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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



UNEP

INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

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Agenda item: 7.2
ENGLISH ONLY

PROPOSALS FOR SPECIAL REPORTS, METHODOLOGY REPORTS AND TECHNICAL PAPERS

**Proposal for a Special Report on the greenhouse effect of substitutes for gases
affected by the Montreal Protocol (PFCs and HFCs)**

(Submitted by the Secretariat)

The Panel is invited to note this background information that relates to Item 7.2.

17 October 2002

ENGLISH ONLY

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

Seventeenth session

New Delhi, 23–29 October 2002

Item 6 of the provisional agenda

**RELATIONSHIP BETWEEN EFFORTS TO PROTECT THE STRATOSPHERIC OZONE
LAYER AND EFFORTS TO SAFEGUARD THE GLOBAL CLIMATE SYSTEM: ISSUES
RELATING TO HYDROFLUOROCARBONS AND PERFLUOROCARBONS**

**Responses from the Intergovernmental Panel on Climate Change and
the Technology and Economic Assessment Panel**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its sixteenth session, noted the importance of developing a balanced scientific, technical and policy-relevant information package to make policy-neutral, user-friendly information available to all Parties and stakeholders to assist them in making informed decisions when evaluating alternatives to ozone-depleting substances, while at the same time contributing to the objectives of the Montreal Protocol and the UNFCCC (FCCC/SBSTA/2002/6, para. 41 (f)).
2. At the same session, the SBSTA invited the Intergovernmental Panel on Climate Change (IPCC) and the Technology and Economic Assessment Panel (TEAP) of the Montreal Protocol, in consultation with other organizations such as the United Nations Environment Programme (UNEP), to consider the modalities, feasibility, resource implications and timing of providing the balanced scientific and technical information described above. The SBSTA also invited them to communicate their replies to the secretariat before the seventeenth session of the SBSTA (FCCC/SBSTA/2002/6, para. 41 (h)).
3. The secretariat has received the corresponding replies from the IPCC and the TEAP which are included in the present document. In accordance with the procedure for miscellaneous documents, these responses are attached and reproduced* in the language in which they were received and without formal editing.

* The attached texts have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

Letter to: Mr Halldor THORGEIRSSON
Division of International Affairs
Ministry for the Environment
Vonarstraeti 4
150 REYKJAVIK
Iceland

Letter from: Intergovernmental Panel on Climate Change
c/o WMO
7bis, Avenue de la Paix
1211 Geneva 2
Switzerland

Dated: 27 September 2002

We are pleased to present our response to the request described below.

2. At its sixteenth session the Subsidiary Body for Scientific and Technological Advice (SBSTA) in June 2002 invited the Intergovernmental Panel on Climate Change (IPCC) and the Technology and Economic Assessment Panel of the Montreal Protocol (TEAP), in consultation with other organisations such as UNEP, to consider the modalities, feasibility, resource implications and timing of providing an information package on hydrofluorocarbons and perfluorocarbons, covering the following three broad areas:

- (a) A summary of up-to-date scientific information on the relation of ozone layer depletion and global warming, including concentrations of relevant ozone-depleting and greenhouse gases;
- (b) Technical information on practices and technologies for phasing out ozone-depleting substances and at the same time contributing to the objectives of the Convention and the Montreal Protocol. It should cover the relevant sectors, including heating, refrigeration and air-conditioning, foams, aerosols, solvents and fire-fighting applications. It should include the technical options, *inter alia*, of improved containment, use of fluids, gases or aerosols with negligible or lower global warming potential, use of not-in-kind technology, process improvement and end-of-life-cycle recovery, recycling and disposal. It should present technical information relevant to evaluation, including cost, availability, health, medical, environmental and safety issues, technical performance, energy and resource efficiency and all associated greenhouse gas emissions using life cycle climate performance. Where appropriate, reference should be made to relevant policies and measures;
- (c) The future demand and supply of HFCs and the implication for developing countries, drawing upon relevant reports. The SBSTA noted that many developing countries use HFCs in applications and depend on imports of these substances.

3. In asking for this the SBSTA requested that:

- (a) This information package should not duplicate current efforts by those organizations.
- (b) It is within the mandate of those organizations.
- (c) It builds also upon the information already provided, is cost-efficient, and does not lead to the creation of any new reporting requirements for Parties.

4. The IPCC Bureau, at its 27th session (7-8 August 2002), considered the request. The attached document (Doc 10, Rev. 3) was considered and agreed, and is briefly summarized and updated in the following paragraphs. The IPCC Bureau decided the IPCC should work with experts from TEAP to prepare a submission to SBSTA. We present below the results of those discussions. The IPCC Bureau agreed that the IPCC commit, subject to IPCC approval (next possible in February 2003), to the following actions:

Part (a)

5. Preparing a brief summary of the relevant findings from TAR and the UNEP/WMO 1998 and 2002 Ozone Assessment Reports.

Part (b)

6. Following the IPCC procedures, and involving among others the experts that are or have been active in TEAP and its Technical Options Committees, IPCC would prepare a Special Report on practices and technologies that would assist Parties in making informed decisions when evaluating alternatives to ozone depleting substances while at the same time contributing to the objectives of the UNFCCC and the Montreal Protocol.

7. The aim of the Special Report would be to inform industry and policy decision making regarding relevant considerations in choosing among options to replace ozone depleting substances. The choice among options involves a number of environmental, health, safety, and technical performance considerations in addition to consideration of direct and indirect greenhouse gas emissions.

8. For each type of application the Special Report would cover the relevant technical/scientific considerations,, including:

- Technical information relevant to the evaluation, including cost, availability, health, environment and safety considerations, technical performance, energy and resource efficiency and all greenhouse gas emissions, using a systematic approach, such as the total equivalent warming impact (TEWI) and all greenhouse gases and LifeCycle Climate Performance (LCCP).
- Technical options to reduce greenhouse gas emissions, e.g. through containment, recovery, recycling, destruction, the use of alternative fluids and not-in-kind technologies. Where appropriate reference should be made to examples of relevant policies and measures.

9. An integrated analysis would assess toxicity, atmospheric chemistry effects (e.g., air quality) and potential build up of gases and their degradation products in the atmosphere.

10. Reference could be made to the full range of technical literature as specified in the IPCC procedures on the use of non-peer reviewed literature (as done in the Annex to Chapter 3 of WG 3 of the IPCC-TAR).

11. It is recognised that due to the technical nature of the Special Report, participation of the appropriate industry experts (in their personal capacities as experts and not as representatives) would need to be ensured. Following standard IPCC practices, the best qualified technical experts would be sought across sectors and geographic regions (including, e.g., academia, industry, non-governmental organisations, etc.).

12. Consistent with IPCC procedures, all possible measures would be taken to ensure that the report would be policy neutral and user-friendly.

13. Noting the highly technical and detailed character of the information to be assessed some portions of the Summary for Policymakers could be limited to procedural elements rather than also summarising the technical content of the report. This would be analogous to the way the Summary for Policymakers is handled for IPCC Inventory Methodology Reports.

14. The special report would be prepared in a way that will facilitate easy access by users. The report will be posted on the web-site of IPCC and be distributed through CD ROM.

15. Notwithstanding this agreement given above, there was concern that including considerations of health and safety not related to climate change would go beyond IPCC's traditional area of expertise while such topics have been traditionally considered by TEAP. Modalities to deal with this issue are outlined in Paragraph 18 (below).

Part (c)

16. The IPCC Bureau considered that the IPCC could not contribute to this part of the request.

The Outcome of Discussions between IPCC and TEAP Representatives

17. On 9 September Dr Susan Solomon (Co-chair, IPCC Working Group I), Dr Bert Metz (Co-chair, IPCC Working Group III), Dr Stephen O. Andersen (Co-chair, TEAP), Dr Lambert Kuijpers (Co-chair, TEAP) and Dr Geoff Love (Secretary of the IPCC) discussed the matter via tele-conference. In that conference it was noted that:

18. The group identified essentially two options for meeting the SBSTA request in the light of the concerns about the limits to the IPCC responsibility in the field of health and safety, and the fact that IPCC cannot contribute to part c) of the request:

- (1) The IPCC and TEAP would prepare complementary reports, each using their own procedures, but appropriately coordinated such that the part (b) health and safety component, would be covered by TEAP. In this case there would be an oversighting IPCC/TEAP Steering Committee tasked with agreeing what material would be covered in each report, and with reviewing the draft reports as they approached finality to ensure that they were properly complementary and, together, comprehensive in their coverage of the SBSTA request.
- (2) The IPCC and TEAP would work together, under IPCC procedures, to produce a joint single report that addressed the SBSTA request. In this case, there would be an IPCC/TEAP Steering Committee in place that would structure the report and monitor its preparation, so as to ensure that the responsibilities of IPCC and TEAP are used in a complementary way.

19. Under either option (1) or (2), the IPCC/TEAP Steering Committee would be convened with explicit terms of reference. Those Terms of Reference would make clear how the responsibilities of IPCC and TEAP are defined for the respective subject areas.

20. The co-chairs of WG III and I of IPCC, and the TEAP co-chairs strongly feel that option (2) would best assure a consistent and inclusive review process following all relevant IPCC procedures for special reports, and would yield a comprehensive report best covering the full breadth of the scientific and technical issues in their totality.

21. The co-chairs note that a possible timetable for dealing with the matters raised by SBSTA could be:

- (i) a decision by UNFCCC/ COP8 in late October to proceed with the work;

- (ii) endorsement of the work to be done by TEAP by the Montreal Protocol Parties in November, as well as agreement by TEAP at its late-November meeting to undertake its part of the work;
- (iii) convening of an IPCC/TEAP Steering Committee thereafter, to prepare, in consultation with relevant experts, a scoping document outlining the content, structure and proposed lead authors for the report for discussion at the IPCC plenary;
- (iv) a decision by the IPCC, at its February 2003 plenary on undertaking its part of the work; and, finally
- (v) preparation of the report for delivery about 18-24 months after its inception, i.e. in late-2004 or in early-2005.

22. The IPCC Chairman and the IPCC representatives mentioned above will brief the IPCC Bureau and the IPCC member governments of developments through to February 2003 and seek support for pursuing option (2) as given above in Paragraph 16. It must be noted that the IPCC, at its February plenary, could elect not to proceed with a Special Report on the subject matter.

Summary

23. The IPCC Bureau was pleased to receive SBSTA's request for a balanced scientific and technical information package on the relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system.

24. This response outlines a strategy and timetable for dealing with the issue in a considered and coordinated way. We believe that it forms the basis for proceeding, and for further dialogue, should SBSTA so require. We hope that the approach outlined here will be useful to SBSTA.

(G. Love)

Secretary of the IPCC

IPCC BUREAU
TWENTY-SEVENTH SESSION
Geneva, 7-8 August 2002
8.2.1

B-27/Doc. 10, Rev. 3
(24.VIII.2002)
Item

ENGLISH ONLY

**A PROPOSED RESPONSE TO A REQUEST FROM SBSTA REGARDING THE RELATIONSHIP BETWEEN
EFFORTS TO PROTECT THE STRATOSPHERIC OZONE LAYER AND EFFORTS TO SAFEGUARD THE
GLOBAL CLIMATE SYSTEM: ISSUES RELATING TO HYDROFLUOROCARBONS AND
PERFLUOROCARBONS**

1. At its sixteenth session the Subsidiary Body for Scientific and Technological Advice (SBSTA) in June 2002 invited the Intergovernmental Panel on Climate Change (IPCC) and the Technology and Economic Assessment Panel of the Montreal Protocol (TEAP), in consultation with other organizations such as the United Nations Environment Programme (UNEP), to consider the modalities, feasibility, resource implications and timing of providing an information package on hydrofluorocarbons and perfluorocarbons, covering the following three broad areas:

- (a) A summary of up-to-date scientific information on the relation of ozone layer depletion and global warming, including concentrations of relevant ozone-depleting and greenhouse gases;
 - (b) Technical information on practices and technologies for phasing out ozone-depleting substances and at the same time contributing to the objectives of the Convention and the Montreal Protocol. It should cover the relevant sectors, including heating, refrigeration and air-conditioning, foams, aerosols, solvents and fire-fighting applications. It should include the technical options, *inter alia*, of improved containment, use of fluids, gases or aerosols with negligible or lower global warming potential, use of not-in-kind technology, process improvement and end-of-life-cycle recovery, recycling and disposal. It should present technical information relevant to evaluation, including cost, availability, health, medical, environmental and safety issues, technical performance, energy and resource efficiency and all associated greenhouse gas emissions using life cycle climate performance. Where appropriate, reference should be made to relevant policies and measures;
 - (c) The future demand and supply of HFCs and the implication for developing countries, drawing upon relevant reports. The SBSTA noted that many developing countries use HFCs in applications and depend on imports of these substances.
2. The background to this request is given in the Annex to this Document.
3. In asking for this information the SBSTA requested that:
- (a) This information package should not duplicate current efforts by those organizations.
 - (b) It is within the mandate of those organizations.
 - (c) It builds also upon the information already provided, is cost-efficient, and does not lead to the creation of any new reporting requirements for Parties.
4. The SBSTA invited the IPCC and the TEAP, in cooperation with other organizations such as UNEP, to assess the feasibility of the preparation of such an information package.

5. The SBSTA will consider these replies with a view to deciding, at the time of COP 8, whether to make a further request on this issue to these bodies.

Proposed actions

6. On the basis of incomplete consultations between IPCC Working Group I and III Co-chairs and the Co-chair of TEAP the following suggestions are made for how the IPCC could respond to the SBSTA requests in Parts (a), (b) and (c).

Part (a) Summary of scientific information on the relation of ozone depletion and global warming

7. It is noted that comprehensive work has recently been carried out on this matter within the Third Assessment Report (TAR) of the IPCC. Also the Scientific Assessment of Ozone Depletion of UNEP and the World Meteorological Organization (WMO) was published last in 1998 and the next Assessment in this series is expected to be concluded and published around the end of 2002.

8. The community that prepares ozone assessment reports is a small one, and it is considered that it would be unrealistic to ask that they immediately repeat for the IPCC an assessment undertaken for UNEP/WMO. Noting that in asking for this information the SBSTA requested that: "It builds upon the information already provided, is cost-efficient, and does not lead to the creation of any new reporting requirements for Parties.", it would seem inappropriate, at this time, to repeat this UNEP/WMO Ozone Assessment in an IPCC Special Report although an IPCC Special Report could include a brief summary as an introduction to the issue. An alternative approach would be to give this issue special emphasis within the context of the Fourth Assessment.

Part (b) Technical information on practices and technologies

9. Reference is made to the work on this matter recently carried out within the framework of a large number of R&D projects as well as literature research projects by academic institutions, government, industry and environmental non-government organizations (NGOs).

10. The efforts of the UNFCCC secretariat in providing a web site and template to report information on available and potential ways and means of limiting emissions of hydrofluorocarbons and perfluorochemicals (perfluorocarbons, SF₆ and NF₃), including the use of some of these as replacements for ozone-depleting substances, is recognised as useful input for an assessment. It is also recognised that the wealth of information currently available to the Parties to the UNFCCC and to stakeholders often does not meet the criteria of being policy-neutral and user-friendly in order to satisfy the information needs of Parties as specified by the SBSTA.

11. Recent joint and separate efforts by the IPCC and the TEAP also need to be taken into account. These include, *inter alia*, the:

- (a) IPCC's TAR
- (b) Recent report of TEAP's HFC and PFC Task Force
- (c) Report of the Joint IPCC/TEAP expert meeting on options for the limitation of emissions of HFCs and PFCs (held in Petten, 1999)
- (d) 2002 Assessment Reports of TEAP and its Technical Options Committees, to be published by the end of 2002.

Part (c) Future demand and supply of HFCs and the implication for developing countries

12. A report on the future demand and supply of HFCs and the implication for developing countries will be hard to produce given the huge uncertainties in the market developments and the proprietary character of the information required. It is recognised that currently the required information is not available in the open literature.

13. IPCC is therefore not in a position to contribute to the request made by SBSTA on this issue.

Recommendation

14. It is recommended that the IPCC work with experts from TEAP to prepare a submission to SBSTA, and that in that submission the IPCC commits, subject to Panel approval, to the following actions:

Part (a)

15. A brief summary of the relevant findings from TAR and the UNEP/WMO 1998 and 2002 Ozone Assessment Reports could be included in a Special Report to serve as useful background. Furthermore, within the context of the Fourth Assessment Report special emphasis could be given to this issue.

Part (b)

16. Following the IPCC procedures, and involving experts that have been active in TEAP and its Technical Options Committees, IPCC would prepare a special report ("Compendium") on practices and technologies that would assist Parties in making informed decisions when evaluating alternatives to ozone depleting substances while at the same time contributing to the objectives of the UNFCCC and the Montreal Protocol.

17. The aim of the Compendium is to inform industry and policy decision making regarding relevant considerations in choosing among options to replace ozone depleting substances. This will involve a number of considerations not only regarding greenhouse gas potency. In doing this work the IPCC would give valuable assistance to the Parties to the UNFCCC as well as to other stakeholders in implementing this convention.

18. For each type of application the Compendium would cover the matters described above, including:

- Technical information relevant to the evaluation, including cost, availability, health, environment and safety considerations, technical performance, energy and resource efficiency and all greenhouse gas emissions, using a systematic approach, such as the total equivalent warming impact (TEWI) and all greenhouse gases and lifecycle climate performance (LCCP).
- Technical options to reduce greenhouse gas emissions, e.g. through containment, recovery, recycling, destruction, the use of alternative fluids and not-in-kind technologies. Where appropriate reference should be made to examples of relevant policies and measures.

19. An integrated analysis would be done to assess toxicity, atmospheric chemistry effects (e.g., air quality) and potential build up of gases and their degradation products in the atmosphere.

20. Reference could be made to the full range of technical literature as specified in the IPCC procedures on the use of non-peer reviewed literature (as done in the Annex to Chapter 3 of Working Group III of the IPCC-TAR).

21. It is recognised that due to the technical nature of the Compendium participation of the appropriate industry experts (in their personal capacity as experts and not as representatives) would need to be ensured.

22. Consistent with IPCC procedures, all possible measures would be taken to ensure that the report would be policy neutral and user-friendly.
23. Noting the highly technical and detailed character of the information to be assessed the Summary for Policymakers could be limited to procedural elements rather than also summarise the technical content of the report. This would be analogous to the way the Summary for Policymakers is handled for IPCC Inventory methodology reports.
24. The special report would be prepared in a way that will facilitate easy access by users. The report will be posted on the web-site of IPCC and be distributed through CD ROM.
25. The following timetable for preparation of the Compendium is foreseen:
- A first expert meeting on the broad contents and timelines prior to the SBSTA/JWG meeting in fall 2002.
 - An expert meeting in January 2003 to develop a work programme, Compendium structure and list of authors;
 - Consideration of the work programme, Compendium structure and list of authors by IPCC plenary in February/March 2003;
 - Subject to approval by IPCC plenary the Compendium would be drafted through 2003 and 2004 for approval by IPCC plenary in early 2005 (24 months turn-around time).
26. The cost to the IPCC of preparing this Compendium would be of the order of CHF 640,000 comprising the following elements:

In 2002: Small expert meeting prior to SBSTA/JWG, fall 2002 CHF 25,000

If the Special Report is requested by SBSTA:

In 2003/2004 Large expert meeting in January 2003 CHF 75,000

Then, if the IPCC plenary decides to go forward:

4 Lead Author meetings CHF 300,000

In 2005: WG I/III plenary if in association with another major plenary CHF 60,000.

Printing and publishing: CHF 180,000

Part (c)

27. It is recommended that IPCC respond to SBSTA that it cannot contribute to this part of the request. It is likely that TEAP would consider a possible response to the SBSTA request in the form of a report by experts based on manufacturers' information.
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ANNEX to Doc.10

Background

1. With its decision 13/CP.4, "Relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system: issues related to hydrofluorocarbons and perfluorocarbons" in November 1998, the COP initiated a discussion on this matter.
2. The decision invited Parties, the relevant bodies of the Montreal Protocol, the IPCC, intergovernmental organizations and non-governmental organizations to provide information to the secretariat, by 15 July 1999, on available and potential ways and means of limiting emissions of hydrofluorocarbons and perfluorocarbons, including their use as replacements for ozone-depleting substances. It also encouraged the convening of a workshop by the IPCC and TEAP in 1999. The aim of the workshop to assist the SBSTA in establishing information on available and potential ways and means of limiting emissions of hydrofluorocarbons and perfluorocarbons, and invites the IPCC to report on the results of such a joint workshop to the SBSTA at its eleventh session, if possible. It further requested the secretariat to compile the information provided, including, if available, the conclusions of the workshop, for consideration by the SBSTA at its eleventh session and requested the SBSTA to report on this information to the COP, at its fifth session, and to seek further guidance from the COP on this matter at that session.
3. As a reaction to this decision several activities were launched.
4. In November 1998, the Parties to the Montreal Protocol adopted decision X/16 in which the TEAP was requested to provide such information to the UNFCCC and to assess the implications to the Montreal Protocol of the inclusion of HFCs and PFCs in the Kyoto Protocol and to report these findings to its Eleventh Meeting (November 1999). In addition, the Parties to the Montreal Protocol also encouraged the IPCC and TEAP to jointly convene a workshop on 'available and potential ways and means' of limiting emissions of HFCs and PFCs.
5. Following the request by the Parties to the UNFCCC and the Montreal Protocol, the Technical Support Unit of the IPCC Working Group III and the TEAP co-organized the "Joint IPCC/TEAP expert meeting on options for the limitation of emissions of HFCs and PFCs" held in Petten, the Netherlands, 26 – 28 May 1999. The proceedings of the meeting are available on the internet.¹
6. The UNFCCC secretariat provided a web site and template to report information on available and potential ways and means of limiting emissions of hydrofluorocarbons and perfluorocarbons, including their use as replacements for ozone-depleting substances. Submissions were compiled in documents FCCC/SBSTA/1999/MISC.6 and Add.1 and 2 and were made available on the UNFCCC web site.²
7. The TEAP created a Task Force on HFCs and PFCs to undertake the assessment requested by the Parties to the Montreal Protocol. It produced the report "The implications to the Montreal Protocol of the inclusion of HFCs and PFCs in the Kyoto Protocol" in October 1999.³
8. The IPCC decided in 1999 to add an annex to its chapter 3 of its Working Group III report of the Third Assessment report on "Options to reduce global warming contributions from substitutes for ozone depleting substances" which was published in early 2001.
9. The SBSTA considered the issue again at its eleventh session in November 1999. In the discussions, several Parties proposed further work to evaluate the available information. Due to the disagreement on whether there is a need for further work and on the scope of such work, a general conclusion was reached that the SBSTA should consider information aspects of this issue at the first

¹ see <http://www.ecn.nl/library/reports/1999/rx99029.html>

² See <http://unfccc.int/program/wam/>

³ See http://www.teap.org/html/teap_reports.html

session following the sixth session of the Conference of the Parties (see FCCC/SBSTA/1999/14 and decision 17/CP.5).

10. The fifteenth session of the SBSTA in November 2001 was the first session after the sixth session of the COP, since the COP had resumed its sixth session in Bonn, June 2001. At that session, the SBSTA invited Parties and organizations to provide further information on available and potential ways and means of limiting emissions of hydrofluorocarbons and perfluorocarbons, invited Parties to provide their views, by 1 March 2002, on information aspects noted in decision 17/CP.5, requested the secretariat to prepare a document and decided to consider the issue further at its sixteenth session.

Letter to: MR. HALLDÓR THORGEIRSSON
Chair
Subsidiary Body for
Scientific and Technological Advice
UNFCCC

Letter from: Technology and Economic Assessment Panel (TEAP)

Dated: 10 October 2002

To: SBSTA-17

We are pleased to respond to the invitation of the Subsidiary Body for Scientific and Technological Advice (SBSTA) inviting the Technology and Economic Assessment Panel of the Montreal Protocol (TEAP) to collaborate on assembly of information on hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs). The Parties to the Montreal Protocol have previously encouraged and authorised the TEAP to collaborate with the Intergovernmental Panel on Climate Change (IPCC) and TEAP welcomes the opportunity to continue this joint work.

At its June 2002 sixteenth session, SBSTA invited the IPCC and the TEAP (in consultation with other organisations such as UNEP) to consider the modalities, feasibility, resource implications and timing of providing an information package on hydrofluorocarbons and perfluorocarbons, covering three broad areas as specified in document FCCC/SBSTA/2002/L12. In asking for this collaboration, SBSTA-16 requested that:

- (a) This information package should not duplicate current efforts by those organizations.
- (b) It is within the mandate of those organizations.
- (c) It builds also upon the information already provided, is cost-efficient, and does not lead to the creation of any new reporting requirements for Parties.

A representative from the UNFCCC Secretariat presented the full text of the SBSTA-16 request to the Parties to the Montreal Protocol at their July 2002 OEWG Meeting in Montreal. At that time, the TEAP emphasized the importance for many technical issues for the Montreal Protocol in the SBSTA request and also confirmed to the Montreal Protocol Parties TEAP's willingness to co-operate in preparing such an information package.

The IPCC Bureau (in its meeting in August 2002) directed the IPCC to work with experts from TEAP to prepare a submission to SBSTA. The summary of the work to be carried out for an IPCC special report has been drafted by both the responsible IPCC co-chairs and the TEAP co-chairs. It can be found in the IPCC response to SBSTA-17. The TEAP refers to the document submitted by IPCC to SBSTA-17 (via the UNFCCC Secretariat) and would like to mention explicitly that it supports:

- ☐ The description of the specifics of the tasks to be performed and which procedures apply;
- ☐ The way of preparing this Special Report, including preference for option (2) in the IPCC document;
- ☐ The setting up of an IPCC/TEAP Steering Committee;
- ☐ The possible timetable for dealing with matters raised by SBSTA as set out in the IPCC document.

In the IPCC document submitted, the IPCC mentions that it cannot contribute to a study on the global supply and demand of HFCs, which would result in certain availability of HFCs to the developing countries. TEAP could endeavour to carry out this study independently. Such an analysis could draw upon standard demand-based scenario methodology, with updated information on emission release rates and times (e.g. when used in refrigeration, air conditioning and insulating foam where emissions occur

during manufacture, use and disposal), possibilities for recycling and other technical considerations. The TEAP co-chairs recommend including this material as a part of the Special Report. However, this TEAP study covering part (c) could prove to be not feasible or not deemed appropriate for the Special Report, e.g., due to lack of reliable data so that extrapolations to derive HFC production capacities will be particularly inaccurate. In that case the TEAP will report its findings in a short, separate memo, not related to the IPCC Special Report.

The TEAP Co-chairs will brief the Ozone Secretariat and the Montreal Protocol Parties of the developments regarding the issues described here through to February 2003 and will also seek support from the Montreal Protocol Parties for pursuing option (2) in the IPCC document as mentioned above.

The TEAP co-chairs would also like to call SBSTA's attention to the following. Related to the TEAP assessment of the availability of HFCs as mentioned above, the TEAP has already been requested to make an in-depth assessment of the HCFC availability in developing countries in 2003. This will include an analysis of production and consumption patterns of HCFCs as well as an analysis of the alternatives which may influence the availability of HCFCs. It will also include an analysis of the suitability of HFCs and HFC alternatives to replace HCFCs, including all aspects such as energy efficiency, LCCP, health and safety, containment, as well as many other aspects. This would imply that TEAP's expertise may be supportive to the development of the above mentioned information package requested by SBSTA-16. This 2003 TEAP report will also emphasise the interlinkages between the information package described here to be developed by IPCC --with TEAP input-- and the analysis of climate related replacement of ozone depleting substances which is a side-effect of TEAP's HCFC availability study.

Furthermore, TEAP has developed new resource material within the framework of its 2002 assessment of all relevant developments in sub-sectors using HFCs, PFCs and their alternatives, for the purpose of phasing out ozone depleting substances. Information from existing TEAP assessments can therefore also be supportive of the development of the information package requested by SBSTA-16.

Summary

The TEAP is pleased to receive SBSTA's request to the IPCC and the TEAP for a balanced scientific and technical information package in the form of a Special Report on the relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system.

This response refers to the submission by IPCC to SBSTA-17 and confirms that the TEAP supports both the way the issues are described and the strategy and timetable for dealing with matters in a considered and co-ordinated way by IPCC and the TEAP. TEAP is very much interested in co-operating with the IPCC in the drafting of the Special Report.

Should SBSTA so require, the approach outlined here can be the basis for proceeding with cooperation and will then be discussed by the Parties to the Montreal Protocol at their November meeting in Rome.

STEPHEN O. ANDERSEN
LAMBERT KUIJPERS

Co-chairs UNEP Technology and Economic Assessment Panel under the Montreal Protocol

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