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Ad Hoc Working Group of Legal
and Technical Experts for the
Elaboration of a Global Framework
Convention for the Protection of
the Ozone Layer

Second part of the second session

Geneva, 11-15 April 1983

REPORT OF THE WORKING GROUP

INTRODUCTION

1. In accordance with the recommendation of the Working Group at the first part of its second session (UNEP/WG.78/8, para. 41 (g)), the second part of the session was held at the Palais des Nations, Geneva, from 11 to 15 April 1983.

I. ORGANIZATIONAL MATTERS

A. Opening

2. The second part of the second session was opened on behalf of the Executive Director of UNEP by the Assistant Executive Director, Office of the Environment Programme. He expressed the hope that the Working Group would make considerable progress towards the completion of a draft convention, and indicated the UNEP secretariat's particular interest in the outcome of the deliberations regarding the responsibility for servicing the convention (article 7) and how to avoid the multiplication and overlapping of technical bodies in the context of article 8.

B. Attendance

3. The second part of the second session was attended by experts from Argentina, Australia, Belgium, Canada, Chile, Colombia, Denmark, Dominican Republic, Egypt, El Salvador, Finland, France, Germany, Federal Republic of, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, Thailand, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United Republic of Cameroon, United States of America, Venezuela and Yugoslavia, and by an observer from Poland. Representatives of The World Health Organization, The World Meteorological Organization, The European Economic Community, The Organization for Economic Co-operation and Development, and an observer from the International Union for Conservation of Nature and Natural Resources, also attended.

C. Election of officers

4. At the opening meeting, the Working Group, in the absence of the Chairman and Vice-Chairman from the first part of the session, unanimously elected Mr. Willem J. Kakebeeke (Netherlands) as Chairman for the second part of the second session. At the second meeting it elected Mr. W. Hanafi (Egypt) as Vice-Chairman and Mr. Taka Hiraishi (Japan) as Rapporteur to replace the previous Rapporteur, who had resigned.

D. Organization of work

5. At the opening of the meeting, the Working Group agreed that the bulk of its work at the second part of the second session would take place in an informal working group of the whole, the results of whose deliberations, in the form to the extent possible of agreed texts, would be communicated to the Working Group, meeting in formal session, for discussion and decision as appropriate.

6. At the second meeting, the Working Group established an informal technical working group to work on the content of possible annexes on (a) research and monitoring, (b) information exchange and (c) list of substances capable of modifying stratospheric ozone.

7. The Working Group agreed to begin its work by completing the second reading of the draft convention, beginning with article 9.

8. Prior to the commencement of deliberations on the draft convention, the UNEP secretariat informed the Working Group of the outcome of the sixth session of the Co-ordinating Committee on the Ozone Layer, and drew attention to the executive summary of its recommendations and its scientific and technical advice to the working group.

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II. CONSIDERATION OF THE DRAFT CONVENTION

A. Second reading (Continued)

9. During the informal deliberations devoted to the second reading, agreement or provisional agreement was reached on articles 9, 10, and 15-22 (now 14-21) subject to reservations and/or comments as noted below. Former article 11 was deleted. A large measure of agreement was reached on a rewording of former article 12 (now 11), but the issue of whether the phrase regarding the content of annexes should be formulated in terms of inclusion or exclusion was left unresolved. Progress was also made regarding former article 13 (now 12), though agreement was not reached, and a new alternative was added to former article 14 (now 13). The text of all these articles as it resulted from the discussions appears in annex I to the present report.

10. There was general agreement that, in the absence of consensus regarding the need for an content of protocols, all references to protocols should be left between brackets. Reference was made to the need to state explicitly the link between the convention itself and any protocol to it. In that connexion, an additional article for inclusion in the draft convention was proposed: it appears between brackets, as article 16 bis, in annex I to the present report.

11. Paragraph 3 of article 9 was deleted on the understanding that its substance would be incorporated in a draft resolution to be submitted for adoption at the same time as the draft convention.

12. The United Kingdom expressed a reservation regarding the replacement of "a diplomatic conference" in article 9, paragraph 2 and 10, paragraph 1 by references to an extraordinary meeting of the Conference of Contracting Parties.

13. The representative of the European Economic Community expressed a reservation regarding articles 16 (now 15), paragraph 2, and 17 (now 16), paragraph 2, particularly with respect to the qualification that a majority of member States of regional economic integration organizations should be parties to the Convention and to the requirement for declaration of competence and notification of change in its extent. In the latter respect, he also entered a reservation regarding article 21 (now 20), paragraph 2 (f).

14. In addition to the agreed text of article 18 (now 17), it was proposed that a paragraph should be added reading:

"4. For the purposes of paragraphs 1 and 2, any instrument deposited by an organization referred to in article 15 shall not be counted as additional to that deposited by a member State of such organization."

15. It was agreed that article 20 bis, as contained in document UNEP/WG.78/10 (now 19 bis) should be discussed together with article 6.

16. The informal technical working group prepared agreed drafts of annexes I and II, the former dealing with research and systematic observation, and incorporating the list of substances capable of modifying the ozone layer, and the latter dealing with information exchange. The United Kingdom expert expressed a reservation regarding the need for and contents of annexes to the convention.

B. Proposed annex concerning measures to control,
limit and reduce CFC emission and use

17. The expert from Sweden, introducing the proposal on behalf of the Nordic countries, said that the UNEP Governing Council, when deciding to initiate work for a global framework convention and establishing the Working Group, had stressed the desirability of such a convention covering inter alia the development of appropriate strategies and policies for limiting and gradually reducing emissions of ozone depleting substances. That decision created an obligation for the Group to develop such strategies - not only to co-ordinate research efforts. The Swedish expert stated that despite the scientific uncertainties, scientists generally agreed that according to calculations there would be a depletion of the ozone layer, due to CFCs, although the calculated percentage might differ from time to time. Those calculations were based on present levels of emissions; evidence also showed that those emissions might increase considerably. Several Governments had already taken measures, mandatory or on a voluntary basis, to reduce the use of CFCs primarily in aerosol sprays, but the benefits achieved could be nullified by increased emissions elsewhere. Furthermore such reduced use might be outweighed by a growth in non-aerosol uses. In those areas the finding and implementation of substitutes or practical and economically feasible technologies would take considerable time, considering also the time needed for adjustment to avoid undesirable economic effects. The proposed annex deliberately refrained from defining essential uses, but requested each party to give information of which uses it considered essential. That would allow a flexible implementation and at the same time encourage the exchange of experience. In conclusion, the Swedish expert stressed that the proposal should be considered as a basis for further discussion of the issue.

18. The proposal was welcomed as a useful basis for discussion, and considerable support was expressed for its purpose. A number of experts considered, however, that it could only be regarded as a proposal for a protocol, since its contents were of a regulatory nature. Such a text, some felt, should only be discussed once the draft convention and its integral annexes had been finalized.

19. It was pointed out that a regulatory text must take full account of scientific and technological considerations and be subject to scientific examination by experts; in that connexion, reference was made to the executive summary of the report of the Co-ordinating Committee on the Ozone Layer as containing relevant material. One expert said that the current state of knowledge of the subject was not such as to permit regulatory measures, and another stressed the need to proceed cautiously, in the light of changing estimates of ozone depletion. Reference was also made to the risk of CFCs being replaced by still more harmful substances.

20. Some experts stated that the obligation imposed in article 1 of the proposal was too stringent, and advocated a more flexible wording. Some also stated that the measures referred to should be specified as being of a precautionary nature, and cited by way of example the measures in force for a number of years within the framework of the European Economic Community.

21. The view was expressed that articles 1 and 2 of the proposal should in fact be in separate protocols. It was also pointed out that some provisions of the proposed text, particularly in articles 2 and 3, were already partly covered in the draft convention or its annexes. Experts from two countries indicated a desire to have information on production, etc., as requested in article 3, aggregated through a third party, or through an organization such as the European Economic Community, in order to preserve confidentiality.

22. The authors of the proposal indicated that they would welcome further comments, in the interval before the next session of the Working Group, which might enable them to improve its formulation.

C. Third reading

23. The third reading, covering articles 1-8, the second reading of which had been completed at the first part of the session, also took place in an informal working group of the whole.

24. The informal technical working group was requested to consider the definitions contained in article 1. In the light of its oral report, the definition of the ozone layer was amended to read "'The ozone layer' means the total ozone above the earth's surface, most of which is found above the planetary boundary layer, in the upper troposphere and the stratosphere". Some experts said that, while they did not anticipate difficulties with that wording, they would need time for consultations before they could indicate support for it. It was noted that the definition should exclude ozone produced by local and regional pollution; whether that should be specifically stated in the definition itself or in the Final Act approved when the convention was adopted was left open.

25. Paragraph 2 of article 1 was left unchanged. One delegation suggested that in view of the reservations expressed by others concerning the exact meaning of the phrase "taken over-all", the phrase "which are ... deleterious", might be replaced by "whose results are deleterious".

26. Paragraph 3 of article 1 was deleted on the understanding that throughout the draft convention and associated texts, "monitoring" would be replaced by "systematic observations".

27. Regarding article 2, the Working Group's deliberations were based on the text appearing in document UNEP/WG.78/10 and on a text submitted by the United States of America. One expert proposed that alternative 2 (UNEP/WG.78/10) should remain in the text of the draft convention for further consideration alongside the United States proposal, which contained inaccuracies regarding the aims of the convention. Another expert also indicated his preference for alternative 2. Agreement was reached in principle on the inclusion in the United States text of a qualification relating to the means available to countries and their abilities; the brackets in this instance reflect not only alternative wordings, but the various opinions as to the final placement of

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the phrase. The expert from Thailand expressed the view that the phrase "and using for this purpose the best practical means at their disposal and in accordance with their capabilities" must be retained in article 2. Another expert noted the very great importance of the phrase, and proposed that it be inserted in paragraph 1. Some participants were of the view that it, or the alternative wording, could more appropriately be incorporated in annexes and/or protocols dealing with specific measures than in the body of the convention. Others disagreed with that view. A number of experts felt that it should be so located as to exclude sub-paragraphs 2 (c) and (d) of alternative 1 from the qualification it introduced.

28. Some experts pointed to the inconsistency of stating the basic aim of the convention as being to protect human health and the environment, rather than, as its title indicated, the ozone layer, changes in which would have harmful consequences for human health and the environment: if that was the case, the whole text would require recasting.

29. An expert from Japan said that paragraph 2 (b) should be placed between brackets, in view of the lack of scientific evidence justifying international regulatory action at present. Another expert stated that sub-paragraph 2 (c) was out of place in an article on general obligations.

30. The expert from France called for the deletion of paragraph 3 on the grounds that it was superfluous. Other experts considered that it would be more appropriately located in annexes or protocols dealing with specific measures. Others strongly supported its retention in the convention.

31. No agreement was reached regarding article 3. On the related annex prepared by the technical working group, a number of amendments were proposed and are incorporated between brackets in the text annexed to the present report (see annex II). It was agreed that the draft of the annex would serve as the basis for further discussion, in the course of which particular attention should be given to: the suggestion that paragraphs 1 and 2 should be deleted and their substance incorporated at appropriate points in the body of the convention; the possibility of presenting the list of substances as an appendix to the annex; the desirability of explanatory notes on the substances; and the advisability of dealing with socio-economic research, if at all, in a separate annex.

32. Article 4 was not discussed.

33. Article 5 was retained in its present form.

34. Article 6, paragraph 1 was agreed to in the revised form annexed to the present report (see annex II). some of the brackets in paragraph 2 were removed, and an additional proposed amendment was incorporated between brackets. The remainder of article 6 was not discussed.

35. Articles 7 and 8 were not discussed.

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III. RECOMMENDATIONS FOR FUTURE WORK

36. The Working Group makes the following recommendations to the Executive Director:

(a) Following the eleventh session of the Governing Council, and subject to its approval and the availability of funds, further sessions of the Working Group should be convened as necessary for the completion of its work on the draft global framework convention for the protection of the ozone layer, the first such session to be convened in the last third of 1983, at a place to be determined and at a time that does not coincide with the holding of any other legal experts' meeting in which UNEP is involved;

(b) The secretariat should prepare a second revised text of the draft convention in the light of the Working Group's deliberations at the second part of its second session, with commentary as required;

(c) The second revised draft, together with the Working Group's report on the second part of its second session, should be transmitted to States together with the invitation to the Working Group's third session; states should be invited to comment on the proposed annex concerning regulation and control of CFCs submitted by Finland, Norway and Sweden;

(d) Special efforts should be made to encourage participation by more countries in the work of the Group;

(e) Increased participation by technical experts in the sessions of the Group should be encouraged;

(f) Governments should be invited to consider hosting future sessions of the Working Group;

(g) In future, informal technical working groups should be provided with interpretation facilities;

(h) Special attention should be paid to timely and accurate translation of documentation.

IV. ADOPTION OF THE REPORT

37. In response to a request by the Chairman, the Working Group agreed that, should it prove necessary owing to lack of time, it would consider the later parts of the draft report on its work at the second part of the second session in English only. A number of experts indicated that, while exceptionally consenting to such a course, they would have to reserve their final approval until the report appeared in the respective official languages. One of them reserved the right to request translation should difficulties arise.

38. Subsequently, on 15 April 1983, the Working Group adopted the present report, subject to the incorporation of amendments approved during the consideration of the draft report, of which present paragraphs 27-30 were before it in English only.

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V. CLOSURE OF THE SESSION

39. The representative of the Executive Director, speaking on his behalf, thanked the Government of the Netherlands for hosting the second part of the session under such excellent conditions. Following the customary exchange of courtesies, the Chairman then declared the session closed.

Annex I

TEXTS RESULTING FROM THE SECOND READING

Article 9

ADOPTION OF PROTOCOLS

1. The Conference of the Contracting Parties may adopt, at an extraordinary meeting, protocols to this Convention pursuant to the provision of article 2, paragraph [2][3].
2. Such a meeting for the purpose of adopting protocols shall be convened by the secretariat at the written request of any Contracting Party, provided that within six months from the date of communication by the secretariat to the Contracting Parties of the fact of such a request, it is supported by at least one third of the Contracting Parties.

Article 10

AMENDMENT OF THE CONVENTION [OR PROTOCOLS]

1. Any Contracting Party to this Convention [or to any protocol thereto] may propose amendments to this Convention [or to such protocol] [or any protocol thereto]. Such amendments shall take due account, inter alia, of relevant scientific and technical considerations. The secretariat shall circulate such proposals to all Contracting Parties. Amendments shall be adopted by the Conference of the Contracting Parties at an extraordinary meeting which shall be convened by the secretariat at the request of at least [one-third] [two-thirds] of the Contracting Parties.
2. The text of any proposed amendment shall be communicated to the Contracting Parties and the signatories by the secretariat ... days before such an extraordinary meeting.
3. Amendments to this Convention [or any protocol] shall be adopted by [consensus] [a two-thirds majority vote] of the Contracting Parties to the Convention [or to such protocol] [present and voting at the meeting] and shall be submitted by the Depositary for acceptance by all Contracting Parties to the Convention [or to such protocol]. [For these purposes "Contracting Parties present and voting" means Contracting Parties present and casting an affirmative or negative vote.]
4. Acceptance of amendments shall be notified to the Depositary in writing. Amendments adopted in accordance with paragraph 2 of this Article shall enter into force between Contracting Parties having accepted such amendments on the ninetieth day following the receipt by the Depositary of notification of their acceptance by at least three-fourths of the Contracting Parties to this Convention [or to the protocol concerned]. Thereafter the amendments shall enter into force for any other Party thirty days after that Party deposits its instrument of acceptance of the amendments.

5. Following the entry into force of an amendment to this Convention [or to any protocol], any new Contracting Party to this Convention [or such protocol] shall become a Contracting Party to the instrument as amended.

Article 11

ADOPTION AND AMENDMENT OF ANNEXES

1. The annexes to this Convention or to any protocol shall form an integral part of this Convention or such protocol as the case may be[, and shall be reserved for scientific, technical and administrative matters] [They shall not deal with matters relating to regulatory and control measures].

2. Any Contracting Party may propose amendments to the annexes to this Convention [or to the annexes to any protocol] at the meeting referred to in article 6. Such annexes and amendments thereto shall take due account, inter alia, of relevant scientific and technical considerations.

3. [Except as may be otherwise provided in any protocol with respect to its annexes, the] [The] following procedure shall apply to the adoption and entry into force of amendments to annexes to this Convention [or annexes to a protocol]:

(a) Such amendments shall be adopted by [consensus] [a two thirds majority vote] of the Contracting Parties [present and voting [on the instrument in question] [at the meeting]]. The Depositary shall without delay communicate the amendments so adopted to all Contracting Parties and signatories;

(b) Any Contracting Party that is unable to approve an amendment to the annexes to this Convention [or to the annexes to any protocol] shall so notify the Depositary, in writing, within six months from the date of the circulation of the communication by the Depositary. The Depositary shall without delay notify all Contracting Parties of any notification received. A Contracting Party may at any time substitute an acceptance for a previous declaration of objection and the amendment shall thereupon enter into force for that Party;

(c) On the expiry of six months from the date of the circulation of the communication by the Depositary, the amendment to the annex shall become effective for all Contracting Parties to this Convention [or to any protocol concerned] which have not submitted a notification in accordance with the provision of subparagraph (b) above.

4. The adoption and entry into force of a new annex to this Convention [or to any protocol] shall be subject to the same procedure as for the adoption and entry into force of amendments to [annexes to] the Convention [or to any protocol], provided that, if any amendment to the Convention [or to the protocol concerned] is involved, the new annex shall not enter into force until such time as the amendment to the Convention [or the protocol concerned] enters into force.

[5. Apart from the procedures set out above, the amendments may be adopted by the simplified procedure referred to in article 12.]

[Article 12

AMENDMENT BY SIMPLIFIED PROCEDURE

1. A Contracting Party may, by written communication addressed to the secretariat, propose an amendment to annexes to this Convention [or to annexes to protocols thereto] to be adopted by a simplified procedure pursuant to the provisions of this article.
2. The secretariat shall circulate such communications to all Contracting Parties and signatories.
3. If, at any time within a period of six months thereafter, a Contracting Party objects to the proposal for the adoption of the amendment by simplified procedure, the proposal shall be considered rejected. The secretariat shall notify all Contracting Parties accordingly. If on the expiry of six months no Contracting Party has objected to the proposal for adoption by simplified procedure, the proposed amendment shall be considered adopted. The secretariat shall notify all Contracting Parties accordingly.]

Article 13

SETTLEMENT OF DISPUTES

Alternative 1

The Contracting Parties to this Convention shall settle any dispute between them concerning the interpretation or application of this Convention [and any protocol thereto] by peaceful means in accordance with Article 2, paragraph 3 of the Charter of the United Nations and, to this end, shall seek a solution by the means indicated in Article 33, paragraph 1 of the Charter.

Alternative 2

1. In the event of a dispute between Contracting Parties concerning the interpretation or application of this Convention [and any protocol thereto], the Parties concerned shall seek a solution by negotiation. If the Parties concerned cannot reach agreement, they should seek the good offices of, or jointly request mediation by, a third Contracting Party, a qualified international organization or a qualified person.
2. Where the Parties concerned are unable to resolve their dispute through negotiation, or to agree on the measures as described above, the dispute shall, by common agreement, be referred to an ad hoc tribunal, to a permanent arbitration tribunal or to the International Court of Justice.

Alternative 3

In the event of a dispute arising between two or more Contracting Parties to this Convention [and any protocol thereto] concerning the interpretation or application of the Convention, the Parties to the dispute shall seek a solution by negotiation or by any other method of dispute settlement acceptable to them.

Alternative 4

1. Any dispute between two or more Contracting Parties concerning the interpretation or application of the Convention [or Protocols to which they are party], if settlement by negotiation or by other peaceful means has not been possible, shall be submitted by common agreement to the International Court of Justice or upon the request of one of them to arbitration. Arbitration procedures, unless the parties to the dispute decide otherwise, shall be in accordance with annex ... of this Convention.
2. Any amendment to that annex shall be proposed and adopted, and shall enter into force, in accordance with the procedures set out in article 10.

Article 14

SIGNATURE

1. This Convention shall be open for signature at _____ from _____ to _____ by any State and by regional economic integration organizations, constituted by sovereign States, which have competence in respect to the negotiation, conclusion and application of international agreements in matters covered by this Convention [and a majority of whose member States are signatories to this Convention].
2. In matters within their competence, such regional economic integration organizations may, on their own behalf, exercise the rights and fulfil the responsibilities which this Convention attributes to their member States. In such cases, the member States of these organizations shall not be entitled to exercise such rights individually.

Article 15

RATIFICATION, ACCEPTANCE OR APPROVAL

1. This Convention [and any protocol thereto] shall be subject to ratification acceptance or approval by any State and by the regional economic integration organizations referred to in article 14. Instruments of ratification, acceptance or approval shall be deposited with the Depositary.
2. This Convention [and any protocol thereto] shall also be subject to ratification, acceptance or approval by the organizations referred to in article 14 [if a majority of their member States are Contracting Parties to the Convention]. In their instruments of ratification, acceptance or approval, such organizations shall declare the extent of their competence with respect to the matters governed by the Convention [and the relevant protocols]. Subsequently, these organizations shall also inform the depositary of any substantial modification in the extent of their competence.
3. In matters within their competence, such regional economic integration organizations may on their own behalf, exercise the rights and fulfil the responsibilities which this Convention attributes to their member States. In such cases, the member States of these organizations shall not be entitled to exercise such rights individually.

4. In the fields of their competence, regional economic integration organizations shall exercise their right to vote with a number of votes equal to the number of their member States which are Contracting Parties to the Convention. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 16

ACCESSION

1. This Convention [and its protocols] shall be open for accession by any State and by the regional economic integration organizations referred to in article 14 from the date on which the Convention [or the protocol concerned] is closed for signature. The instruments of accession shall be deposited with the Depositary.

2. In their instruments of accession, the organizations referred to in paragraph 1 shall declare the extent of their competence with respect to the matters governed by the Convention [and the relevant protocol]. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

[Article 16 (bis)]

Relationship between the Convention and its protocols

1. No State or regional economic integration organization may become a Contracting Party to a protocol unless it is, or becomes at the same time, a Contracting Party to the Convention.

2. Decisions concerning any protocol shall be taken only by the Contracting Parties to the protocol concerned.]

Article 17

ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the instrument of ratification, acceptance, approval or accession.

[2. Any protocol to this Convention, except as otherwise provided in such protocol, shall enter into force on the _____ day following the date of deposit of the _____ instrument of ratification, acceptance or approval of such protocol or accession thereto.]

[3.] For each Contracting Party which ratifies, accepts, approves this Convention or accedes thereto after the deposit of the instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the thirtieth day after the date of deposit by such Contracting Party of its instrument of ratification, acceptance, approval or accession, subject to paragraph 1.

[Article 18

RESERVATIONS

No reservations or exceptions may be made to this Convention [or to any protocol thereto] unless expressly permitted by [other articles of] this Convention.]

Article 19

WITHDRAWAL

1. At any time after [three] [five] years from the date on which this Convention has entered into force with respect to a Contracting Party, that Contracting Party may withdraw from the convention by giving written notification to the Depository.
2. Except as may be provided in any protocol to this Convention, at any time after [three] [five] years from the date on which such protocol has entered into force with respect to a Contracting Party, that Contracting Party may withdraw from the protocol by giving written notification to the Depository.
3. Any such withdrawal shall take effect upon expiry of [six months] [one year] after the date of its receipt by the Depository, or on such later date as may be specified in the notification of the withdrawal.
- [4. Any Contracting Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it is a party.]

[Article 19 bis */

In order to take account of advances in scientific knowledge regarding the ozone layer, the Contracting Parties shall consider at a meeting of the Conference of Parties the need to review the Convention.]

Article 20

DEPOSITARY

1. The Secretary-General of the United Nations shall assume the functions of Depository of this Convention [and its protocols] and amendments thereto.
2. The Depository shall inform the Contracting Parties in particular:
 - (a) Of the signature of this Convention [and of any protocol thereto], and of the deposit of instruments of ratification, acceptance, approval or accession in accordance with the provision of articles 15 and 17;

*/ To be discussed together with article 6 (see annex II).

(b) Of the date on which the Convention [and any protocol thereto] will come into force in accordance with the provisions of article 17;

(c) Of notification of withdrawal made in accordance with the provisions of article 19;

(d) Of amendments adopted with respect to the Convention [and any protocol], their acceptance by the Contracting Parties and their date of entry into force in accordance with the provisions of article 10;

(e) Of the adoption of new annexes and of the amendment of any annex in accordance with the provisions of article 11;

(f) Of notifications by regional economic integration organizations of the extent of their competence with respect to matters governed by this Convention [and relevant protocols], and of any modifications thereto.

Article 21

AUTHENTIC TEXTS

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect have signed this Convention.

Done at, this



Annex II

TEXTS RESULTING FROM THE THIRD READING

Article 1

DEFINITIONS

For the purpose of this Convention:

1. "The ozone layer" means the total ozone above the earth's surface, most of which is found above the planetary boundary layer, in the upper troposphere and stratosphere.
2. "Adverse effects" means changes in the physical environment or biota, including changes in climate, which are, taken over-all, deleterious to human health or to the composition, resilience and productivity of natural and managed ecosystems.

Article 2

GENERAL OBLIGATIONS

Alternative 1 */

1. The Contracting Parties' shall [, either individually or jointly,] take [all] appropriate [precautionary] measures [, subject to review,] in accordance with the provisions of this Convention [and those protocols in force to which they are party] to protect human health and the environment against adverse effects resulting from human activities [which modify [or are likely to modify] the ozone layer] [should it be found that these activities have or are likely to have adverse effects by reason of their modification of the ozone layer]. [, [and] using for this purpose the best practical means at their disposal and in accordance with their capabilities] [, and] in accordance with the means at their disposal and their capabilities];

2. To this end the Contracting Parties shall [, within the framework of the Convention]:

(a) Co-operate by means of systematic observations, research and information exchange in order to better understand and assess the effects of human activities on the ozone layer and the effects on human health and the environment from modification of the ozone layer;

[(b) Co-operate in taking appropriate legislative or administrative measures and in [harmonizing] [endeavouring to harmonize] policies to [control] [limit, reduce [and] [or] prevent] [human activities under their jurisdiction [or control]] [should it be found that these activities] [that] [have] [release of substances which cause] [or are likely to have] [significant] adverse effects [by reason of their] [resulting from] [modification of the ozone layer];]

*/ It was also proposed that paragraphs 2 (c) and (d) be placed in a separate paragraph.



(c) Co-operate in the formulation [and] [with a view to] adoption of [appropriate] protocols and annexes prescribing agreed measures, procedures and standards for the implementation of this Convention;

(d) Co-operate with competent international bodies to implement effectively this Convention [and those protocols to which they are a party].

[3. The provisions of the present convention shall in no way affect the right of Contracting Parties to adopt stricter measures than those adopted under paragraphs 1 and 2, nor shall they affect stricter measures already taken by a Contracting Party.]

Alternative 2 */

1. The Contracting Parties shall, either individually or jointly, take all appropriate measures to protect the ozone layer and to that end limit and gradually reduce and prevent activities under their jurisdiction and control that may have adverse effects resulting from modifications of the ozone layer, using for this purpose the best practicable means at their disposal and in accordance with their capabilities.

2. To this end the Contracting Parties shall:

[a] co-operate by means of systematic observations, research and information exchange in order to better understand and assess the effects of human activities on the ozone layer and the effects on human health and the environment from modifications of the ozone layer.

3. The Contracting Parties shall co-operate in the formulation and adoption of protocols and annexes prescribing agreed measures, procedures and standards for the implementation of this Convention.

4. The Contracting Parties shall co-operate with competent international bodies to implement effectively this Convention and those protocols to which they are a party.

5. Within the framework of this Convention, the Contracting Parties shall co-operate, by means of systematic observations, research, exchange of information and transfer of technology, in developing and harmonizing policies, strategies and measures for limiting, reducing [and] [or] preventing the release of substances which cause or are likely to cause adverse effects on the ozone layer.

*/ In the form preferred by the expert who proposed that this alternative be retained.

Article 3 */

RESEARCH AND SYSTEMATIC OBSERVATIONS

1. The Contracting Parties undertake, as appropriate, to initiate and co-operate in, directly or through competent international bodies, the conduct of research generally on:

(a) The physical, chemical, and dynamic processes that may affect the ozone layer;

(b) The human health and other biological effects deriving from modifications of the ozone layer, particularly those resulting from changes in UV-B radiation;

(c) Climatic effects deriving from modifications of the ozone layer;

(d) Substances, practices, processes and activities that may affect the ozone layer, and their cumulative effects;

(e) Alternative substances and technologies;

(f) Related socio-economic matters;

as further elaborated in Annex I.

2. The Contracting Parties undertake to promote or establish as appropriate, directly or through competent international bodies and taking fully into account relevant on-going activities at both the national and international levels, joint or complementary programmes for systematic observation of the state of the ozone layer and other relevant parameters, and to provide the resulting data to world data centres in a regular and timely fashion, as elaborated in annex I.

3. The Contracting Parties undertake to co-operate, directly or through international bodies, in ensuring the collection, availability and validation of observational data.

Article 4 */

SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION

1. The Contracting Parties undertake, taking fully into account the relevant on-going programmes at both the national and international levels, and that carried out under the World Plan of Action on the Ozone layer, to promote or establish, directly or through the competent international bodies, joint or complementary programmes for data analysis and interpretation concerning the state of the ozone layer and the [causes, extent, trends and] effects of its possible modification.

*/ No agreement was reached on this article.

*/ This article was not discussed.

[2. The Contracting Parties shall facilitate and encourage the exchange of legal, scientific and technical information relevant to this Convention, particularly information related to:

(a) Activities undertaken or planned with a view to limiting and reducing activities and emissions of substances that modify or are likely to modify the ozone layer;

(b) Other activities under their jurisdiction or control that modify or are likely to modify, the ozone layer.

3. The Contracting Parties shall co-operate, in accordance with the provisions of annex II to this Convention, and taking into account in particular the needs of the developing countries, in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge in fields relating to reduction of emissions that modify, or are likely to modify, the ozone layer, particularly through:

(a) Facilitation of licensing and of sale of alternative technologies to other countries;

(b) Provision of information on alternative technologies and equipment, and supply of special manuals or guides to them;

(c) Exchange of necessary equipment for systematic observations and facilities needed to supplement existing, systematic observation systems;

(d) Appropriate training of scientific and technical personnel;

(e) Ensure intercalibration of observational means and methods with a view to generating comparable or standardized data called for in specialized protocols or annexes]

[2. The Contracting Parties shall facilitate and encourage the exchange of legal, scientific and technical information relevant to this Convention as specified in the annex or annexes thereto and protocols to which they are a party.]

Article 5

TRANSMISSION OF INFORMATION

The Contracting Parties shall transmit through the Secretariat to the Conference of Contracting Parties information on the measures adopted by them in implementation of this Convention [and annexes and protocols thereto,] [and of protocols to which they are parties,] in such form and at such intervals as the Conference of Contracting Parties may determine.

Article 6 */

CONFERENCE OF THE CONTRACTING PARTIES

1. A Conference of the Contracting Parties is hereby established. The first meeting of the Conference of the Contracting Parties shall be convened by the secretariat designated under article 7 not later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Contracting Parties shall be held at regular intervals to be determined by the Conference at its first meeting. Extraordinary meetings of the Conference of the Contracting Parties may be held at such other times as may be deemed necessary by the Conference, or at the written request of any Contracting Party, provided that such a request is supported by at least one third of the Contracting Parties.

2. At its first meeting, the Conference of the Contracting Parties shall agree upon and adopt rules of procedure and financial rules for itself and for any subsidiary bodies established [under article 8] [or] [by this article], as well as financial provisions governing the functioning of the secretariat designated under article 7. [These rules and provisions shall ensure that no financial contributions shall be imposed on a Contracting Party without its agreement.]

3. The Conference shall keep under continuous review the implementation of this Convention, and, in addition, shall:

(a) Consider [periodic reports] [information] submitted through the secretariat in accordance with article 5 as well as reports submitted by [[the scientific-technological advisory body/mechanisms] established under article 8 of this Convention and by the scientific, technical or legal working groups referred to in subparagraph (h) below;] [such mechanisms, groups, bodies, committees and organizations referred to in subparagraphs (f) and (g) below;]

(b) Review of the state of the [latest scientific information on the] ozone layer;

(c) [Define common policies, strategies and measures, in accordance with the provisions of article 2, for minimizing the release of substances causing or likely to cause modification of the ozone layer, and make recommendations on any other measures relating to this Convention;]

(c) [Consider co-operative activities to be undertaken within the framework of the Convention and its protocols or annexes;]

(d) [Adopt programmes and measures, in accordance with the provisions of article 2, for minimizing the release of substances causing or likely to cause modification of the ozone layer, as well as programmes for research, systematic observations, scientific and technological co-operation, the exchange of information and the transfer of technology and knowledge in accordance with the provisions of articles 3 and 4;]

*/ Paragraphs 3 and 4 of this article were not discussed.

(d) [Make recommendations regarding the adoption of protocols or amendments to this Convention or its protocols in accordance with article 10;]

[(e) [Consider and adopt amendments to this Convention [as well as to the protocols and/or annexes thereto] as laid down in article(s) 10 and 11;]

[(f) Consider the need for new protocols;]

[(g) [Consider and] adopt [review and amend] annexes to this Convention as laid down in [in accordance with] article 11;]

[(h) Establish such [mechanisms] [scientific, technical or legal] [scientific, technical, socio-economic or legal] working groups as are deemed necessary for the implementation of this Convention;]

(i) Seek, where appropriate, the services of competent international bodies and scientific committees, in particular the World Health Organization, [and] the World Meteorological Organization [and the Co-ordinating Committee on the Ozone Layer], in scientific research, systematic observations and other activities pertinent to the objectives of this Convention, and make use as appropriate, of information from such bodies and committees;

(j) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention [and the protocols thereto].

4. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not party to this Convention, may be represented at meetings of the Conference of the Contracting Parties by observers who shall have the right to participate in the debate without the right to vote. Any body or agency, whether national or international, governmental or non-governmental, [technically] qualified in fields relating to the protection of the ozone layer, which has informed the secretariat of its wish to be represented at a meeting of the Conference as an observer, may be admitted unless [at least one third of] the Contracting Parties present object. Once admitted, the observers of such bodies or agencies shall have the right to participate in the debate without the right to vote [at that meeting]. The participation of [a non-governmental body or agency] [an observer] may be limited to parts of the meeting that are considered to be directly relevant to its work.

Article 7 */

SECRETARIAT

1. The Contracting Parties designate the United Nations Environment Programme as responsible for carrying out the following secretariat functions [taking into account the organizational and financial possibilities of UNEP] [until the first ordinary meeting of the Conference of the Parties held pursuant to article 6. These functions shall be]:

*/ This article was not discussed.

(a) To arrange for and service the meeting of the Contracting Parties as provided for in articles [6], [8], [9 and 10];

(b) To arrange for and service the meetings of [the advisory body established under article 8 and] [scientific, technical, socio-economic or legal] working groups established under article 6;

(c) To transmit the information received in accordance with article 5 as well as information derived from meetings of bodies established under articles [6 and 8];

[(d) To invite the attention of the Contracting Parties to any matter pertaining to the purposes of this Convention;]

[(e) To perform the functions assigned to the Secretariat by any protocols to this convention;]

(f) To prepare [administrative] reports on the activities carried out by the Secretariat in the implementation of this convention and present them to the conference of the Contracting Parties;

(g) To ensure the necessary co-ordination with other relevant international bodies, and in particular to enter into such administrative and contractual arrangements as may be required for the effective discharge of the secretariat functions;

(h) To perform such other functions as may be determined by the Conference of the Contracting Parties.

[2. If the United Nations Environment Programme is no longer able to provide the Secretariat, the Conference of the Parties shall make alternative arrangements for the Secretariat.]

[2. The Contracting Parties shall, at the first ordinary meeting of the Conference of the Parties, make arrangements for a permanent secretariat.]

Article 8 */

ADVISORY BODY

Alternative 1

1. An Advisory Committee is hereby established consisting of [x of] the representatives of the Contracting Parties to this Convention. The selection of members, their terms of office, admission of observers, and approval of the procedures of the Committee will be provided for in the rules of procedure established under article 6.

*/ This article was not discussed.

2. The functions of the Committee shall be:

(a) To formulate recommendations for consideration by the Conference of the Parties;

(b) To facilitate the exchange of relevant legal, scientific and technical and socio-economic information related to actions that increase, limit, or reduce activities and emissions of substances that modify or are likely to modify the ozone layer;

[(c) To facilitate the development and transfer of technology and knowledge relating to the reduction of such emissions in implementation of article 4, paragraph 3;]

(d) To review and analyse the information and reports submitted in accordance with articles 4 and 5, and to request under the authority of the Conference of the Parties such additional information from the Contracting Parties as may be deemed necessary by the Committee to meet the responsibilities assigned to it by this Convention and the Conference of the Parties;

(e) To advise the Conference on the state of the ozone layer, the extent and trends of its modifications and possible resultant effects;

(f) To perform such other functions as may be deemed necessary by the Conference of the Parties.

3. The Committee shall seek as appropriate from the Co-ordinating Committee on the Ozone Layer [and other bodies] scientific, socio-economic and technological advice, as well as assessments of the state of the ozone layer, the extent and trends of its modification, and possible resultant effects.

4. The Committee shall utilize [ad hoc] [standing] working groups of experts on scientific, legal and socio-economic aspects of the protection of the ozone layer [and on the transfer of technology], and shall arrange for or undertake, in accordance with the financial rules, special scientific, legal and technical studies, as required to meet the responsibilities given to it by this Convention [and any protocol in force] and by the Conference of the Parties.

Alternative 2

[1. The Conference of the Parties shall, under its rules of procedure and financial rules, provide for the necessary mechanisms to carry out its responsibilities under article 6 of this Convention.]

[1. The Conference of the Contracting Parties shall establish a committee consisting of representatives of the Contracting Parties and having the function of advising the Conference on all matters of relevance to the implementation of the Convention. The selection of members, admission of observers, and approval of the procedures of the Committee shall be provided for in the rules of procedure established under article 6.]

2. In addition to [such mechanisms] [that Committee], the Conference of the Parties shall request from the Co-ordinating Committee on the Ozone Layer [and other bodies] scientific, socio-economic and technological advice as well as assessment of the state of the ozone layer, the extent and trends of its modification, and possible resultant effects.

Annex III

PROPOSED ANNEXES TO THE CONVENTION REGARDING WHICH
A DECISION IS STILL PENDING

ANNEX I TO THE CONVENTION. RESEARCH AND SYSTEMATIC OBSERVATIONS */

1. Recognizing the importance of research and systematic observations to the protection of the ozone layer, and of international scientific assessments to the development of international scientific consensus, the Contracting Parties agree to support, individually, or collectively, research, systematic observations and scientific assessments appropriate to their [needs,] expertise, geography, and available resources.
2. Further recognizing that the major scientific issues are:
 - (a) modification of the ozone layer which would result in a change in the amount of solar UV-B radiation that reaches the earth's surface, with potential consequences for human health and ecological organisms and systems;
 - (b) modification of the vertical distribution of ozone, which could change the temperature structure of the atmosphere with potential consequences for weather and climate;
 - (c) direct modification of the thermal structure of the atmosphere due to the addition of gases that absorb infra-red radiation.
3. The Contracting Parties shall co-operate in:
 - (a) Conducting research and publishing in peer-reviewed literature information developed on understanding the physics and chemistry of the earth's atmosphere and of its susceptibility to change, in particular on the state of the ozone layer and on environmental and climatic effects which would result from changes in either the total column content or the vertical distribution of ozone on all time-scales;
 - (b) The assessment of research results and the development of recommendations for future research;
 - (c) The sharing of information on planned and on-going research, both governmental and private, to facilitate the co-ordination of research programmes so as to make the most effective use of available national and international resources;
 - (d) The development and implementation of multi-national satellite and ground-based global measurement systems;
 - (e) The exchange of scientific data including the emission data needed for research;
 - (f) Providing research and systematic observational data to World Data Centres in a regular and timely fashion.

*/ Text prepared by the informal technical working group and amended during the third reading of the convention.

4. Areas of research and systematic observation that the Contracting Parties recognize as important include:

(a) Research in the physics and chemistry of the atmosphere

- (i) Comprehensive theoretical models: further development of models which consider the interaction between radiative, chemical and dynamic processes; studies of the simultaneous effects of various man-made and naturally occurring species upon atmospheric ozone; interpretation of satellite and non-satellite measurement data sets; studies of the radiative effects of ozone and other trace species and their impact on climate; evaluation of trends in atmospheric and geophysical parameters, and the development of methods for attributing changes in these parameters to specific causes;
- (ii) Laboratory studies of: rate coefficients, absorption cross-sections, and mechanisms of tropospheric and stratospheric chemical and photochemical processes; spectroscopic data to support field measurements in all relevant spectral regions;
- (iii) Field measurements: understand the fluxes of key source gases from both natural and anthropogenic origins; atmospheric dynamics studies; simultaneous measurements of photochemically related species down to the planetary boundary layer using in situ and remote sensing instruments; the intercomparison of different sensors; obtaining three-dimensional fields of key atmospheric trace constituents, solar flux, and meteorological parameters; co-ordinated correlative measurements for satellite instrumentation;
- (iv) Instrument development, including: satellite and non-satellite sensors for atmospheric trace constituents, solar flux and meteorological parameters as required in 4 (a) (iii) and in 4 (c) on systematic observations;

(b) Research in health and biological effects

- (i) The relationship between human exposure to solar radiation, visible and ultra-violet, and the development of both non-melanoma and melanoma skin cancer, and the effects on the immunological system;
- (ii) Effects of UV-B, including the wavelength dependence, upon (a) agricultural crops, forests and other terrestrial ecosystems, and (b) the aquatic food web and fisheries;
- (iii) The mechanisms by which UV-B radiation acts on biological materials, species and ecosystems, including: the relationship between dose, dose rate, and response; photorepair, adaptation, and protection;

- (iv) Studies of biological action spectra and the spectral response using polychromatic radiation in order to include possible interactions of the various wavelength regions;
 - (v) The influence of UV-B radiation on: the sensitivities and activities of biological species important to the biospheric balance; primary processes such as photosynthesis and biosynthesis; the photodegradation of pollutants and agricultural chemicals;
 - (vi) Effects of climate change on ecological systems;
- (c) Systematic observations
- (i) The status of the ozone layer (i.e. the spatial and temporal variability of the total column content and vertical distribution) by making the Global Ozone Observing System, based on the integration of satellite and ground-based systems, fully operational;
 - (ii) The tropospheric and stratospheric concentrations of source gases for the HO_x, NO_x, CO_x and carbon families;
 - (iii) The temperature from the ground to the mesosphere, utilizing both ground-based and satellite systems;
 - (iv) Wavelength-resolved solar flux reaching the earth's atmosphere, utilizing satellite measurements;
 - (v) Wavelength-resolved solar flux reaching the earth's surface in the ultra-violet range with biological effects (UV-B);
 - (vi) Aerosol distribution and properties from the ground to the mesosphere, utilizing both ground-based and satellite systems;
 - (vii) Improved methods for analysing global data from systematic observations trace species, temperatures, solar flux, and aerosols.

5. The following is a list of chemical substances of natural and anthropogenic origin which are currently thought to have the potential to modify substantially the chemical, physical or radiative properties of the ozone layer.

CARBON SUBSTANCES

(i) Carbon monoxide (CO)

CO has significant natural and anthropogenic sources, and is thought to play a major direct role in tropospheric photochemistry, and an indirect role in stratospheric photochemistry.

(ii) Carbon dioxide (CO₂)

Carbon dioxide has significant natural and anthropogenic sources, and affects stratospheric ozone by influencing the thermal structure of the atmosphere.

(iii) Methane (CH₄)

Methane has both natural and anthropogenic sources, and affects both tropospheric and stratospheric ozone.

(iv) Non-methane hydrocarbon species (NMHC)

Non-methane hydrocarbon species, which consist of a large number of chemical substances, have both natural and anthropogenic sources, and play a direct role in tropospheric photochemistry and an indirect role in stratospheric photochemistry.

NITROGEN SUBSTANCES

(i) Nitrous oxide (N₂O)

The dominant sources of N₂O is natural but anthropogenic contributions are becoming increasingly important. It is the primary source of stratospheric NO_x, which play a vital role in controlling the abundance of stratospheric ozone.

(ii) Nitrogen oxides (NO_x)

Ground-level sources of NO_x play a major direct role only in tropospheric photochemical processes and an indirect role in stratosphere photochemistry, whereas injection of NO_x close to the tropopause can lead directly to a change in upper tropospheric and stratospheric ozone.

CHLORINE SUBSTANCES

Fully halogenated alkanes [e.g. CCl₄, CFCl₃ (CFC-11), CF₂Cl₂ (CFC-12), C₂F₃Cl₃ (CFC-113), C₂F₄Cl₂ (CFC-114).]

Fully halogenated alkanes are anthropogenic and act as a source of ClO_x, which play a vital role in ozone photochemistry, especially in the 30-50 km altitude region.

Partially halogenated alkanes [e.g. CH₃Cl, CHF₂Cl (CFC-22), CH₃CCl₃, CHFCl₂ (CFC-21).]

The sources of CH₃Cl are natural, whereas the other partially halogenated alkanes mentioned above are anthropogenic in origin. These gases also act as a source of stratospheric ClO_x.

BROMINE SUBSTANCES

Fully halogenated alkanes (e.g. CF₃Br)

These gases are anthropogenic and act as a source of BrO_x, which behave in a manner similar to ClO_x.

ANNEX II TO THE CONVENTION. INFORMATION EXCHANGE */

1. Recognizing that the collection and sharing of information is an important means of implementing the objectives of this Convention and of assuring that any actions that may be taken are appropriate and equitable, the Contracting Parties shall exchange scientific, technical, socio-economic business/commercial, and legal information.

The Contracting Parties further recognize that co-operation under this annex will be subject to national laws, regulations and practices regarding patents, trade secrets, and protection of confidential [and proprietary] information.

In deciding what information is to be collected and exchanged, the Contracting Parties should take into account the usefulness of information and the costs of obtaining it.

2. Scientific information

The scientific information required is outlined in annex I and includes the nature, status, and results of work described in articles 3 and 4 and in annex I.

3. Technical information

This includes information on:

(a) The availability and cost of chemical (or other) substitutes and of alternative technologies to reduce the emissions of ozone modifying substances and related planned and ongoing research.

(b) The limitations and any risks involved in using chemical or other substitutes and alternative technologies.

4. Socio-economic/business/commercial information

This includes:

(a) Data on production, use and use patterns;

(b) [Import/export data and] international marketing data;

*/ Prepared by the informal technical working group.

(c) Results of studies on the impacts (costs, risks and benefits) of human activities which may indirectly modify the ozone layer and; of regulatory actions taken and being considered to control these activities.

5. Legal information

This includes information regarding:

(a) National laws, administrative measures and legal research relevant to the protection of the ozone layer, e.g. relevant to production, work practices, emissions, products chemical or other substitutes and alternative technologies.

(b) International agreements, including bilateral agreements, relevant to the protection of the ozone layer.

(c) Methods and terms of licensing and availability of patents relevant to the protection of the ozone layer.

ANNEX CONCERNING MEASURES TO CONTROL, LIMIT AND REDUCE THE USE
AND EMISSIONS OF FULLY HALOGENATED CHLOROFLUOROCARBONS
(CFCs) FOR THE PROTECTION OF THE OZONE LAYER */

Article 1. The contracting parties shall take all appropriate measures to end the use of CFC-11 and CFC-12 in aerosol cans, except for essential uses. Each contracting party shall decide on a target date for terminating the use of CFC-11 and CFC-12 in aerosol cans, except for essential uses.

Each contracting party shall inform the secretariat of the uses it considers as essential.

Article 2. The contracting parties shall agree on and implement measures to control, limit and reduce emissions of fully halogenated CFCs by developing and using the best practicable technologies to limit emissions in the sectors of foam plastic, refrigeration, solvents and others.

The contracting parties shall co-operate in providing assistance to developing States in order to enable them to participate in these actions.

Article 3. Each contracting party shall provide the secretariat with:

(a) Relevant figures concerning its production and production capacity in regard to fully halogenated CFCs;

(b) Relevant figures concerning its use of CFC-11 and CFC-12 in the production of aerosol cans;

(c) Information on its experience in limiting emissions of fully halogenated CFCs in the sectors of foam plastics, refrigeration, solvents and others;

*/ Submitted by the experts from Finland, Norway and Sweden.

(d) Information on the target date provided for in article 1.

This transfer of information shall start within six months after the entry into force of this convention, or in case where a party accedes to the convention at a later date, six months after its entry into force for that party. It shall be repeated at intervals to be agreed upon by the conference of the parties.

Annex IV

REPORT OF THE INFORMAL TECHNICAL WORKING GROUP

1. A preliminary discussion on the requirements for technical annexes or protocols was held. There was substantial discussion on the need for a list of chemicals which might affect the ozone layer, possibly in order of their potential impact on the ozone layer. Such substances would be potential candidates for legislature. It was felt, however, a different annex would be needed to deal with regulatory procedures. Consequently, it was decided to provide a list of substances with information on sources, i.e. natural or anthropogenic, and a brief description of their importance to the atmosphere.

2. For the purpose of the Convention, a scientific definition of the ozone layer was formulated. "The ozone layer is the layer of atmospheric ozone above the planetary boundary layer (1-2 km), and excludes local and regional pollution". This is consistent with the Co-ordinating Committee on the Ozone Layer (COOL) definition, and avoids conflict with the Convention on Transboundary Air Pollution, which concerns boundary layer pollution.

3. A brief summary of the issues involved, and of the assessment of ozone layer depletion made by COOL at its sixth session, was given by the Chairman. Ozone depletion due to CFCs 11 and 12 alone is predicted to be 3-5 per cent, compared with 5-10 per cent predicted at the previous COOL meeting (October 1981). The largest depletion would be expected to occur in the 40 km region. Effects on man and the biosphere would be likely to be less than previously thought, but the impact on climate might be significant. In the troposphere, ozone behaves in a similar manner to CO₂, increasing troposphere temperatures in accordance with the "greenhouse effect." In the stratosphere, temperature will fall if concentrations of CO₂ and CFCs increase. Also, ozone is predicted to increase in the stratosphere as a result of increasing CO₂ due to the slowing down of the rate of some chemical reactions. However, CFCs decrease stratosphere ozone by conversion to ClO_x followed by direct chemical catalytic destruction. It was stated that the lack of a trend in the observed column content of ozone is in agreement with theoretical predictions, i.e. there is no discrepancy between theory and observation. The Working Group noted particular needs for:

(a) Better models of tropospheric chemistry;

(b) Quantitative monitoring of source gases and a better understanding of their emissions from anthropogenic and natural ecosystems.

4. Annex I, on research and monitoring, as contained in document UNEP/WG.78/10, was then considered in detail. It was felt that agreement on chemical, physical and biological matters could be reached but a different annex might need to be developed concerning technical (including technology transfer) and socio-economic research. The text of this annex agreed to by the technical working group includes information on chemicals which have the potential to modify the ozone layer (previously developed as a separate annex III). It was recognized by the group that any such list, with or without explanation, may be controversial.

5. It was felt that the new annex adequately addressed the concerns of article 3 of the draft convention in respect of sub-paragraphs 1 (a) - 1 (d) inclusively. However, 1 (e), "Alternative substances and technologies" and 1 (f) "Related socio-economic matters" were not considered in the text of annex I. The technical working group felt that "Alternative substances and technologies" were sufficiently dealt with in article 4 of the draft convention. With regard to "Socio-economic matters", it was felt that although a suitable paragraph might be included in annex I, guidance on this matter should first be sought from the informal session of the Working Group.

6. The draft annex II, Information exchange, as contained in document UNEP/WG.78/10, was then examined by the technical working group. The draft was substantially modified and shortened, recognizing the need to be consistent with article 4 of the draft convention. The paragraph on scientific matters was cross referenced to annex I, Research and monitoring, and the paragraph on business/commercial information was combined with that on socio-economic information. It was felt that previous paragraph 8, on co-operation in the exchange of information, was fully covered by article 4 paragraph 3 in the draft convention. However, should this paragraph be deleted by the informal Working Group during the adoption debate, then it would become necessary to reintroduce a paragraph on this subject in annex II.

7. The revised texts of annex I, Research and monitoring, and annex II, information exchange, are submitted by the technical working group which was unanimous in its opinion that the texts submitted by it would be satisfactory as annexes and/or protocols to a Convention for the Protection of the Ozone Layer should such annexes or protocols be considered necessary.

8. The technical working group met again for a discussion of article 1 of the Convention, definitions, and attempted to resolve the difficult problems of defining the ozone layer. The technical Working Group offered three choices for inclusion in the convention, one of which had an exclusion clause about local and regional ozone. A second difficulty concerned the use of the word "monitoring"; this was successfully resolved by replacing the word by "systematic observations".
