for agenda item 8, on the Technology and Economic Assessment Panel 2022 report, and its sub-items. The addendum will contain summaries of the reports of the Panel on the relevant issues.

3. Issues not directly related to the implementation of the Montreal Protocol or decisions of the parties, but still of possible interest to the parties, will be addressed in an information note on issues that the Secretariat would like to bring to the attention of the parties (UNEP/OzL.Pro.WG.1/44/INF/2). That note will contain information on, among other matters, activities undertaken by the Secretariat, on its cooperation with and contributions to the work of the United Nations Environment Programme (UNEP) and other bodies and on the Secretariat's participation in relevant meetings since the issuance of document UNEP/OzL.Pro.33/INF/3 on 27 September 2021.

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\* Reissued for technical reasons (14 June 2022)

\*\* UNEP/OzL.Pro.WG.1/44/1.

## II. Summary of issues for discussion by the Open-ended Working Group at its forty-fourth meeting

### Agenda item 3

#### Replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol for the period 2021–2023

4. It had been expected that the parties would, in 2020, negotiate and adopt a decision on the replenishment of the Multilateral Fund for the period 2021–2023. Owing, however, to the exceptional circumstances related to the coronavirus disease (COVID-19) pandemic, which prevented face-to-face meetings, the parties were not able to discuss the matter and negotiate a decision. Accordingly, during the Thirty-Second Meeting of the Parties to the Montreal Protocol, which took place online in 2020, the parties, without setting a precedent, adopted decision XXXII/1, on the interim budget for the Multilateral Fund for the triennium 2021–2023. The parties decided to adopt an interim budget of \$268 million, prioritizing those funds for the year 2021 as part of the triennium 2021–2023, until such time as the parties adopted a final decision on replenishment, including a revised budget, for the triennium 2021–2023. This was on the understanding that the interim budget would be provided from anticipated contributions due to the Multilateral Fund and other sources for the triennium 2018–2020.

5. Also at the Thirty-Second Meeting of the Parties, the parties adopted decision XXXII/2, which authorized the Secretariat to organize an extraordinary meeting of the parties in 2021 to enable parties to take a decision on the replenishment of the Multilateral Fund for the triennium 2021–2023 if and when the circumstances related to the global pandemic permitted it. In 2021, however, the COVID-19 pandemic situation did not improve as expected, and the parties had to adopt yet another decision to update the interim budget approved in 2020 for the Multilateral Fund for the triennium 2021–2023.

6. In May 2021, ahead of the Thirty-Third Meeting of the Parties in October 2021, the parties held the Fourth Extraordinary Meeting of the Parties to address an urgent matter regarding the payment of national contributions to the Multilateral Fund by individual parties. At that extraordinary meeting, which took place online, parties adopted decision Ex.IV/1, on 2021 contributions to the Multilateral Fund for the triennium 2021–2023. In that decision, the parties adopted the level of indicative contributions for the parties listed in the decision, on an interim basis and in advance of a final decision by the Meeting of the Parties on a revised budget for the Multilateral Fund for the triennium 2021–2023. In the same decision, they agreed that any contributions by parties made in advance of a final decision on the revised budget for the Multilateral Fund for the triennium 2021–2023 would be without prejudice to the overall level of the replenishment or to the agreed level of contributions by parties.

7. Owing to the continuation of the COVID-19 pandemic in 2021, the Thirty-Third Meeting of the Parties was also held online. At that meeting, by decision XXXIII/1, on the updated interim budget for the Multilateral Fund for the triennium 2021–2023, the parties decided to adopt an updated interim budget of \$400 million until such time as the parties adopted a final decision on replenishment, including a revised budget for the triennium 2021–2023, on the understanding that the updated interim budget would be provided from contributions due to the Multilateral Fund and other sources for the triennium 2018–2020 and from contributions already made by parties in 2021. At the same meeting, the parties adopted decision XXXIII/2, on 2022 contributions to the Multilateral Fund for the triennium 2021–2023, in which they adopted the level of indicative contributions for 2022 for the parties listed in the table annexed to the decision, on an interim basis pending a final decision by the Meeting of the Parties on a revised budget for the Multilateral Fund for the triennium 2021–2023. In the same decision, the parties also decided that any contributions made by parties in advance of a final decision on the revised budget for the Multilateral Fund for the triennium 2021–2023 would be without prejudice to the overall level of the replenishment or to the agreed level of contributions by parties.

8. In decision XXXIII/3, on an extraordinary meeting of the parties in 2022, the parties authorized the Secretariat to organize such a meeting, if and when the circumstances related to the pandemic permitted it, to enable parties to take a decision on the replenishment of the Multilateral Fund for the triennium 2021–2023. The Fifth Extraordinary Meeting of the Parties is due to take place in Bangkok, in the afternoon of 16 July 2022, back to back with the forty-fourth meeting of the Open-ended Working Group, which is planned for 11–16 July 2022, for the purpose of adopting a final decision on the replenishment of the Multilateral Fund for the triennium 2021–2023. Further information is contained in document UNEP/OzL.Pro.ExMOP.5/2.

9. The initial report by the Technology and Economic Assessment Panel on the assessment of the funding requirement for the replenishment of the Multilateral Fund for the period 2021–2023 was issued as volume 3 of the May 2020 report of the Panel. Taking into consideration the guidance provided by the parties during the forty-third meeting of the Open-ended Working Group in May 2021, the May 2020 report was updated, in September 2021, as a basis for the replenishment discussion and negotiation. The guidance provided to the Panel is set out in the annex to the report of the forty-third meeting of the Open-ended Working Group (UNEP/OzL.Pro.WG.1/43/4). The Panel presented the updated report in an online briefing that was held on 18 October 2021 as an integral part of the combined twelfth meeting (part II) of the Conference of the Parties to the Vienna Convention for the Protection of the Ozone Layer and the Thirty-Third Meeting of the Parties to the Montreal Protocol. A report of the briefing meeting is set out in annex I to the report of that meeting (UNEP/OzL.Conv.12(II)/9–UNEP/OzL.Pro.33/8), and a summary of the September 2021 report of the Technology and Economic Assessment Panel can be found in addendum 1 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 at its twelfth meeting and the Thirty-Third Meeting of the Parties to the Montreal Protocol (UNEP/OzL.Conv.12(II)/2/Add.1–UNEP/OzL.Pro.33/2/Add.1).

10. The Open-ended Working Group may wish to consider matters related to the replenishment of the Multilateral Fund for the triennium 2021–2023 and to make appropriate recommendations for decisions to be taken by the Fifth Extraordinary Meeting of the Parties.

11. In addition, when considering the contributions to be made for the replenishment period, parties may wish to address the issue of the potential extension of the fixed-exchange-rate mechanism in order that it be applied to the calculation of the level of contributions to be decided for the period 2021–2023. Information on the scale of assessments, rates of exchange and average inflation rates for contributions by parties to the 2021–2023 replenishment can be found in document UNEP/OzL.Pro.WG.1/44/INF/3.

12. The Open-ended Working Group may wish to discuss and agree on the replenishment issues. As a placeholder, draft text on which decisions on the replenishment and on the fixed-exchange-rate mechanism could be based can be found in annex I to the present note. Agreed draft decisions may be forwarded to the Fifth Extraordinary Meeting of the Parties for consideration for adoption.

#### **Agenda item 4**

#### **Identification of gaps in the global coverage of atmospheric monitoring of controlled substances and options for enhancing such monitoring (decision XXXIII/4)**

13. In decision XXXIII/4, on enhancing the global and regional atmospheric monitoring of substances controlled by the Montreal Protocol, the parties requested the Ozone Secretariat, in consultation with relevant experts from the Scientific Assessment Panel, the Technology and Economic Assessment Panel and the Ozone Research Managers, to provide a progress report on the following information to the parties at the forty-fourth meeting of the Open-ended Working Group and a final report in 2023:

(a) Options for the regional monitoring of atmospheric concentrations of substances controlled by the Montreal Protocol, based on the existing information provided by the Scientific Assessment Panel and the Ozone Research Managers, and the challenges for operationalizing relevant recommendations;

(b) The identification of suitable locations for possible high-frequency measurements and flask sampling for regions not, or not sufficiently, covered by existing atmospheric monitoring, with a view to strengthening monitoring capacity and networks;

(c) Options for possible means of establishing new monitoring capacity and related costs, taking into account existing monitoring infrastructure.

14. Also at the Thirty-Third Meeting of the Parties, a representative of the European Union informed the meeting that that party was funding a pilot project of the Ozone Secretariat entitled “Regional quantification of emissions of substances controlled under the Montreal Protocol”. The project was developed in 2021 on the basis of a white paper<sup>†</sup> entitled “Closing the gaps in top-down regional emissions quantification: needs and action plan” that had been prepared by the Scientific Assessment Panel in cooperation with experts in atmospheric monitoring for consideration by the

<sup>†</sup> UNEP/OzL/Conv.ResMgr/11/4/Rev.2.

Ozone Research Managers at their eleventh meeting, which was held online in two parts in October 2020 and July 2021. The implementation of the pilot project is overseen by a steering committee that was established in November 2021.

15. On 16 March 2022, the steering committee of the pilot project organized a virtual discussion forum in which it presented information and encouraged discussion of ideas related to the development of an improved monitoring network that could in the long term identify and quantify emissions of substances controlled under the Montreal Protocol.

16. More information on the progress made in relation to this issue will be summarized in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1). The Open-ended Working Group may wish to consider the relevant information summarized in that addendum and to make any appropriate recommendations.

## **Agenda item 5**

### **Institutional processes to strengthen the effective implementation and enforcement of the Montreal Protocol (UNEP/OzL.Pro.31/9, para. 170)**

17. At the Thirty-First Meeting of the Parties, the President of the Implementation Committee under the Non-Compliance Procedure for the Montreal Protocol reported that, at its sixty-third meeting, the Committee had considered documents prepared by the Secretariat, at the Committee's request, on possible ways of dealing with illegal production of and illegal trade in controlled substances under the Montreal Protocol. The documents contained information on existing arrangements under the Protocol, including tools under the Protocol itself and under the Multilateral Fund, and on issues not addressed as compliance issues (including illegal production, consumption and trade and polyols); reporting, monitoring, verification and implementation review; the functions and membership of the Implementation Committee; means of triggering the non-compliance procedure; decision-making and the consequences of non-compliance; and the role of the Secretariat. Related challenges and ideas for improvements were also included. The Secretariat had also prepared a brief comparative overview of arrangements under other legal regimes, including multilateral environmental agreements, covering reporting, monitoring, verification and implementation review; the functions and membership of bodies dealing with non-compliance procedures; means of triggering non-compliance procedures; decision-making and the consequences of non-compliance; and the role of the relevant secretariat.

18. The Committee had agreed that the information provided by the Secretariat was relevant for all parties, and the report had therefore been annexed to the report of the sixty-third meeting of the Implementation Committee (UNEP/OzL.Pro/ImpCom/63/6). The Committee recommended to the Thirty-First Meeting of the Parties that the matter be included on the agenda of the forty-second meeting of the Open-ended Working Group.

19. However, given the significantly reduced agendas for both the forty-second and forty-third meetings of the Open-ended Working Group, owing to the exceptional circumstances caused by the COVID-19 pandemic, the matter could not be considered at either meeting.

20. The Open-ended Working Group may wish to discuss the issue and make any appropriate recommendations on the matter.

## **Agenda item 6**

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

#### **(a) Report by the Technology and Economic Assessment Panel (decision XXXIII/5)**

21. By decision XXXIII/5, on the continued provision of information on energy-efficient and low-global-warming-potential technologies, the parties requested the Technology and Economic Assessment Panel to prepare a report, on energy-efficient and lower-global-warming-potential technologies and on measures to enhance and maintain energy efficiency during hydrofluorocarbon transition in equipment, for consideration by the Open-ended Working Group at its forty-fourth meeting. In the report, the Panel was requested (a) to update information in the report of the Panel in response to decision XXXI/7, on the same subject, where relevant, and to address additional subsectors not previously covered such as the heat-pump, large commercial refrigeration and larger air-conditioning system subsectors; (b) to assess potential cost savings associated with adoption of lower-global-warming-potential energy-efficient technologies in each sector; (c) to identify sectors where actions could be taken in the short term to adopt energy-efficient technologies while phasing

down hydrofluorocarbons; (d) to identify options to enhance and maintain energy efficiency in equipment through deploying best practices during installation, servicing, maintenance, refurbishment or repair; and (e) to provide detailed information on how the benefits of integrating energy efficiency enhancements with the hydrofluorocarbon phase-down measures could be assessed.

22. The report by the Panel will be summarized in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1). It will be posted in the online forum to allow parties to submit comments and questions about the report prior to the meeting.

**(b) Dumping of new and old inefficient refrigeration and air-conditioning appliances (proposal by the African Group) (UNEP/OzL.Conv.12(II)/9–UNEP/OzL.Pro.33/8, para. 82)**

23. At the Thirty-Third Meeting of the Parties to the Montreal Protocol the group of African States parties to the Protocol proposed a draft decision on stopping environmentally harmful dumping of inefficient refrigerant and air-conditioning appliances using obsolete refrigerants. The rationale for the proposal, which appears in annex II to the present note, was that dumping increased the hydrofluorocarbon baseline of parties operating under paragraph 1 of Article 5 of the Protocol (Article 5 parties); increased the use of hydrofluorocarbons and hydrochlorofluorocarbons in servicing; and made compliance with the Kigali Amendment to the Montreal Protocol more difficult. Dumping was burdensome both to Article 5 parties as it increased the costs and air pollution associated with energy inefficiency and to parties not operating under paragraph 1 of Article 5 of the Protocol (non-Article 5 parties) as it led to higher Multilateral Fund replenishment costs. The proposed decision reflected a real problem that merited the respect of other parties and their immediate attention and cooperation.

24. In the ensuing discussion, the parties agreed to put the matter on the agenda of their next in-person meeting to allow for in-depth exploration of the challenges underlying the proposal and of action that could be taken under the Montreal Protocol to address those challenges.

25. The Open-ended Working Group may wish to discuss the issue and make any appropriate recommendations on the way forward. The proposal by the group of African States submitted to the Thirty-Third Meeting of the Parties is contained in annex II to the present note.

## **Agenda item 7**

### **Terms of reference for a study on the replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol for the period 2024–2026**

26. Since 1990, the Multilateral Fund has operated on the basis of a three-year funding cycle, and, accordingly, the parties have adopted decisions on the replenishment of the fund in 1993, 1996, 1999, 2002, 2005, 2008, 2011, 2014 and 2017. Although parties were expecting to take a decision in 2020 on the replenishment for the period 2021–2023, that decision has yet to be made owing to the COVID-19 pandemic that prevailed in 2020 and 2021, preventing in-person meetings and thus the conduct of proper negotiations. In 2020 and 2021, therefore, the parties took decisions XXXII/1 and XXXIII/1, respectively, on the interim budget/updated interim budget for the Multilateral Fund for the triennium 2021–2023. This year, parties are expected to take a final decision on the replenishment for that period.

27. It has been the custom that, in the year preceding the final year of each funding cycle, parties develop terms of reference for a study designed to estimate the funds necessary to enable parties to achieve compliance with the provisions of the Protocol during the forthcoming replenishment period. In 2022, therefore, the parties may wish to consider the terms of reference for a study on the funding requirements for the replenishment period 2024–2026.

28. For the parties' convenience, decision XXXI/1, on the terms of reference for the study on the 2021–2023 replenishment of the Multilateral Fund, which was adopted by the parties in 2019 for the study conducted in 2020, is set out in annex III to the present note. Traditionally, the parties have requested the Technology and Economic Assessment Panel to carry out the replenishment study, and the Panel has established task forces to that end.

29. The Open-ended Working Group may wish to consider matters related to a study on the replenishment of the Multilateral Fund for the triennium 2024–2026 and to forward their views to the Thirty-Fourth Meeting of the Parties for its deliberation and action.

## Agenda item 8

### Technology and Economic Assessment Panel 2022 report

30. The following volumes of the Technology and Economic Assessment Panel 2022 report are expected to be issued in May 2022:

Volume 1: Technology and Economic Assessment Panel 2022 progress report

Volume 2: Evaluation of 2022 critical-use nominations for methyl bromide – interim report

Volume 3: Decision XXXIII/5 task force report on energy-efficient and low-global-warming-potential technologies

31. When the reports become available, they will be posted in the online forum for the forty-fourth meeting to allow parties to provide comments and ask questions through the forum in advance of the meeting.

32. Under agenda item 8, the Panel will present volumes 1 and 2 of its 2022 report, in relation to sub-items (a), (b) and (c):

(a) Nominations for critical-use exemptions for methyl bromide for 2023 and 2024;

(b) Future availability of halons and their alternatives (decision XXX/7);

(c) Panel membership changes;

(d) Any other issues.

33. The information and recommendations of the Panel relevant to sub-items (a), (b) and (c), as well as key findings and messages relating to other issues that the Panel brings to the attention of the parties, will be summarized in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1).

#### (a) Nominations for critical-use exemptions for methyl bromide for 2023 and 2024

34. In 2022, one Article 5 party (South Africa) submitted one nomination for a critical-use exemption for 2023, and two non-Article 5 parties (Australia and Canada) submitted one nomination each, for 2024 and 2023, respectively.

35. During its meeting to be held virtually from 4 to 8 April 2022, the Methyl Bromide Technical Options Committee will review, among other things, the critical-use nominations and additional information submitted by the nominating parties, including the responses to the first round of questions addressed to one such party. The interim recommendations on the quantities of methyl bromide eligible for exemption will be included in the report of the Committee, to be made available in volume 2 of the 2022 report of the Technology and Economic Assessment Panel. The recommendations, which are expected to be finalized in mid-May 2022, will be summarized in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1) for the consideration of the Open-ended Working Group. The report will also be posted in the online forum to allow parties to comment on and raise questions about the report prior to the meeting.

#### (b) Future availability of halons and their alternatives (decision XXX/7)

36. At the Thirtieth Meeting of the Parties in November 2018, the parties adopted decision XXX/7, on the future availability of halons and their alternatives, in which they requested that the Ozone Secretariat liaise with the secretariat of the International Maritime Organization (IMO) in order to facilitate the exchange of information between relevant technical experts regarding halon availability. The Secretariat did so in December 2018, and, in response, the IMO secretariat assigned one of its experts to serve as a focal point in support of the implementation of the decision. The co-chairs of the Halons Technical Options Committee were informed accordingly.

37. In the same decision, parties requested that the Technology and Economic Assessment Panel, through its Halons Technical Options Committee, (a) continue engaging with IMO and the International Civil Aviation Organization, consistent with paragraph 4 of decision XXVI/7, on the availability of recovered, recycled or reclaimed halons, and with paragraph 1 of decision XXIX/8, on the future availability of halons and their alternatives, to better assess future amounts of halons available to support civil aviation and to identify relevant alternatives already available or in development; (b) identify ways to enhance the recovery of halons from the breaking of ships; and (c) identify specific needs for halon, other sources of recoverable halon and opportunities for recycling halon in Article 5 parties and non-Article 5 parties. The Panel was also requested to submit a report on halon availability to the parties in advance of the forty-second meeting of the Open-ended Working

Group. The Technology and Economic Assessment Panel and its Halons Technical Options Committee provided the requested report in volume 1 of the Panel's May 2020 report.<sup>‡</sup>

38. Owing to the COVID-19 pandemic, the parties were unable, in 2020 and 2021, to consider the issues of the future availability of halons and their alternatives. The Technology and Economic Assessment Panel and its Halons Technical Options Committee, however, provided an update of its response to decision XXX/7 in the progress report issued as volume 1 of the Panel's 2021 report.<sup>§</sup> The Panel and the Technical Options Committee are expected to provide further updates in volume 1 of the Panel's 2022 report. A summary of the 2022, updated report will be provided in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1) for consideration by the Open-ended Working Group.

**(c) Panel membership changes**

39. Volume 1 of the 2022 report of the Technology and Economic Assessment Panel (the progress report) is expected to contain information on the membership of the Technology and Economic Assessment Panel and its technical options committees, including the term of appointment of each member; the expertise available in each committee; and the matrix of needed expertise of the Panel and its technical options committees. As requested in decision XXXI/8, on the terms of reference of the Technology and Economic Assessment Panel and its technical options committees and temporary subsidiary bodies – procedures relevant to nominations, the Panel is expected to provide, in its 2022 report, a summary outlining the procedures that the Panel and its technical options committees have undertaken to ensure adherence to the Panel's terms of reference through clear and transparent procedures.

40. Information about changes in membership of the Technology and Economic Assessment Panel will be summarized in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1) for consideration by the Open-ended Working Group.

**(d) Any other issues**

41. Volume 1 of the 2022 report of the Technology and Economic Assessment Panel (the progress report) is expected to contain information and key messages on various other issues, including organizational and administrative matters related to the Panel and its technical options committees. The Secretariat will summarize in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1) important issues raised by the Panel that may require the attention of the parties.

42. Parties will also have the opportunity to provide comments on the progress report through the online forum. Any party wishing to raise any other issues related to the Panel's progress report for discussion at the upcoming meeting is requested to include those issues in its comments in the online forum and to request the inclusion of the issues on the agenda of the forty-fourth meeting at the time of its adoption at the meeting itself.

**Agenda item 9**

**Strengthening the Technology and Economic Assessment Panel and its technical options committees for the phase-down of hydrofluorocarbons and other future challenges related to the Montreal Protocol and the climate (proposal by Morocco) (UNEP/OzL.Conv.12(I)/6–UNEP/OzL.Pro.32/8, para. 15)**

43. At the combined twelfth meeting (part I) of the Conference of the Parties to the Vienna Convention and the Thirty-Second Meeting of the Parties to the Montreal Protocol, the representative of Morocco introduced, for consideration by the Thirty-Second Meeting of the Parties, a draft decision, set out in a conference room paper, on strengthening the Technology and Economic Assessment Panel and its technical options committees for the phase-down of hydrofluorocarbons and other future challenges related to the Montreal Protocol and the climate. In the ensuing discussion, it was stressed that the paper raised important issues requiring careful thought, but time at that meeting was limited. The parties agreed to defer consideration of the matter to 2021. The representative of

<sup>‡</sup> Volume 1 of the May 2020 report of the Technology and Economic Assessment Panel is available at <https://ozone.unep.org/system/files/documents/TEAP-Progress-report-and-response-decXXXI-8-may2020.pdf>.

<sup>§</sup> Volume 1 of the September 2021 report of the Technology and Economic Assessment Panel is available at <https://ozone.unep.org/system/files/documents/TEAP-2021-Progress-report.pdf>.

Morocco said that the matter should be the subject of a stand-alone item on the agenda of the meeting at which it was to be discussed. Owing to the exceptional circumstances brought about by the COVID-19 pandemic, the matter was not discussed by the parties in 2021. The proposal by Morocco is contained in annex IV to the present note for discussion at the forty-fourth meeting.

44. Any information related to the reorganization of the Technology and Economic Assessment Panel included by the Panel in its progress report will be summarized in the addendum to the present note (UNEP/OzL.Pro.WG.1/44/2/Add.1).

45. The Open-ended Working Group may wish to discuss the matter and develop a way forward.

### **Agenda item 10**

#### **Stocks of methyl bromide (UNEP/OzL.Pro.31/9, para. 100) and quarantine and pre-shipment uses (UNEP/OzL.Conv.12(II)/9–UNEP/OzL.Pro.33/8, para. 56)**

46. At the forty-first meeting of the Open-ended Working Group in 2019, the European Union introduced a conference room paper, co-sponsored by Norway, containing a proposal that parties be invited to provide information on their stocks of methyl bromide and that the Technology and Economic Assessment Panel be requested to clarify the distinction between exempted and controlled uses of the chemical. After discussions in an informal group, the Open-ended Working Group agreed to defer further consideration of the item to the Thirty-First Meeting of the Parties. At that meeting, a representative of the European Union, speaking on behalf of a group of countries, introduced a draft decision on the reporting of stocks of methyl bromide, on a voluntary basis, to facilitate the work of the Technology and Economic Assessment Panel. Parties held informal consultations on the draft decision but, owing to insufficient time, consensus could not be reached. The proponent requested that the item be included on the agenda of the forty-second meeting of the Open-ended Working Group in 2020. The issue was not discussed at that meeting, however, owing to the agenda of the meeting being reduced on account of the circumstances brought about by the COVID-19 pandemic.

47. At the Thirty-Third Meeting of the Parties, during the discussion on the critical-use nominations, one representative, speaking on behalf of a group of countries, said that it was pleasing to see an overall decline in the number of nominations submitted. It was nevertheless clear that challenges remained. Recalling that the Methyl Bromide Technical Options Committee had identified opportunities for replacing 30 to 40 per cent of quarantine and pre-shipment uses of methyl bromide with immediately available alternatives, he requested that consideration of the issue be placed on the agenda of the subsequent meeting of the Open-ended Working Group.

48. The Open-ended Working Group may wish to discuss the issues and develop a way forward.

### **Agenda item 11**

#### **Ongoing emissions of carbon tetrachloride (UNEP/OzL.Pro.31/9, para. 81)**

49. The issue of carbon tetrachloride emissions was discussed at the forty-first meeting of the Open-ended Working Group as a result of the findings on carbon tetrachloride emissions and their sources that had been presented to the Thirtieth Meeting of the Parties by the Scientific Assessment Panel as part of the 2018 quadrennial assessment. The report had included new findings that contributed to reducing the discrepancy between the top-down and bottom-up estimates of emission levels and to a better understanding of emission sources. Discussions at the forty-first meeting highlighted the need to address the issue, along with the linkages with the issues of trichlorofluoromethane (CFC-11) emissions and feedstock uses of carbon tetrachloride and its unregulated industrial emissions. Suggested actions included extended atmospheric monitoring, mitigation measures for emission sources and relevant research, with guidance from the assessment panels. There was also discussion, in plenary and in a contact group, of a proposal introduced by Switzerland containing a list of possible actions. Agreement thereon was not reached, and the draft decision was forwarded to the Thirty-First Meeting of the Parties.

50. At the Thirty-First Meeting of the Parties, the discussions continued in an informal group, but no agreement was reached. The representative of Switzerland requested, and the parties agreed on, the inclusion of the item on the agenda of the subsequent meeting of the Open-ended Working Group, in 2020. He suggested that interested parties with any production or consumption of carbon tetrachloride might wish to gather the following information on their domestic industrial processes as a basis for further discussion of what information might be needed to address the issue of carbon tetrachloride emissions: the locations where such processes took place and the transport chains between them; the

volumes of substances that were part of the production and consumption chain of carbon tetrachloride; and the monitoring arrangements in place for the surveillance of substance flows and/or emissions.

51. The parties were unable, however, to consider the issue in 2020 and 2021 owing to the circumstances brought about by the COVID-19 pandemic.

52. The Open-ended Working Group may wish to discuss the issue and propose a way forward.

## **Agenda item 12**

### **Membership of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol (UNEP/OzL.Pro.31/9, para. 147)**

53. At the forty-first meeting of the Open-ended Working Group, Armenia and Bosnia and Herzegovina submitted, on behalf of parties in Eastern Europe and Central Asia, a proposal for a draft decision to augment the membership of the Executive Committee of the Multilateral Fund by one additional member from an Article 5 party and one additional member from a non-Article 5 party, with Eastern Europe and Central Asia being given a permanent seat among the membership from Article 5 parties. This aimed to modify the arrangement, based on a four-year rotation, that had been adopted in decision XVI/38, on the need to ensure equitable geographical representation in the Executive Committee of the Multilateral Fund. The proponents stressed the equal right of all regions to participate in the work of the Executive Committee. The informal group established to discuss the draft decision could not reach agreement thereon, and the draft decision was forwarded to the Thirty-First Meeting of the Parties.

54. At the Thirty-First Meeting of the Parties, the draft decision on the matter was discussed again. Several representatives raised concerns regarding the characterization of the issue. Some of the points made were that certain parties were reluctant to change the existing structure of the Executive Committee; that the composition of the Executive Committee was based on geographical representation and worked in line with United Nations principles of equity and justice; and that Eastern Europe and Central Asia was not a United Nations regional group.

55. Given that no consensus could be reached among the parties on the issue itself or on the establishment of a contact group on the matter, parties agreed to defer further discussion of the matter to the forty-second meeting of the Open-ended Working Group in 2020. The issue could not be discussed at that meeting, however, owing to its agenda being reduced on account of the circumstances brought about by the COVID-19 pandemic.

56. The Open-ended Working Group may wish to discuss the matter further and recommend a way forward.

## **Agenda item 13**

### **Mario Molina declaration on supporting and strengthening the Montreal Protocol (proposal by Mexico) (UNEP/OzL.Conv.12(I)/6–UNEP/OzL.Pro.32/8, para. 16)**

57. At the combined twelfth meeting (part I) of the Conference of the Parties to the Vienna Convention and Thirty-Second Meeting of the Parties to the Montreal Protocol, the representative of Mexico said that he had submitted to the Secretariat a proposal for a “Mario Molina declaration to support and strengthen the Montreal Protocol” for consideration and possible adoption by the parties. The parties agreed to defer consideration of the proposed declaration until 2021 owing to the streamlined nature of the Third-Second Meeting of the Parties, which, in the light of the COVID-19 pandemic, aimed to deal with only the most important and urgent matters, which had been agreed well ahead of the meeting through informal consultation among the parties. The parties were unable, however, to consider the issue in 2021 owing to the continuing impact of the COVID-19 pandemic.

58. It is expected that Mexico will resubmit the proposal for consideration at the upcoming meeting. When the proposal is received by the Secretariat, it will be posted in the online forum to allow parties to review it and provide comments and feedback on it prior to the meeting.

59. The Open-ended Working Group may wish to discuss the issue and propose a way forward.

### **III. Issues that are relevant to the Thirty-Fourth Meeting of the Parties, including updates on the implementation of previous decisions**

#### **A. Periodic review on alternatives to hydrofluorocarbons (decision XXVIII/2, para. 4)**

60. The Twenty-Eighth Meeting of the Parties, held in October 2016, adopted decision XXVIII/2, on the decision related to the amendment phasing down hydrofluorocarbons (the Kigali Amendment). In paragraph 4 of that decision, the Technology and Economic Assessment Panel was requested to conduct, in 2022 and every five years thereafter, periodic reviews of alternatives, using the criteria set out in paragraph 1 (a) of decision XXVI/9, on the response to the report by the Panel on information on alternatives to ozone-depleting substances, and to provide technological and economic assessments of the latest available and emerging alternatives to hydrofluorocarbons.

61. According to paragraph 1 (a) of decision XXVI/9, updated information on alternatives\*\* was to be provided in various sectors and subsectors, differentiating between Article 5 and non-Article 5 parties, considering energy efficiency, regional differences and high-ambient-temperature conditions. Identified alternatives were also to be assessed against a set of criteria, namely, whether those alternatives were (a) commercially available; (b) technically proven; (c) environmentally sound; (d) economically viable and cost-effective; (e) safe to use in areas with high urban densities considering flammability and toxicity issues, including, where possible, risk characterization; and (f) easy to service and maintain.

62. Furthermore, the assessment was to describe the potential limitations of use of identified alternatives and their implications for the different sectors, in terms of, but not limited to, servicing and maintenance requirements and international design and safety standards.

63. In response to decision XXVIII/2, the Technology and Economic Assessment Panel is expected to provide the review requested for 2022 in time for its consideration by the Thirty-Fourth Meeting of the Parties later in 2022.

#### **B. Establishment of regular consultations on safety standards (decision XXVIII/4)**

64. In decision XXIX/11, on safety standards, adopted by the Twenty-Ninth Meeting of the Parties in 2017, the Secretariat was requested to hold regular consultations, on safety standards for flammable low-global-warming-potential refrigerants, with international and regional standards bodies, with a view to providing a tabular overview of such safety standards. The tabular overview was also to include any relevant information submitted on a voluntary basis to the Secretariat by parties or by national and regional standards bodies.

65. In paragraph 4 of decision XXIX/11, the Secretariat was requested to make such information accessible on its website and to ensure an update of the tabular overview at least prior to each meeting of the parties up until the Thirty-Fourth Meeting of the Parties, when parties should consider whether to renew that request to the Secretariat.

66. In response, the Secretariat produced a first version of the requested tabular overview in November 2018, followed by an updated version in July 2019. To facilitate access to updated information on safety standards, however, the Secretariat developed an interactive online tool on safety standards systems, available on its website.†† The information included in the tool is presented in a format similar to the tabular overview; it also offers filtering and search functions to enable the extraction of specific information and functions for exporting and downloading data fields. The Secretariat has been updating the online tool regularly and will include the latest updates on safety standards prior to the Thirty-Fourth Meeting of the Parties later in 2022.

\*\* Paragraph 1 (a) of decision XXVI/9 referred to alternatives to ozone-depleting substances. In the context of decision XXVIII/2, such a reference applies to alternatives to hydrofluorocarbons.

†† The system safety standards tool is available at <https://ozone.unep.org/system-safety-standards>.

## Annex I

### A. [Decision XXXIV/[A]: Replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol for the triennium 2021–2023

1. To adopt a budget for the Multilateral Fund for the Implementation of the Montreal Protocol for the triennium 2021–2023 of \$....., on the understanding that \$..... of that budget will be provided from anticipated contributions due to the Multilateral Fund and other sources for the triennium 2018–2020 and that \$..... will be provided from interest accruing to the Fund during the triennium 2021–2023. The parties note that outstanding contributions from parties with economies in transition in the period 2018–2020 amount to \$.....;
2. Also to adopt the scale of contributions for the Multilateral Fund based on a replenishment of \$..... for 2021, \$..... for 2022 and \$..... for 2023, as it appears in annex [--] to the report of the Fifth Extraordinary Meeting of the Parties to the Montreal Protocol;
3. That the Executive Committee should take action to ensure, to the extent possible, that the entire budget for the triennium 2021–2023 is committed by the end of 2023, and that parties not operating under paragraph 1 of Article 5 should make timely payments in accordance with paragraph 7 of decision XI/6.]

### B. [Decision XXXIV/[B]: Extension of the fixed-exchange-rate mechanism to the 2021–2023 replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol

4. To direct the Treasurer to extend the fixed-exchange-rate mechanism to the period 2021–2023;
5. That parties choosing to pay their contributions to the Multilateral Fund for the Implementation of the Montreal Protocol in national currencies will calculate their contributions on the basis of the average United Nations exchange rate for the [six-month period commencing 1 January 2020];\*
6. That, subject to paragraph 4 below, parties not choosing to pay in national currencies pursuant to the fixed-exchange-rate mechanism will continue to pay in United States dollars;
7. That no party should change the currency selected for its contribution during the triennium 2021–2023;
8. That only parties with inflation rate fluctuations of less than 10 per cent for the preceding triennium, pursuant to published figures of the International Monetary Fund, will be eligible to use the fixed-exchange-rate mechanism;
9. To urge parties to pay their contributions to the Multilateral Fund in full and as early as possible in accordance with paragraph 7 of decision XI/6;
10. To agree that, if the fixed-exchange-rate mechanism is to be used for the replenishment period 2024–2026, parties choosing to pay their contributions in national currencies will calculate their contributions on the basis of the average United Nations exchange rate for the six-month period commencing 1 January 2023.]

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\* In the decision on the extension of the fixed-exchange-rate mechanism to the 2018–2020 replenishment of the Multilateral Fund (decision XXIX/2), it was agreed that the average United Nations exchange rate over the six-month period starting on 1 January 2017 would be used for the calculation.

## Annex II

### Proposal by Ghana on behalf of the African States parties to the Montreal Protocol

**Objective:** Positively influence collaborative efforts of Montreal Protocol Parties to stop environmentally harmful dumping of inefficient refrigerant and air conditioning appliances using obsolete refrigerants

**Updated submission by:** Ghana on behalf of African states parties to the Montreal Protocol

#### *Stop the Harmful Dumping of New and Used, Inefficient Refrigeration and Air Conditioning Appliances Using Obsolete ODS and HFC Refrigerants*

*The Parties to the Montreal Protocol,*

*Noting with concern* the increasing numbers of new and used appliances that are not acceptable for sale in countries of origin and that are exported to African and other developing countries that may have less stringent laws or enforcement systems that are being overwhelmed with such dumping;

*Aware* that dumping of inefficient appliances causes importing countries harm by, *inter alia*, creating or prolonging dependence on obsolete refrigerants that are increasingly expensive and unavailable; flooding markets with poor quality equipment; stressing over-burdened energy grids and perpetuating elevated energy demand; aggravating air pollution and climate change from avoidable electricity consumption; increasing non-recyclable refuse; and damaging the quality of life of low-income consumers with unaffordable electricity costs;

*Recognizing* that Ghana and other Article 5 Parties in Africa and elsewhere have worked hard to prevent this environmentally harmful dumping and to increase energy efficiency within their borders, but that countries working alone are never as effective as they are when working with the combined strength of the Montreal Protocol;

*Recalling* the [Report of the Technology and Economic Assessment Panel, September 2020, Decision XXXI/7– Continued Provision of Information on Energy-Efficient and Low-GWP Technologies](#) (Volume 2), which *inter alia* recognizes studies documenting widespread dumping of new and used refrigeration and air conditioning equipment that is inefficient in energy use and utilizing obsolete ODS and HFC refrigerants scheduled for phase out and phase down, respectively, under the Montreal Protocol;

*Further recalling* [Decision X/9](#), which establishes a list of countries that do not manufacture for domestic use and do not wish to import products and equipment whose continuing functioning relies on Annex A and Annex B substances, and which noted *inter alia* that “in order for...export measures to be effective, both importing and exporting parties need to take appropriate steps;”

*Further recalling* [Decision XIX/12](#), which stressed the need for action to prevent and minimize illegal trade in controlled ozone-depleting substances, and recognizing, *inter alia*, the importance of measures that promote information sharing among Parties, such as Project Sky Hole Patching’s, informal prior informed consent (iPIC) procedure, or similar systems, implemented with certain regional parties and the Regional Intelligence Liaison Office of the World Customs Organization;

*Further recalling* [Decision XXVII/8](#), which invited those parties that do not permit the importation of products and equipment containing or relying on hydrochlorofluorocarbons from any source to inform the Secretariat that they do not consent to the importation of such products and equipment, and requesting the Secretariat to maintain a list of such parties, to be distributed to all parties by the Secretariat and updated on an annual basis;

*Also recognizing* that multiple decisions of the Montreal Protocol, including Decision XIX/6, and XXIII/2, have highlighted the importance of promoting the use of alternatives that minimize environmental impacts, including on the climate, taking into account global warming potential (GWP).

*Recognizing* the common practice of trade controls and other measures to support compliance and stop illegal trade in ODSs under the Montreal Protocol;

*Acknowledging* that Parties to the Montreal Protocol have strengthened the partnership of Multilateral Environmental Agreements involved in the [Green Customs initiative](#) aimed at enhancing the capacity of customs and other relevant border control officers to monitor and facilitate the legal

trade and to detect and prevent illegal trade in environmentally sensitive commodities, including those within scope of the Montreal Protocol.

*Taking note of the [2019 African Ministerial Conference on the Environment, Decision 17/1](#), wherein the African ministers of the environment “urge Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer to adopt an action plan preventing market penetration of obsolete equipment in Africa while facilitating access to secure and energy-efficient technologies on the continent.”*

The Meeting of the Parties:

*Recommends* all Parties wanting to avoid imports of inefficient appliances containing obsolete ODSs and HFCs register their country with the UNEP OzonAction Informal Prior Informed Consent (iPIC) [platform](#);

*Requests* all Parties implement domestic legislation enforcing iPIC registration by importing countries;

*Invites* the Secretariat to update the iPIC platform to include the option for countries to designate upper GWP bounds and minimum energy efficiency, in line with the Kigali Amendment, that are acceptable for specific equipment categories;

*Requests* UNEP’s OzonAction and its Regional Offices in consultation with National Ozone Units to intensify training and coordination efforts, consistent with [Decision XVI/34](#) on cooperation between the Secretariat of the Montreal Protocol and other conventions and international organizations to stop unwanted dumping;

*Further requests* that the Technology and Economic Assessment Panel put forward a methodology and associated bibliography for estimating the integrated damage of the obsolete products traded today compared to the environmental performance required by law for products sold in countries of manufacture.

*Further request* that Parties consider the advantage of additional funding for national action plans to prevent dumping of obsolete equipment in A5 parties while facilitating access to affordable energy-efficient technologies to support early compliance with the HFC phase down.

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## Background Information:

### Draft decision to Stop the Harmful Dumping of New and Used, Inefficient Refrigeration and Air Conditioning Appliances Using Obsolete ODS and HFC Refrigerants

1. **Environmentally harmful product dumping (“environmental dumping”)** is defined as “the practice of exporting products to another country or territory that: 1) contain hazardous substances; 2) have environmental performance lower than is in the interest of consumers or that is contrary to the interests of the local and global commons; or 3) can undermine the ability of the importing country to fulfill international environmental treaty commitments.”<sup>1</sup>
2. **Environmentally dumping has a long history**, affecting developed and developing nations and their peoples, working in opposition to the effort countries expend to innovate and transform their technologies to protect their environment, human health, and sustainable economies built on those protections. Consider Africa’s experiences surrounding leaded

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<sup>1</sup> S. Andersen, R. Ferris, R. Piccolotti, D. Zaelke, S. Carvalho, & M. Gonzalez, *Defining the Legal and Policy Framework to Stop the Dumping of Environmentally Harmful Products*, DUKE ENV’T L. & POL’Y F, Fall 2018, (hereinafter *Environmental Dumping* 2018), p. 9, available at: <https://delpf.law.duke.edu/article/defining-the-legal-and-policy-framework-to-stop-the-dumping-of-environmentally-harmful-products-andersen-vol29-iss1/> (last accessed 14 April 2021). Although not a new phenomenon, this article, published in the Duke Environmental Law & Policy Forum, was the first to define this practice and present an initial set of law and policy “tools” to combat the practice.

gasoline phaseout,<sup>2</sup> used vehicles that do not meet modern vehicle emissions and safety standards,<sup>3</sup> obsolete information technology tools,<sup>4</sup> and the dumping of hazardous waste and chemicals.<sup>5</sup>

3. **The export of refrigeration and air conditioning equipment that cannot be legally sold in the country of export, or that is unusable in the country of export, is environmental dumping.** Environmental dumping of refrigeration and air conditioning equipment includes: “1) export of technology that cannot legally be sold in the country of export as a consequence of failure to meet environmental, safety, energy efficiency, or other product standards; and 2) export of technology that is unusable in the country of export because refrigerants are no longer available because of national regulation or phaseout and phasedown control schedules under the Montreal Protocol.”<sup>6</sup> To prevent environmental dumping, new or used refrigeration and air conditioning appliances must be energy efficient using sustainable refrigerants to achieve affordable low carbon footprint.
4. **Africa has experienced egregious harms, including from environmental dumping of refrigeration and air conditioning equipment.** Recent research documented that, of 650,000 new, low efficiency air conditioners sold in 10 African countries in 2018, 170,000 were imported products that did not meet the minimum energy efficiency standards and almost all contained obsolete refrigerants that are powerful ozone-depleting and greenhouse gases scheduled for phase out and phasedown under the Montreal Protocol.<sup>7</sup>
5. **Environmental dumping of obsolete products in countries and territories that can least afford related economic burdens creates a market for low-quality, bad-performance products that serve as barriers to introducing and selling higher-quality products.** In Ghana, as an example, the market for low-quality, bad-performance products has hindered our efforts to build the market for energy-efficient equipment.<sup>8</sup> Further, inefficient used appliances

<sup>2</sup> The LEAD Group, *Chronology of Leaded Gasoline / Leaded Petrol History* (23 December 2011) at pp. 4, 9, available at: [https://lead.org.au/Chronology-Making\\_Leaded\\_Petrol\\_History.pdf](https://lead.org.au/Chronology-Making_Leaded_Petrol_History.pdf) (last accessed 14 April 2021); see also UNEP, *Exporting Pollution: Dumping Dirty Fuels and Vehicles in Africa* (15 September 2016), available at: <https://www.unep.org/news-and-stories/story/exporting-pollution-dumping-dirty-fuels-and-vehicles-africa> (last accessed 14 April 2021).

<sup>3</sup> UNEP, *Used vehicles get a second life in Africa – but at what cost?* (26 October 2020) (referencing UNEP Global Trade in Used Vehicles Report), available at: <https://www.unep.org/news-and-stories/story/used-vehicles-get-second-life-africa-what-cost> (last accessed 14 April 2021); see also C. Ayitey, *American car giant, GM goes electric by 2035; a case for Ghana’s Kantanka Automobile* (12 February 2021) (“The Bloomberg New Energy Finance (BNEF) has predicted a green-energy renaissance of the entire global energy industry. It projects that electric cars in Europe and North America would be cheaper to buy and run than traditional vehicles by 2030. Amidst the fortunes of this renaissance, the trickle-down effect of dumping on Africa looms.”), available at: <https://www.myjoyonline.com/business/american-car-giant-gm-goes-electric-by-2035-a-case-for-ghanas-kantanka-automobile/> (last accessed 14 April 2021).

<sup>4</sup> UN News, *As e-waste mountains soar, UN urges smart technologies to protect health* (22 February 2010) (referencing the study “Recycling – from E-waste to Resources, launched at a meeting of hazardous wastes experts in Bali, Indonesia, [that] predict[ed] that by 2020 e-waste from old computers will have jumped by 500 per cent from 2007 levels in India, and by 200 to 400 per cent in South Africa and China, while that from old mobile phones will be 7 times higher in China and 18 times higher in India.”), available at: <https://news.un.org/en/story/2010/02/330172-e-waste-mountains-soar-un-urges-smart-technologies-protect-health> (last accessed 14 April 2021).

<sup>5</sup> See, for example, UNEP, *History of the negotiations of the Basel Convention*, available at: <http://www.basel.int/TheConvention/Overview/History/Overview/tabid/3405/Default.aspx> (last accessed 14 April 2021).

<sup>6</sup> *Environmental Dumping* 2018, pp. 9–10; see also P. Fleming, *A Flood of Polluting Air Conditioners Hampers Africa’s Climate Efforts*, Yale Environment 360 (9 September 2020), available at: <https://e360.yale.edu/features/a-flood-of-polluting-air-conditioners-hampers-africas-climate-efforts> (last accessed 14 April 2021).

<sup>7</sup> CLASP, *Environmentally Harmful Dumping of Inefficient and Obsolete Air Conditioners in Africa* (24 June 2020), available at: <https://www.clasp.ngo/research/all/environmentally-harmful-dumping-of-inefficient-and-obsolete-air-conditioners-in-africa/> (last accessed 14 April 2021).

<sup>8</sup> K.A. Agyarko, R. Opoku & R. Van Buskirk (2020) *Removing Barriers and Promoting Demand-Side Energy Efficiency in Households in Sub-Saharan Africa: A Case Study in Ghana*, ENERGY POLICY 137: p. 3 (“In ‘Market for lemons,’ Akerlof describes how when a market does not provide consumers reliable information regarding product quality, then the dynamics of the market causes a flood of cheaper, more profitable low-quality products that force higher quality products out of the market. Because of the inability of consumers to reliably identify

that use obsolete refrigerants smother economic growth through high ownership costs of electricity, costly repair, and the inevitable abandonment after the short remaining operating life.<sup>9</sup> Consumers waste money on these appliances, which are often unrepairable because parts are not available for brands not sold new. Similarly, appliances that use obsolete refrigerants increase future demand for servicing of those refrigerants, which will become increasingly expensive and unavailable as the HCFC phaseout and HFC phasedown under the Montreal Protocol proceeds, increasing future compliance costs. Ultimately, the used appliances are a burden to public waste management and recycling systems.

6. **Africa is rallying to stop environmental dumping of new and used, inefficient refrigeration and air conditioning appliances using obsolete ODS and HFC refrigerants.** At the African Ministerial Conference on the Environment (AMCEN) in November 2019, the African ministers for the environment, in Decision 17/1, XII(43), “urge Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer to adopt an action plan preventing market penetration of obsolete equipment in Africa while facilitating access to secure and energy efficient technologies on the continent.”<sup>10</sup> Africa’s resolve and outreach to the Montreal Protocol community to work in partnership to combat environmental dumping is reflected in the proposal for a Decision to Stop the Harmful Dumping of New and Used Inefficient Refrigeration and Air Conditioning Appliances Using Obsolete ODS and HFC Refrigerants, consistent with the AMCEN Decision.
7. **Stopping environmental dumping provides an opportunity for multilateral, regional, national, and civil-society leadership toward a different, more sustainable and equitable pathways.** For over 50 years, countries have responded to global challenges such as environmental dumping by combining science, innovation, and policy to find sustainable and equitable solutions. The Montreal Protocol offers the most effective environmental forum for countries to present issues that arise from a globalized world for cooperative problem solving.
8. **The international community recognizes the climate and sustainable development benefits from policies to prevent environmental dumping, but more collaboration is**

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higher quality products, sellers of high-quality products are unable to make profitable sales and the higher quality products disappear from the market.”), available at: <https://doi.org/10.1016/j.enpol.2019.111149> (last accessed 14 April 2021); see also S. de la Rue du Can, G. Leventis, A. Phadke & A. Gopal (2014), Design of incentive programs for accelerating penetration of energy-efficient appliances, *ENERGY POLICY* 72: pp. 56–66, 56 (“One of the most significant barriers that policy makers identify to the purchase of energy-efficient equipment is the relatively higher up-front costs of efficient products. In many instances, these costs deter potential purchasers even when investments appear to be in consumers’ interest (i.e., when investments are cost effective over the equipment lifetime). Consumers place great value on immediate savings and heavily discount future savings. Moreover, because they may not be able to easily evaluate future savings, consumers tend to have a low degree of confidence in expected paybacks. As a result, consumers often purchase the cheapest options available.”), available at: <https://doi.org/10.1016/j.enpol.2014.04.035> (last accessed 14 April 2021).

<sup>9</sup> Centre for Energy, Environment, and Sustainable Development (2020) *Domestic Refrigerating Appliance and Room Air Conditioner Market and Feasibility Assessment: ECOWAS Refrigerators and ACs Initiative (ECOFRIDGES) in Ghana*, p. 2 (“over 2 million inefficient refrigeration appliances are used in households in Ghana, presenting economic cost that runs into hundreds of millions of dollars in electricity bills to the national economy while resulting in increased carbon footprint of the country (each inefficient appliance generates over 0.7 tons of carbon emissions annually. On the other hand, the annual energy consumption of ACs range between 1,532 to 2,680 kWh/yr, depending on the cooling capacity (GIZ 2018). Furthermore, most of the old refrigerators and ACs use environmentally harmful refrigerants that are released into the atmosphere, especially in cases when they are improperly discarded. At least 2 tons of ozone-depleting substances are released into the atmosphere through this phenomenon.”), available at: <https://doi.org/10.1016/j.enpol.2019.111149> (last accessed 14 April 2021), citing S. Gyamfi, F.A. Diawu, E.N. Kumi, F. Sika & M. Modjinou (2017) *The energy efficiency situation in Ghana*, *RENEWABLE AND SUSTAINABLE ENERGY REVIEWS* 82: 1415–1423 (no link available) and GIZ Green Cooling Initiative (2018) *Ghana’s Greenhouse Gas Inventory and Technology Gap Analysis for the Refrigeration and Air Conditioning Sector* (available at [https://www.green-cooling-initiative.org/fileadmin/Publications/2018\\_GCI\\_Inventory\\_Report\\_Ghana.pdf](https://www.green-cooling-initiative.org/fileadmin/Publications/2018_GCI_Inventory_Report_Ghana.pdf)) (last accessed 14 April 2021); P. Fleming (June 2020) *Tokumbo’: How African nations are battling with the sale of ‘zombie’ appliances*, *World Economic Forum* (“But once the cast-off appliances are carted home, there is no guarantee they will come back to life - and if they do, the cost to run them can be exorbitant, both for their users and the environment, environmental groups say.”), available at: <https://www.weforum.org/agenda/2020/06/africa-selling-air-conditioning-refrigerators/> (last accessed 14 April 2021).

<sup>10</sup> African Ministerial Conference on the Environment (AMCEN) Decision 17/1, XII(43) (Montreal Protocol and Kigali Amendment thereto) (November 2019), available at: [https://wedocs.unep.org/bitstream/handle/20.500.11822/30731/AMCEN\\_17Omnibus.pdf?sequence=7&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/30731/AMCEN_17Omnibus.pdf?sequence=7&isAllowed=y) (last accessed 14 April 2021).

**needed.** The International Energy Agency and UN Environment Programme *Cooling Emissions and Policy Synthesis Report: Benefits of cooling efficiency and the Kigali Amendment* (July 2020) recognizes that “[e]ffective anti-environmental dumping campaigns can help transform markets.”<sup>11</sup> The Intergovernmental Panel on Climate Change (IPCC) has also recognized in its Special Report on Global Warming of 1.5°C that policy tools, (which include tools to stop environmental dumping), can help mobilize resources to secure equity of transition to climate-resilient development.<sup>12</sup> Stopping environmental dumping was also highlighted in recommendations for the G20: “Enhance trade of and technology transfer in high energy efficiency products and design of anti-dumping policies in developing countries in order to prohibit the import of both new and used obsolete technologies.”<sup>13</sup>

9. **Africa, at the regional and national levels, is working hard to block dumping and promote high-efficiency refrigerators and air conditioners that use low global warming potential refrigerants.** Individual country border-control authorities are undertaking heroic efforts to stop environmental dumping. Even where such efforts are at maximum effect, the rising tide of new and used inefficient refrigerator and air conditioner imports from overseas threatens African nations’ success. Furthermore, unprincipled organizations engaged in environmental dumping of appliances are more likely to be engaged in other illegal activity, such as trade in and venting of prohibited refrigerants, rather than engaging in environmentally sound recycling or destruction.
10. **Exporting countries and importing parties can develop and implement policies to stop environmental dumping.** Together, the Montreal Protocol community can join Africa in doing its part to better understand and stop environmental dumping. The proposal for a Decision to Stop the Harmful Dumping of New and Used Inefficient Refrigeration and Air Conditioning Appliances Using Obsolete ODS and HFC Refrigerants is an important next step.

<sup>11</sup> UNEP and IEA (July 2020) *Cooling Emissions and Policy Synthesis Report: Benefits of cooling efficiency and the Kigali Amendment*, pp. 13, 32, and 41, available at: <https://wedocs.unep.org/bitstream/handle/20.500.11822/33094/CoolRep.pdf?sequence=1&isAllowed=y> (last accessed 14 April 2021).

<sup>12</sup> IPCC, Special Report, Global Warming of 1.5°C, (Summary for Policymakers), available at [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_SPM\\_version\\_report\\_LR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf) (last accessed 14 April 2021). The policy tools described in *Environmental Dumping* 2018 are initial examples that the international community can expand. One such tool, the Montreal Protocol “informal Prior Informed Consent” (IPIC) mechanism, is a powerful means for Montreal Protocol community awareness-raising and policy notification. The more Montreal Protocol Parties register and use this tool to spread awareness of their own policy efforts to stop environmental dumping, the greater the community recognition of anti-environmental dumping efforts and models, opportunities for best practice sharing, and coordination involving domestic law enforcement information. This is one of many tools, but a mechanism with a history of success within the Montreal Protocol community. See, for example, UNEP, OzoNews, Volume XX, 15 April 2020, p. 2 (“OzonAction’s iPIC system helps prevent an illegal shipment of 72 tonnes of HCFC-22”), available at: <https://wedocs.unep.org/handle/20.500.11822/32110> (last accessed 14 April 2021).

<sup>13</sup> N. Howarth, N. Al Saud, M. Al Shalan, T. Al Shehri, M. Bari, M. Beaugrand, R. Khosla, M. Krarti, A. Lanza, B. Lebot, K. Mangotra, N. Odnoletkova, T. Patzek & Y. Saheb (2020) *Policy Brief: Enhancing Voluntary Collaboration on Cooling through the G20, T20 Task Force 2: Climate Change and Environment*, p. 4 (“Enhance trade and technology transfer in high-efficiency products and support the design of anti-dumping policies in developing countries to prohibit the import of inefficient and obsolete technologies—new and used—from G20 countries”), available at: [https://t20saudiArabia.github.io/PolicyBriefs/T20\\_TF2\\_PB11.pdf](https://t20saudiArabia.github.io/PolicyBriefs/T20_TF2_PB11.pdf) (last accessed 14 April 2021).

## Annex III

### Decision XXXI/1: Terms of reference for the study on the 2021–2023 replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol

*Recalling* the parties' decisions on previous terms of reference for studies on the replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer,

*Recalling also* the parties' decisions on previous replenishments of the Multilateral Fund,

1. To request the Technology and Economic Assessment Panel to prepare a report for submission to the Thirty-Second Meeting of the Parties to the Montreal Protocol, and to submit it through the Open-ended Working Group of the Parties to the Montreal Protocol at its forty-second meeting, to enable the Thirty-Second Meeting of the Parties to adopt a decision on the appropriate level of the 2021–2023 replenishment of the Multilateral Fund;

2. That, in preparing the report referred to in paragraph 1 of the present decision, the Panel should take into account, among other things:

(a) All control measures and relevant decisions agreed upon by the parties to the Montreal Protocol and the Executive Committee of the Multilateral Fund, including decision XXVIII/2, and the decisions of the Thirty-First Meeting of the Parties and the Executive Committee at its meetings, up to and including its eighty-fifth meeting, insofar as those decisions will necessitate expenditure by the Multilateral Fund during the period 2021–2023;

(b) The need to consider the special needs of low-volume-consuming and very-low-volume-consuming countries;

(c) The need to allocate resources to enable all parties operating under paragraph 1 of Article 5 of the Montreal Protocol (Article 5 parties) to achieve and/or maintain compliance with Articles 2A–2J of the Protocol, taking into account decision XIX/6 of the Meeting of the Parties, and the reductions and extended commitments made by Article 5 parties under approved hydrochlorofluorocarbon (HCFC) phase-out management plans, and decision XXVIII/2, and noting that the Panel in its supplementary report shall provide any information or clarification as requested by any party relating to the allocation of resources;

(d) Decisions, rules and guidelines agreed by the Executive Committee at all its meetings, up to and including its eighty-fifth meeting, in determining eligibility for the funding of investment projects and non-investment projects;

(e) The need to allocate resources for Article 5 parties to comply with the Kigali Amendment to the Montreal Protocol, including the preparation and, if needed, the implementation of phase-down plans for hydrofluorocarbons (HFCs) that could include early activities in the servicing and end-users sector in order to comply with the Kigali Amendment by addressing the high growth rate in HFC consumption;

(f) The need to allocate resources to the low-volume-consuming countries for the introduction of zero-global-warming-potential or low-global-warming-potential alternatives to HFCs and to maintain energy efficiency in the servicing and end-users sector, in line with any relevant decisions of the Executive Committee;

(g) Three scenarios representing different potential levels of ratification of the Kigali Amendment when estimating the funding requirement for the phase-down of HFCs;

(h) The cost of supporting a limited number of stand-alone projects transitioning out of HFCs, in accordance with paragraph 4 of decision XXX/5;

3. That the Panel should provide indicative figures of the resources within the estimated funding required for phasing out HCFCs that could be associated with enabling Article 5 parties to directly transition from HCFCs to the use of low-global-warming-potential or zero-global-warming-potential alternatives, taking into account global warming potential, energy use, safety and other relevant factors. The indicative figures should be provided for a range of typical scenarios, including a low-volume-consuming country, a small manufacturing country and a medium-sized manufacturing country;

4. That, in preparing the report, the Panel should consult widely, including all relevant persons and institutions and other relevant sources of information deemed useful;
5. That the Panel should strive to complete the report in good time to enable it to be distributed to all parties two months before the forty-second meeting of the Open-ended Working Group;
6. That the Panel should provide indicative figures for the periods 2024–2026 and 2027–2029 to support a stable and sufficient level of funding, on the understanding that those figures will be updated in subsequent replenishment studies.

## Annex IV

### Proposal by Morocco

#### **Opportunity to strengthen the Technology and Economic Assessment Panel and the technical options committees for the phase-down of hydrofluorocarbons and other future challenges related to the Montreal Protocol and the climate**

*The Thirty-Second Meeting of the Parties decides,*

*Taking note* of decision XXIV/8, in which the parties requested the Technology and Economic Assessment Panel to make recommendations on the future configuration of its technical options committees,

*Taking note also* of paragraph 17 of decision XXIII/10, in which the parties requested the Technology and Economic Assessment Panel to revise its draft guidelines on recusal, taking into account similar guidelines in other multilateral forums, and provide them to the Open-ended Working Group at its thirty-second meeting for consideration by the parties,

*Taking note further* of the terms of reference of the Panel as set out in annex V to the report of the Eighth Meeting of the Parties, as amended by decision XVIII/19 and decision XXIV/8,

*Taking note* of paragraph 20 of decision XXIII/10, in which the parties requested the Technology and Economic Assessment Panel to update its terms of reference,

*Recalling* decision VII/34 on the assessment panels and specifically on efforts to increase the participation of experts from parties operating under paragraph 1 of Article 5 of the Protocol in order to improve geographical expertise and balance,

*Noting* that the Technology and Economic Assessment Panel and its technical options committees have not yet achieved the overall goal of approximately 50 per cent of representation by parties operating under paragraph 1 of Article 5 of the Protocol on the Panel or on its technical options committees, nor has an appropriate representation of expertise in the different alternatives been achieved, taking into account gender and geographical balance,

*Noting also* that the phase-out of ozone-depleting substances, including essential-use exemptions and critical-use exemptions, is nearly complete and that the focus has shifted to hydrofluorocarbon phase-down and energy efficiency,

*Noting further* that the Executive Committee has not developed cost guidance relevant to energy efficiency as requested in decision XXVIII/2 in 2015, owing to a lack of information,

1. *To consider* merging the Halons Technical Options Committee and the Methyl Bromide Technical Options Committee into the Medical and Chemicals Technical Options Committee and restructuring the Flexible and Rigid Foams Technical Options Committee for expertise in the alternatives and substitutes to high-global-warming-potential hydrofluorocarbons;
2. *To also consider* the creation of an energy efficiency technical options committee;
3. *To request* the Technology and Economic Assessment Panel to make recommendations on the future configuration of its technical options committees to the Open-ended Working Group at its forty-third