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# ENGLISH ONLY

## UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE Twenty-fourth session Bonn, 18–26 May 2006

Item 12 (b) of the provisional agenda Cooperation with relevant international organizations Special report on safeguarding the ozone layer and the global climate system: issues relating to hydrofluorocarbons and perfluorocarbons

# Information on consideration by the Meeting of the Parties to the Montreal Protocol of the special report on safeguarding the ozone layer and the global climate system

## Submission from the Ozone Secretariat

1. The Subsidiary Body for Scientific and Technological Advice, at its twenty-second session, concluded (FCCC/SBSTA/2005/4, para. 91) that it would welcome information, by its twenty-fourth session (May 2006), from the Ozone Secretariat<sup>\*</sup> on any consideration by the Meeting of the Parties to the Montreal Protocol of the special report entitled *Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons.*<sup>\*\*</sup>

2. The secretariat has received information from the Ozone Secretariat. In accordance with the procedure for miscellaneous documents, the submitted information is attached and reproduced<sup>\*\*\*</sup> in the language in which it was received and without formal editing.

# FCCC/SBSTA/2006/MISC.7

<sup>\*</sup> Secretariat for the Vienna Convention for the Protection of the Ozone Layer and for its Montreal Protocol.

<sup>\*\*</sup> Prepared by the Intergovernmental Panel on Climate Change and the Technology and Economic Assessment Panel of the Montreal Protocol.

<sup>\*\*\*</sup> This submission has been electronically imported in order to make it available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the text as submitted

# SUBMISSION FROM THE OZONE SECRETARIAT

1. The Seventeenth Meeting of the Parties to the Montreal Protocol (17MOP) in Dakar considered the report and took a decision, decision XV11/19 titled "Consideration of the Technology and Economic Assessment Panel and Intergovernmental Panel on Climate Change on Climate Change assessment report as it relates to actions to address ozone depletion".

2. Among other things, that decision requested the Ozone Secretariat to organize a workshop of experts to hear a summary of the above noted report and produce a list of practical measures relating to ozone depletion that arise from the report. The decision also requests that this list indicate the associated cost effectiveness of such measures taking into account their full cost, and, provide information on other environmental benefits that would result from taking such actions, including benefits relating to climate change. Furthermore, the decision requested that representatives of the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) be invited to attend the workshop as observers and report back to the UNFCCC. The workshop is being organized on 7 July 2006 in Montreal.

3. In response to the conclusions of the Subsidiary Body for Scientific and Technological Advice, at its twenty-second session, the Ozone Secretariat is providing the following information (as extracts from the report the 17MOP included in document UNEP/OzL.Conv.7/7–UNEP/OzL.Pro.17/11) for the consideration of the Parties to the UNFCCC:

- (a) A short account of the discussions by the 17MOP (paragraphs 114-126 of the report of the 17MOP),
- (b) Decision XVII/19 titled "Consideration of the Technology and Economic Assessment Panel and Intergovernmental Panel on Climate Change on Climate Change assessment report as it relates to actions to address ozone depletion".

4. In addition, the Ozone Secretariat would like to bring to the attention of the Parties to the UNFCCC the Supplementary report to the IPCC/TEAP special report prepared by TEAP for the Parties to the Montreal Protocol (http://ozone.unep.org/teap/Reports/TEAP\_Reports/teap-supplement-ippc-teap-report-nov2005.pdf) that may be of relevance to the discussions during SBSTA24.

#### Appendix I

#### A short account of the discussions by the 17MOP

E. Consideration of the supplemental report arising out of the deliberations of the Open-ended Working Group on the actions to address ozone depletion discussed in the joint Special Assessment Report of the Technology and Economic Assessment Panel and the Intergovernmental Panel on Climate Change

114. The Co-Chair recalled that, after consideration of a special report of the Technology and Economic Assessment Panel and the Intergovernmental Panel on Climate Change (IPCC) on issues related to ozone depletion and climate change, the Open-ended Working Group had agreed to ask the Technology and Economic Assessment Panel to prepare a supplemental report aimed at providing more information on the ozone-related impacts of various concepts included in the original report. He then invited Mr. Kuijpers, as co-chair of the task force established by the Panel for the purposes of preparing that supplemental report, to make a presentation on its finding s.

115. In his presentation, Mr. Kuijpers first reviewed the remit of the task force, which was to establish the ozonedepletion implications of the issues raised in the special report, including the current and future projected levels of ozone-depletion potential contained in and emitted from banks, and then to forecast atmospheric concentrations of ozone-depleting substances under the mitigation and business-as-usual scenarios included in the report, to estimate their impact on the ozone layer, and to provide an estimated cost of mitigation measures described in the special report on the basis of cost per ozone-depleting potential (ODP)-tonne.

116. After outlining the membership of the task force and the structure and schedule for the preparation of the supplemental report, Mr. Kuijpers noted that the special report and its supplements contained some uncertainties due to lack of information on current ozone-depleting substance use patterns, particularly in developing countries; there were also some uncert ainties relating to emission factors and product lifetimes. He also noted that, given the bottom-up assessments derived from the special report, certain factors, including the inability of the report to cover all sources of historic emissions and the fact that not all hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) were substitutes for previous ozone-depleting substance uses, would tend systematically to result in underestimates of historic emissions.

117. He noted that the supplement concluded that applying mitigation strategies to banks would have a relatively small effect on ozone layer recovery. He also noted, however, that some options to limit emissions, particularly in refrigeration, were clearly achievable and cost-effective. The supplement also concluded that management of end-of-life impacts had the biggest consequence on minimizing emissions, but generally carried greater costs than measures such as leak reduction, which could be accomplished earlier in product life cycles. He also noted that mitigation strategies in developing countries could carry greater costs due to lack of infrastructure and that, overall, a less expensive means of restricting emissions of ozone-depleting substances than life-cycle measures might be early reduction in HCFC use in Article 5 Parties. The economic basis for mandating recovery of ozone-depleting substances from banks, he said, was often questionable, and some recovery from banks might be impractical.

118. In conclusion, he stated that, while emissions reduction from banks was not required by the Montreal Protocol, addressing ozone-depletion impacts was an objective of the Protocol. Furthermore, if one considered the value of mitigation measures in terms of both the reduction of emissions of ozone-depleting substances and climate benefits, the economic value of such measures was enhanced. That was to be recognized in national and international efforts to address related issues under the Montreal Protocol, the United Nations Framework Convention on Climate Change and the Kyoto Protocol.

119. In the ensuing discussion, all speakers expressed their appreciation to the Technology and Economic Assessment Panel for its supplemental report. One representative, noting the limited success to date of projects to recover and recycle ozone-depleting substances, emphasized the need to promote best practices and suggested that further consideration be given to the use of carbon dioxide and NH<sub>3</sub> as alternative refrigerant gases. He and another representative also spoke in favour of hydrocarbon technology as a possible alternative to ozone-depleting substances. Another representative expressed concern that processes used for the production of HCFC-22 actually produced HFC-23 as a by-product, which was both a greenhouse gas and an ozone-depleting substance.

120. Several representatives requested the Panel to provide more detailed information about the costs of emissions reduction activities and about the cost-effectiveness of reducing the amount of HFCs and CFCs in banks. One also called

for more specific predictions regarding ozone layer recovery. It was also noted that developing countries would benefit from international support in that regard. The representative of an Article 5 Party noted with concern that his country lacked the technology and infrastructure to implement mitigation strategies. Another representative spoke in favour of the early reduction of HCFCs and expressed concern about emissions of CFC-113.

121. One representative spoke in favour of holding an expert workshop in 2006 to examine the impact of mitigation measures further, and agreed with other speakers that Parties should give further consideration to the links between the Montreal Protocol and the United Nations Framework Convention on Climate Change and its Kyoto Protocol, in order to prevent overlap or duplication of work under the two conventions.

122. In response to those comments, Mr. Kuijpers pointed out that emphasis in the report had been placed on the impact of measures to reduce ozone-depleting substances rather than on the consideration of alternative technologies. He said that, while the issue of CFC-113 emissions could be taken up by the Panel in the future, the issue of HFC-23 production as a by-product of HCFC-22 destruction related more to climate change than to ozone-depletion, and had recently been addressed at the United Nations climate change conference held in Montreal from 28 November to 9 December 2005. He acknowledged the crucial need for adequate infrastructure for implementing mitigation strategies and agreed that further studies were needed, including on the discrepancies between the atmospheric findings and bottom-up assessment applied in the report. In conclusion, he said that the Panel would conduct a study in 2006 on the use of hydrocarbon technology as a way of avoiding ozone depletion.

123. The representative of the European Community introduced a draft decision on the issue, which had been submitted by her delegation and the delegations of New Zealand, Norway, Switzerland and the United States of America.

124. In the ensuing discussion, one representative expressed concern that the terms of reference of the experts workshop referred to in the draft decision overlapped with those of the Executive Committee workshop to be held in February 2006 on the collection, recovery, recycling, reclamation, transportation and destruction of unwanted ozone-depleting substances. She suggested that the proposal to hold an experts workshop should be deferred until after the Executive Committee workshop.

125. Following informal consultations, the representative of the European Community informed the preparatory segment that agreement had been reached on the text of the draft decision. She also clarified the intent of its sponsors that the experts ' workshop be held immediately before or after the twenty-sixth meeting of the Open-ended Working Group.

126. The preparatory segment agreed to forward the draft decision on the item to the high-level segment for approval.

### Appendix II

# Decision XVII/19: Consideration of the Technology and Economic Assessment Panel and Intergovernmental Panel on Climate Change assessment report as it relates to actions to address ozone depletion

*Noting with appreciation* the special report of the Technology and Economic A ssessment Panel and the Intergovernmental Panel on Climate Change, "Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons", and the Technology and Economic Assessment Panel's supplementary report that sets out clearly the ozone depletion implications of the issues raised in the special report,

*Noting* the supplementary report's conclusion that mitigation strategies relating to banks of ozone-depleting substances will have limited impact on ozone-layer recovery,

Acknowledging the need for Parties to have a full understanding of the policy implications for ozone layer protection of forecast emissions from banks of ozone-depleting substances in both global and regional terms,

*Recalling* the report of the sixth meeting of Ozone Research Managers of the Parties to the Vienna Convention, which reported that activities under the "mitigation scenario" presented in the special report provided an opportunity to protect the ozone layer further and to reduce greenhouse gases significantly,<sup>1</sup>

*Acknowledging* that the upcoming 2006 Scientific Assessment Report will cover in more detail some issues raised in the special report of the Intergovernmental Panel on Climate Change and the Technology and Economic Assessment Panel, such as the discrepancy between atmospheric concentrations of ozone-depleting substances and emissions reported,

1. To request the Ozone Secretariat to organize an experts workshop in the margins of the twenty-sixth meeting of the Open-ended Working Group in 2006, to consider issues as described in paragraph 3 of the present decision, arising from the special report of the Intergovernmental Panel on Climate Change and the Technology and Economic Assessment Panel and the Technology and Economic Assessment Panel's supplementary report;

2. To request Parties to provide nominations for experts to participate in the workshop to the Ozone Secretariat by 30 March 2006, aiming for a balanced representation from regional groups;

3. To request the Technology and Economic Assessment Panel to present a summary of the reports at the workshop and that experts then produce a list of practical measures relating to ozone depletion that arise from the reports, indicating their associated ozone-depleting substances cost effectiveness and taking into account the full costs of such measures. The list should also contain information on other environmental benefits, including those relating to climate change, that would result from these measures;

4. To request the Ozone Secretariat to produce a report of the workshop to the Parties by 1 September 2006 and report to the Eighteenth Meeting of the Parties;

5. To request the Ozone Secretariat to inform the Secretariat of the United Nations Framework Convention on Climate Change of the workshop and invite its representatives to attend as observers and report back to the United Nations Framework Convention on Climate Change;

6. To request the Technology and Economic Assessment Panel to coordinate with the World Met eorological Organization and the Scientific Assessment Panel to clarify the source of the discrepancy between emissions determined from bottom-up methods and from atmospheric measurement, with a view to:

(a) Identifying the use patterns for the total production forecast for the period 2002–2015 in both Parties operating under paragraph 1 of Article 5 of the Montreal Protocol and Parties not so operating;

(b) Making improved estimates of future emissions from banks, including those in the refrigeration, foams and other sectors, given the accuracy of calculations of the size of banks and the emissions derived from them, as well as servicing practices, and issues relating to recovery and recycling and end-of-life;

7. To request the Technology and Economic Assessment Panel to report to the Parties at their Eighteenth Meeting on the activities referred to in paragraph 6;

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<sup>&</sup>lt;sup>1</sup> WMO Global Ozone Research Monitoring Project, Report No. 48.