



United Nations  
Environment  
Programme



Distr.  
GENERAL



UNEP/WG.110/4  
9 November 1984

ORIGINAL: ENGLISH

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

REPORT OF THE WORKING GROUP ON ITS WORK AT THE FIRST PART  
OF ITS FOURTH SESSION (GENEVA, 22-26 OCTOBER 1984)

I. INTRODUCTION

1. In accordance with UNEP Governing Council decision 12/14, part I, the first part of the fourth session of the Working Group was held at the Palais des Nations, Geneva, from 22 to 26 October 1984.

II. ORGANIZATIONAL MATTERS

A. Opening of the session

2. The fourth session was opened on behalf of the Executive Director of UNEP by the Deputy Director of the Environmental Management Service and Chief of the Environmental Law Unit, Mr. P.H. Sand. He expressed the hope that the Working Group would complete its work on the Convention to the extent possible and continue to elaborate a draft protocol concerning control of chlorofluorocarbons.

B. Attendance

3. The fourth session was attended by experts from Algeria, Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Denmark, Egypt, Finland, France, Germany, Federal Republic of, Greece, Italy, Japan, Mexico, Netherlands, Norway, Peru, Sweden, Switzerland, Thailand, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland and United States of America, and an observer from Poland. Representatives of the United Nations Economic Commission for Europe, the World Meteorological Organization, the European Economic Community, the European Council of Chemical Industries, the European Federation of Aerosols and the International Chamber of Commerce also attended.

C. Election of officers

4. The Working Group elected Mr. W.J. Kakebeeke (Netherlands) as Chairman, Mr. V. Zakharov (Union of Soviet Socialist Republics) as Vice-Chairman and Mr. A.L. Davéréde (Argentina) as Rapporteur.

D. Adoption of the agenda and organization of work

5. The Working Group adopted the following agenda:

1. Opening of the meeting;
2. Election of officers;
3. Adoption of the agenda and organization of work;
4. Consideration of a draft convention for the protection of the ozone layer;
5. Consideration of a draft protocol concerning control of chlorofluorocarbons;
6. Financial implications of the implementation of the convention for the protection of the ozone layer;
7. Other business;
8. Adoption of the report;
9. Closure of the meeting.

6. Before considering the draft instruments before it, the Working Group agreed to hear a technical report on the results of the seventh session of the Co-ordinating Committee on the Ozone Layer, which had been held in Geneva during the previous week.

III. TECHNICAL ASPECTS

7. The Secretary of the Co-ordinating Committee on the Ozone Layer (CCOL), Mr. P. Usher, introduced the "Executive summary of the assessment of ozone layer modification and its impact (October 1984)" prepared by the Committee at its seventh session (UNEP/WG.110/3). He said that the Committee had met to consider reports by member States on ongoing and planned research programmes and recent research results, and on the basis of those reports, to develop a new assessment of ozone layer modification and its impact.

8. The Working Group was informed of other recommendations of CCOL concerning related scientific assessments to be undertaken by UNEP, WMO and other organizations and bodies. One concerned the holding of a series of workshops on radiative, chemical and physical aspects which were considered likely to impact upon the ozone layer, with a view to obtaining a scientific assessment of those processes which controlled atmosphere ozone and to assess its susceptibility to change due to natural and anthropogenic perturbations.

The programme of workshops was being initiated in response to Governing Council decision 12/14, in which CCOL was requested to provide expert scientific evaluations of the state of the ozone layer and the nature and scale of any likely modification thereof. It was planned that CCOL would hold its eighth session in January 1986 to consider the findings arising from the programme and prepare an appropriate executive summary for presentation to the Governing Council at its fourteenth session in 1987, as well as to any appropriate body established as part of the Convention process. The Working Group was also informed of UNEP plans, in association with the World Meteorological Organization and the International Council of Scientific Unions, to hold a major scientific conference to assess the carbon dioxide/climate question in October 1985 at Villach, Austria, with the support of the Government of Austria.

9. The former Chairman of the Ad Hoc Technical Working Group, Mr. R.T. Watson, then illuminated key aspects of the executive summary. The points he made were as follows:

(a) The atmospheric concentrations of several source gases are simultaneously increasing, yet the reasons for these increases are not understood in a quantitative manner. Some of the causes might be:

Nitrous oxide (N<sub>2</sub>O) - combustion, fertilizer usage

Methane (CH<sub>4</sub>) - cattle, rice paddies

Oxides of nitrogen (NO<sub>x</sub>) - subsonic aircraft, ground emissions

Carbon dioxide (CO<sub>2</sub>) - fossil fuel burning, deforestation

Chlorine species (ClX) - propellants, refrigerants, foam-blowing agents, etc.

The current rates of increase in atmospheric concentrations are 0.2 per cent, 1-2 per cent, unknown, 0.5 per cent and 5.28 per cent for CFCs 11 and 12 only respectively. Note that CFCs 11 and 12 are rapidly increasing not because of parallel increases in production, but because their long lifetime means that they are from equilibrium. A major problem is that data records for these gases are short and that extrapolation of current atmosphere trends for decades to come is accompanied by large uncertainties;

(b) The effects of these gases are strongly coupled and cannot be considered in isolation;

(c) The effects are predicted to be interactive. Increases in CO<sub>2</sub> and CH<sub>4</sub> tend to increase total column ozone, while increases in N<sub>2</sub>O and ClX tend to decrease it;

(d) Observations of the total ozone column from 1970 to 1980 show no trend. This is consistent with predictions made using theoretical calculations which take into account the changing concentrations of source gases during this period. It should be noted that the consistency between theory and observations does not validate the theoretical description of atmospheric processes controlling ozone;

(e) There was a statistically meaningful decrease in ozone between 32 and 40 km during the period 1970-1980. Such a decrease is quite consistent with theoretical model predictions for this period, but it should be acknowledged that there are a number of uncertainties in both the observations and the calculations;

(f) While the majority of reactions taken into account in the theoretical models are quite well known, and indeed the uncertainties continue to be reduced, there are certain new aspects of the chemistry which could significantly alter our future predictions of atmospheric ozone abundance and distribution. These new aspects, which include reactions involving temporary reservoirs, require detailed investigation;

(g) One feature of the theoretical predictions which has remained qualitatively consistent ever since the CFC/ozone theory was originated concerns the substantial vertical redistribution of ozone, involving a decrease above 30 km and an increase in the lower stratosphere and troposphere. This may have consequences for tropospheric climate. While the type of climate change associated with increasing tropospheric ozone is understood, it is not known how tropospheric climate will respond to changes in the vertical distribution of stratospheric ozone;

(h) Predictions of changes in total column ozone have varied substantially during the last few years, predominantly for two reasons:

- First, changes in understanding of chemistry. If the hypothetical situation is considered whereby production of CFCs 11 and 12 remains constant at 1977 rates, and atmospheric concentrations of CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, etc. also remain constant, then the predictions of 18 per cent depletion calculated about five years ago have changed to predicted depletions of only 3-5 per cent today;
- Second, increased recognition that the atmospheric concentrations of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and NO<sub>x</sub> are all currently changing and that there is strong coupling among them. This coupling leads to partially offsetting effects on the ozone layer;

(i) The calculated changes in ozone column content are highly dependent on the assumed scenarios for the future atmospheric concentrations of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, ClX, etc. If the atmospheric concentrations of CH<sub>4</sub>, CO<sub>2</sub> and N<sub>2</sub>O continue to increase at current rates, (1 per cent, 0.5 per cent and 0.2 per cent a year respectively), then it would require a sustained growth of 3 per cent per year in emissions of CFCs 11 and 12 to result in a decrease in the ozone column of 3.5 per cent by the year 2050 (which would mean that by the year 2050 the atmospheric concentration of CH<sub>4</sub> would be double the present level);

(j) Theoretical calculations show that there is a non-linear relationship between the magnitude of the predicted ozone depletion and the atmospheric concentration of ClX. This modification can occur when the atmospheric concentrations of ClX and NO<sub>x</sub> approach equality (depending on

the atmospheric concentrations of CH<sub>4</sub>). If the atmospheric concentrations of CH<sub>4</sub> and N<sub>2</sub>O were to remain constant, then a depletion of ozone of more than 10 per cent would be predicted when the atmospheric concentration of ClX reached 15-20 ppb. Alternatively, if it is assumed that CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub> will continue to increase, as discussed earlier, then this non-linear régime can be reached if there is a sustained increase in the production of CFCs of more than 3 per cent a year,

(k) Theoretical models show that if the atmospheric levels of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O continue to increase, then no decrease in column ozone is expected for the next few decades, although there would be changes in the vertical distribution of ozone,

(l) Atmospheric measurements of trace constituents have been consistent with those predicted by theoretical models, but these measurements have not yet been able to critically validate the photochemical theory,

(m) In conclusion, it should be noted that the equivalent of one giant experiment is being performed on the atmosphere. Mankind is perturbing the carbon, nitrogen, hydrogen and chlorine cycles on a global scale and in an unprecedented manner. The consequences of this for the future cannot be known with any certainty.

#### IV. CONSIDERATION OF A DRAFT CONVENTION FOR THE PROTECTION OF THE OZONE LAYER

10. The Working Group agreed that the fifth reading of the draft Convention would take place in an informal working group of the whole, the results of whose deliberations, in the form of agreed texts where possible, would be communicated to the Working Group meeting in formal session, for discussion and decision as appropriate.

11. On the basis of document UNEP/WG.94/11 (fourth revised draft convention for the protection of the ozone layer, including draft technical annexes I and II) and document UNEP/WG.110/2 (summary of comments received from Governments), the Working Group reviewed the draft in informal working sessions, and completed a further reading of the provisions and annexes, with the following results:

12. The preamble and articles 1, 2, 4, 5, 7, 15, 16, 17, 18, 19 and 20 remained unchanged from the fourth revised draft.

13. Articles 3, 6, 8, 9, 10 and 14 were revised; the revisions appear in annex I to the present report.

##### Article 9

14. One expert expressed a reservation concerning the provision in paragraph 3 that for the adoption of an amendment a three-fourths majority vote is required.

Article 11

15. An informal working group convened by the Vice-Chairman recommended following extensive discussions that the text reproduced in annex II to the present report should be taken, placed in brackets, as a basis for future discussions. One expert submitted the following alternative proposal, while stating his intention of reconsidering the matter and making further, more detailed proposals at a later stage:

Paragraph 1: As in alternative 2, UNEP/WG.94/11.

Paragraph 2: "If the Parties concerned cannot reach an amicable settlement by negotiation, they may, by mutual agreement, seek the good offices of, or request mediation by, a third Party".

Paragraph 3: "Any Party may, at the time of signing, or upon the deposit of its instrument of ratification, adhesion or accession to the Convention or any protocol, declare that it agrees to the settlement of any dispute concerning the interpretation or application of the present Convention or of any protocol to which it is a Party:

"(a) Either according to the procedure for arbitration laid down in annex ... to the present Convention, of which the said annex constitutes an integral part;

"(b) Or by the submission of the dispute to the International Court of Justice."

Article 12

16. Regarding article 12 (and possible consequential provisions in articles 13 and 14), the expert from the European Economic Community informed the meeting that there had been informal consultations between his delegation and the other delegations most concerned by the question, namely, those of the United States of America and the USSR. No other delegation had approached him to discuss the matter, which he took as an indication that other delegations expected to be satisfied with any solution which proved acceptable to those most concerned.

17. He was able to state that, although their informal discussions had not enabled any of the delegations involved to change its formal position, the position of each was now clear to itself and understood by the others. The problem was indeed extremely complex, as might be illustrated by the example of a possible future protocol falling within the exclusive competence of the Community. The present text of article 12, taken together with the requirement of article 15 that a contracting party to a protocol must be, or become simultaneously, a party to the Convention, would result in both the Community and its member States being unable to ratify such a protocol. The member States would be legally unable to do so because their competence would, in one hypothetical but quite probable situation being considered, have been transferred to the Community, and if no member State ratified the Community would not be in a position to do so because the condition laid down in article 12 could not be fulfilled.

18. The European Economic Community saw this as a technical legal problem, to which a technical legal solution would have to be found. Such a solution would be incorporated in an appropriate form in article 12. The expert from the Community was not at present able to suggest a form of words, or even to indicate what might be the substance of a suitable solution. But once one was found, the necessary redrafting of article 12 and any others requiring amendment in the light of the solution found should not pose problems. There would also be consequential drafting changes, for the sake of consistency, in other articles. In reply to a comment from the Chair, the expert from the European Economic Community noted that the ability of the organizations in question, and certainly the European Community, to ratify important future protocols was not only one of legal technicality but also an important question of principle.

19. The expert from the United States of America said he continued to support, as a compromise between a majority state requirement, as insisted upon by one expert (and previously supported by his Government), and no such requirement, as proposed by the expert from the European Economic Community, the requirement for at least one member State's adherence. He indicated that that requirement should also apply to article 14, and proposed that there should be a separate article on the participation of regional economic integration organizations. He further noted that the requirement for member States' adherence as at present drafted could be modified to allow for simultaneous adherence by such States and the regional economic integration organization of which they were members. He believed that solution would resolve one of the technical legal problems raised by the expert from the European Economic Community. Finally, as far as the ozone layer convention was concerned, his Government continued to support a requirement for adherence by at least one member State of a regional economic integration organization; he expressed the hope that continued consultations would lead to a satisfactory resolution for all concerned.

20. Another expert expressed a reservation concerning article 13, paragraph 4, regarding the voting procedure for regional economic integration organizations.

#### Annexes

21. On the basis of a report prepared by the informal working group of the whole, the full Working Group agreed to revise draft annex I to the Convention as contained in document UNEP/WG.94/11, taking into account the comments received from Governments (as summarized in document UNEP/WG.110/2). The agreed amendments appear below in annex III.

#### V. CONSIDERATION OF A DRAFT PROTOCOL CONCERNING CONTROL OF CHLOROFLUOROCARBONS

22. With regard to the proposed protocol to the convention, two documents were before the Working Group; the second revised draft protocol concerning measures to control, limit and reduce emissions of chlorofluorocarbons (CFCs) for the protection of the ozone layer (UNEP/WG.94/12) and a revised draft protocol on chlorofluorocarbons, submitted by experts from Canada, Finland, Norway, Sweden and the United States of America (WG.110/CRP.1).

23. A general discussion was held as to which of the two documents might better serve as a basis for discussion on the contents of a protocol. Several experts considered that there was, at present, no need for a protocol, particularly one dealing with the limitation and reduction of emissions of CFCs. One said that the final examination of the protocol could be undertaken only after adoption of the framework convention, and reserved the position of his country on the text of the protocol. However, another expert drew attention to the provision of Governing Council decision 12/14 which established the terms of reference for the deliberations of the Working Group and required it to continue to elaborate a possible draft protocol concerning control of chlorofluorocarbons.

24. There were arguments for and against document CRP.1 as the more appropriate working paper; the majority of those that spoke believed it was better suited than document UNEP/WG.94/12 for the purpose. One expert said that the protocol should be broader in scope to include substances other than CFCs having the potential to modify the ozone layer. One expert considered that market forces alone might dictate a reduction in CFC use, rendering a protocol unnecessary, as a study carried out within the United States of America and contained in a background document (Aerosol Working Paper Series, Paper 1) indicated that the use of substitute chemicals had resulted in considerable financial savings without any significant loss in advantages related to toxicity, inflammability, convenience, etc. Other experts cautioned that market mechanisms were not so automatic, depended on many factors, and also might vary from country to country. One expert noted that the report contained the important qualification that a timetable for the reduction of the use of CFCs in aerosols should allow for the development of an adequate capacity to supply aerosol-grade hydrocarbons: the qualification indicated that the forced time-scale of article II of CRP.1 could be particularly constraining. One expert drew attention to the indication in the report that it appeared likely that resource savings of the same relative magnitude could be obtained in other countries.

25. Some experts drew attention to the executive summary of the CCOL assessment (UNEP/WG.110/3) to illustrate the many uncertainties concerning ozone chemistry and physics, and in particular whether or not there would be eventual depletion of the ozone layer at steady state. One stated that in his view the scientific evidence was insufficient to single out CFCs for individual regulatory action. A contrary view was expressed by another expert, who pointed out the frequent need to make environmental decisions in a situation of uncertainty, and urged the Working Group to act on CFCs now while not excluding the possibility of action on other substances later. Another expert pointed out that chlorine was considered to be the major factor in ozone layer depletion theory, and that the likelihood of vertical column redistribution impacting on climate was a factor that warranted concern and the consideration of early regulatory action. Some experts complained that the suggested rate of reduction in emissions of CFCs for the protocol (80 per cent within four years) constituted too forced a pace and would involve countries in unnecessary additional costs, but another said that the required rate had been exceeded by his country without adverse effect.

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26. The provision of data on world-wide production, production capacity, use and emissions of CFCs was considered essential by several experts, and the representatives of the chemical manufacturers, who were present at the meeting as observers, were asked if such data could not be collected by them. The Working Group was informed that it had proved impossible to collect data from countries not reporting to the Chemical Manufacturers Association. A member of the secretariat noted that UNEP had similarly failed to obtain such data, but would, at the request of CCOL, be making a further attempt.

27. One expert said the discussion had shown a polarity of viewpoints; another considered the split was not as significant as suggested, since all appreciated that a risk situation existed, although no one could state with certainty the exact nature and significance of the risk. He suggested that it would be perfectly possible to elaborate a protocol despite the divergence of opinions, in view of the fact that the protocol was optional.

28. The Chairman then suggested that the Working Group transform itself into an informal committee of the whole to debate the details of the draft protocol on chlorofluorocarbons contained in WG.110/CRP.1 and those elements in document UNEP/WG.94/12 which were not covered by document CRP.1.

29. In discussing the text of article II of the draft protocol on chlorofluorocarbons, the experts had before them, in addition to the joint proposal by experts from Canada, Finland, Norway, Sweden and the United States of America (WG.110/CRP.1), alternative proposals submitted by the expert from the Netherlands, and by the expert from the European Economic Community. An exchange of views on the merits of each version took place.

30. Several experts asked for a definition of production capacity and what it would imply in terms of restrictions or reductions in CFC emissions. They felt that unless a production capacity cap could have an impact on ozone layer protection within five years, it could not be considered a remedial measure addressing the risk relative to current use and production. The same experts also requested clarification of certain aspects of the proposal by the expert from EEC.

31. They also raised the question of whether a production capacity cap included import restrictions. In particular, they wished to know how to resolve the difficulties that might be encountered in administering a production capacity cap regulation, particularly in respect of the economic impact on non-targeted sectors and of the danger of assigning monopoly control of manufacture of CFCs to current producers. A further question concerned the mechanism for enforcing a production capacity cap regulation, and specifically what would prevent a switch of production to countries not subject to such a cap. A fourth question concerned the future situation of countries having little or no present production capacity but likely to develop an industry for the production of CFCs for essential uses. The experts felt that the concept of a mandatory production capacity cap might inhibit developing countries from becoming parties to the protocol.

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32. The expert from the European Economic Community recalled that during the CCOL session it had been said that a 3 per cent yearly increase in emissions of CFCs 11 and 12, taken together with the effect of all other gases, might lead to a 3.5 per cent decrease in the ozone layer. For this to occur, production of CFCs 11 and 12 would have to increase sevenfold. The EEC measures limiting production capacity meant that EEC industry could never increase its total production by more than a factor of 1.5. The total EEC production capacity in 1980 was 480,000 tonnes. The EEC measures prohibited any increase in CFC 11 and 12 production capacity in each member State. The definition of production capacity in one relevant EEC measure (Council decision of 26 March 1980, Official Journal of the European Communities, No. L 90/45, and Council decision of 15 November 1982, Official Journal of the European Communities No. L 329/29), was "full capacity in 24 hours of continuous service, multiplied by the average number of days per year the plants are able to run in normal conditions of maintenance and safe operability". It was expressed in tonnes per year.

33. The expert further said that a production capacity cap could be enforced by a licensing system applicable to each company, or in any other way which was appropriate under national legislation in other countries. A production capacity cap did not as such include restrictions on imports. It was essential to monitor imports, and EEC had done so. There had not been a substantial diversion of demand into imports. A production capacity cap should be combined with restrictions on use, as had been done by EEC. If important limitations were necessary, that could be accomplished through enforcement of the restriction by normal customs authorities. The extent of the economic impact of such measures, if taken, would depend on the circumstances.

34. The expert from EEC went on to say that a production capacity cap might have to be combined with some special arrangements for countries which now had no production capacity. EEC would like to discuss that important question, but at present could not suggest specific measures to address it. It was important that measures should be taken, as had been done by EEC, to encourage the development of new and substitute products not containing CFCs, and that meant that market shares of current producers of CFCs were not guaranteed. As to the economic impact on non-targeted sectors, it was not clear which sectors were referred to, as the phrase could apply to several different groups. The growth of non-aerosol uses would be limited by the production capacity cap.

35. One expert noted the dependence of the calculated ozone depletion on the emission scenarios assumed not only for CFCs, but also for other trace gases. The 3-5 per cent figure cited by the EEC expert was, in particular, very dependent on continued growth of atmospheric methane concentrations, for which only six or seven years' data existed. The expert also noted that changes in total column ozone were not the only environmental effects of concern. The vertical temperature profile and the composition of trace gases in the atmosphere were also changing, with potentially significant effects on global climate patterns.

36. Another expert said that the proposal for a mandatory production capacity cap would apply only to currently producing countries, and would oblige developing countries to import from them. Yet another said that one of the problems arising with a "cap" policy lay in its application to countries with different production levels in relation to their capacity. A cap would discriminate against countries with production levels already close to their capacity.

37. One expert speaking on behalf of EEC said that while a production capacity cap would have an eventual protective impact on the ozone layer, it was of more immediate benefit to develop a protocol which could lead to immediate emission reductions. However, others considered that the application of a production capacity cap did meet the serious environmental threat posed by possible ozone layer modification, especially when combined with other measures as proposed in the draft protocol.

38. The Working Group then proceeded to consider the different proposals for the provisions of the draft protocol, article by article, taking into account the comments received from Governments (as summarized in document UNEP/WG.110/3) and new suggestions submitted at the meeting. Following extensive debate, the Chairman presented a consolidated draft including the various alternatives proposed. After considering and amending the Chairman's draft, the Working Group agreed that a revised version, to be prepared by the secretariat in consultation with the Chairman, should be attached to the present report as a basis for further discussion. The revised version appears in annex IV below.

#### IV. FINANCIAL IMPLICATIONS OF THE IMPLEMENTATION OF THE CONVENTION FOR THE PROTECTION OF THE OZONE LAYER

39. The Working Group considered a document on this subject prepared by the UNEP secretariat (UNEP/WG.94/13) with a view to a preliminary exchange of views. One expert expressed the opinion that the budget for the Convention should be separate from the protocol budget or budgets, possibly with distinct accounting systems. With regard to the two options for financing the Convention, he expressed his Government's preference for option 1 based on the use of United Nations assessment scales, as option 2 could be more burdensome for developing countries. He also expressed opposition to the suggestion that CFC-producing countries should make special contributions to the budgets as CFCs were not the only chemicals having the potential to modify the ozone layer. In any case, it was emissions rather than production of chemicals which had significance for ozone layer modification.

40. There was general support for those views. One expert, agreeing that the costs of administering the protocol should fall only on those who were party to the protocol, cited precedents concerning other conventions to which his country was a party, especially in the framework of the World Intellectual Property Organization (WIPO).

41. A representative of the secretariat referred to precedents in the administration and financing of several regional seas conventions and protocols for which UNEP provided secretariat services, especially the

Convention for the Protection of the Mediterranean Sea against Pollution and its four protocols. If, as the present draft protocol provided, a single secretariat were to administer the Convention and the protocol(s), the apportionment of the secretariat costs should be reasonably flexible so as to achieve the cost savings desired. There was agreement with the suggestion to take into account practical experience with other conventions in that respect.

42. All experts commenting on the subject expressed their preference for assessment based on the United Nations General Assembly scale, to be adjusted in proportion to the membership of the Convention and any protocol. However, several experts reserved the position of their Governments until after the entry into force of the instruments, at which time the actual membership would be known. It was pointed out that it was for the Conference of the Contracting Parties to adopt the relevant financial rules. In that connection, the representative of the World Meteorological Organization noted that, according to the recommendations of the Working Group at its Vienna session (UNEP/WG.94/10, paragraph 64 (c)) UNEP had been requested to make the necessary administrative and financial provision for the interim period until the completion of the first ordinary meeting of the Conference of the Contracting Parties. The Chairman added, however, that that should not exclude the possibility of voluntary contributions from the Parties or Signatories during the interim period.

43. One expert questioned the requirement of payment in fully convertible United States dollars contained in the financial terms of reference of the trust fund for the Convention (UNEP/WG.94/13, annex II, para. 7). A representative of the secretariat explained that the terms of reference were based on precedents in the administration of other trust funds administered by UNEP, and another expert pointed out that convertibility of payments was a generally accepted rule for United Nations trust funds, and that exceptions to the rule would require specific authorization by the United Nations Controller. One expert reserved the position of his Government until further scrutiny by the appropriate financial authorities.

44. Some experts expressed general reservations regarding the financial implications of the implementation of the Convention until further consideration of the matter by their national authorities.

## VII. OTHER BUSINESS

45. The Working Group recommended to the Executive Director that he should convene the second part of the fourth session, tentatively scheduled to be held in Geneva from 21 to 25 January 1985, in order to complete work on the Convention to the extent possible and to continue to elaborate a possible draft protocol concerning control of chlorofluorocarbons.

46. The expert from Austria informed the meeting that his Government was ready to host the Diplomatic Conference on the Protection of the Ozone Layer in Vienna, tentatively scheduled from 18 to 22 March 1985, and that consultations had been initiated with UNEP on the conference arrangements. The Chairman expressed the gratitude of the Working Group to the Austrian Government for the offer.

#### VIII. ADOPTION OF THE REPORT AND CLOSURE OF THE MEETING

47. The Working Group considered a draft report presented by the Rapporteur, and adopted it with various amendments. The secretariat was entrusted with the task of finalizing the report as amended. Following the customary exchange of courtesies, the Chairman declared the session closed.



Annex I

ARTICLES OF THE DRAFT CONVENTION (UNEP/WG.94/11) REVISED  
AT THE FIRST PART OF THE FOURTH SESSION

Article 3

Paragraph 1 (b) and (c) should read as follows:

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

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

A new subparagraph (d) should be inserted after subparagraph (c), reading as follows:

"(d) Effects deriving from any modifications of the ozone layer and any consequent change in UV-B radiation on natural and synthetic materials useful to mankind."

Subsequent subparagraphs should be renumbered.

Article 6

Paragraph 4 (b) should read as follows:

"(b) Review the scientific information on the ozone layer, on its possible modification and on possible effects of any such modification."

Article 8

The article should read as follows:

"ADOPTION OF PROTOCOLS

- "1. The Conference of Contracting Parties may adopt, at an extraordinary meeting, protocols to this Convention pursuant to the provisions of article 2.
- "2. The text of any proposed protocol shall be communicated to the Contracting Parties by the Secretariat at least six months before such an extraordinary meeting."

Article 9

The article should read as follows:

**"AMENDMENT OF THE CONVENTION OR PROTOCOLS**

- "1. Any Contracting Party to this Convention may propose amendments to it or to any protocol thereto. Such amendments shall take due account, inter alia, of relevant scientific and technical considerations.
- "2. Amendments shall be adopted at a meeting of the Conference of the Contracting Parties by the Contracting Parties to the instrument in question. The text of any proposed amendment shall be communicated to the Contracting Parties by the Secretariat at least six months before such a meeting. The Secretariat shall also communicate proposed amendments to the signatories for information.
- "3. The Contracting Parties shall make every effort to reach agreement on any amendment to this Convention by consensus. [If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Contracting Parties to the Convention present and voting at the meeting, and shall be submitted by the Depositary for ratification, approval or acceptance by all the Contracting Parties. For these purposes "Contracting Parties present and voting" means Contracting Parties present and casting an affirmative or negative vote.]
- "4. The procedure mentioned in paragraphs 2 and 3 shall apply to amendments to any protocol to the Convention, except a two-thirds majority of the Contracting Parties to such protocols shall suffice for their adoption.
- "5. Ratification, approval or acceptance of amendments shall be notified to the Depositary in writing. Amendments adopted in accordance with paragraph 3 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 ratification, approval or 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 Contracting Party ninety days after that Party deposits its instrument or ratification, approval or acceptance of the amendments."

Article 10

Paragraph 3 should read as follows:

- "3. Any Contracting Party may propose amendments to the annexes to this Convention or to the annexes to any protocol. Any proposed amendment shall be notified by the Secretariat to the Contracting Parties not less than sixty days before the convening of a meeting of the Conference of the Contracting Parties. Such annexes and amendments thereto shall take due account, inter alia, of relevant scientific and technical considerations."

Article 14

Paragraph 1 should read as follows:

- "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 12. The instruments of accession shall be deposited with the Depositary."



Annex II

REVISED ARTICLE 11: SETTLEMENT OF DISPUTES

As reported above (paragraph 15), following extensive discussions, an informal working group convened by the Vice-Chairman recommended a new text of article 11, to be taken, placed in brackets, as a basis for future discussions. The new text reads as follows:

Paragraphs 1 and 2 as in alternative 2, document UNEP/WG.94/11.

[3. If the Parties concerned cannot reach agreement by the means set out above the dispute shall upon the request of either of them be submitted to arbitration or to the International Court of Justice.

4. When accepting, approving or ratifying the present Convention or acceding to it any party can declare:

(a) That it accepts only one of the two procedures laid down in paragraph 3; or

(b) That it does not consider itself bound by the compulsory dispute settlement clause as laid down in paragraph 3.

5. If the parties have not, in accordance with paragraph 4 (a) above, accepted the same procedure, the dispute shall be submitted to conciliation in accordance with paragraph 6 below unless the parties otherwise agree.

6. If one of the Parties to a dispute has made the declaration provided for under paragraph 4 (b) above, a Conciliation Commission shall be created upon the request of one of the Parties. The Commission shall be composed of an equal number of members appointed by each Party concerned, and the Chairman will be chosen by the members jointly. The decision of the Commission shall be final and binding if the parties have so agreed; otherwise the Commission shall render a final and recommendatory award, which the parties shall consider in good faith.]

Paragraph 7 as paragraph 4 in alternative 2, document UNEP/WG.94/11.



Annex III

AMENDMENTS TO TECHNICAL ANNEX I (RESEARCH AND SYSTEMATIC  
OBSERVATIONS) (UNEP/WG.94/11, Annex I)

1. As reported above (paragraph 21), on the basis of a report prepared by the informal working group of the whole the full Working Group agreed to revise the draft annexes to the Convention as contained in document UNEP/WG.94/11, taking into account the comments received from Governments, as summarized in document UNEP/WG.110/2. The agreed amendments are set out below.
2. With respect to the suggested amendments by Kuwait regarding paragraph 2 (d) (i), it was not felt appropriate to delete the brackets. It was suggested that a misunderstanding might have occurred: in this case brackets were not being used to denote an alternative or unagreed text, but rather to improve sentence structure.
3. In paragraphs 4 (c) (i) and 4 (c) (ii), the square brackets were deleted.
4. In paragraphs 4 (d) the round brackets were deleted. Amendments suggested by the Government of New Zealand (UNEP/WG.110/2, p. 5)
5. Paragraph 1 (a). This suggestion was adopted, to ensure consistency with article 3 of the draft convention.
6. Paragraph 2 (a) (iii). The suggested change was accepted.
7. Paragraph 2 (b). The title was amended to read "Research into health, biological and photodegradation effects".
8. Paragraph 2 (b) (v). The words "the photodegradation of pollutants and agricultural chemicals" were deleted.
9. A new subparagraph 2 (b) (vi) was added, reading as follows:  
  
"The influence of UV-B radiation on the photodegradation of pollutants, agricultural chemicals and other materials."
10. Paragraph 2 (c). It was felt that this paragraph needed strengthening, in view of the importance of potential climatic change and its impact. The following text was substituted;

"(c) Research on effects on climate

"Theoretical and observational studies of the radiative effects of ozone and other trace species and the impact on climate parameters, for example, land and ocean surface temperatures, precipitation patterns, and exchange between the troposphere and stratosphere, and the investigation of the effects of climate change on various aspects of human activity."

11. Paragraph 2 (d) (iv) was amended to read as follows:

"Wavelength-resolved solar flux reaching, and thermal radiation leaving, the Earth's atmosphere, utilizing satellite measurements;"

12. The suggested new paragraph after 2 (d) (vi) was accepted, and paragraph 2 (d) (vii) renumbered accordingly.

13. Paragraph 4 (c) (i) and (ii). The brackets were deleted.

Annex IV

THIRD REVISED DRAFT PROTOCOL  
ON CHLOROFLUOROCARBONS

As reported above (paragraph 38), the Working Group agreed that a revised version of the draft protocol on chlorofluorocarbons should be prepared by the secretariat, in consultation with the Chairman, on the basis of the Group's discussions, and annexed to its report. The revised version appears below:

[PREAMBLE

The Parties to the present Protocol,

Being Contracting Parties to the Convention for the Protection of the Ozone Layer,

Mindful of their obligation under the Convention to take all appropriate measures to protect human health and the environment from adverse effects which could result from modification of the ozone layer,

Recognizing that world-wide emissions of chlorofluorocarbons could significantly deplete and otherwise modify the ozone layer, resulting in adverse effects on human health and the environment,

Recognizing also the potential climatic effects of chlorofluorocarbon emissions,

Recognizing further the desirability of reducing the total global emissions of chlorofluorocarbons, and determined to take precautionary measures to control such emissions,

Considering that emissions of chlorofluorocarbons used in aerosols can be relatively economically controlled,]

Have agreed as follows:

ARTICLE I: DEFINITIONS

For the purposes of the present Protocol,

1. "The Convention" means the Convention for the Protection of the Ozone Layer;
2. "A Party" or "the Parties" means a Contracting Party or the Contracting Parties to the Protocol;

/...

3. "The Secretariat" means the Secretariat of the Convention;
4. "Chlorofluorocarbon" or "CFC" means any fully halogenated Chlorofluoroalkane.

ARTICLE II: CONTROL OF THE USE OF CFCs [IN AEROSOLS]

Alternative 1

[New initial paragraph

Each Party shall take all appropriate precautionary measures to ensure that industry situated in its territory does not increase its production capacity of CFCs 11 and 12.

1. Each Party shall, within two years after entry into force of this Protocol for it, ensure that there is a reduction in its total annual use of CFCs 11 and 12 in aerosols of at least thirty per cent of its use of these CFCs in aerosols in 1976.]

Alternative 2

- [1. Each Party shall:

- (a) Within two years after the entry into force of the present Protocol, ensure that its total annual use of CFCs in aerosols does not exceed sixty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol;

- (b) Within four years after the entry into force of the present Protocol, ensure that its total annual use of CFCs in aerosols does not exceed twenty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol;

- (c) Within six years after the entry into force of the present Protocol, ensure that its total annual use and exports of CFCs in aerosols does not exceed twenty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol.

2. The requirements of paragraph 1 shall not apply to any Party which:

- (a) Within four years after the entry into force of the present Protocol, prohibits all uses of CFCs in aerosols except for those uses it considers to be essential; and

- (b) Within six years after the entry into force of the present Protocol, prohibits all exports of CFCs in aerosols except for those uses it considers to be essential.]

Alternative 1

[3. The requirements of paragraph 1 shall further not apply to any Party which:

(a) Within two years after the entry into force of the present Protocol, ensures that its total annual use of CFCs in aerosols does not exceed sixty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to entry into force of the present Protocol;

(b) Ensures that its total production capacity for CFCs [CFCs 11 and 12] does not exceed the total production capacity at the moment of entry into force of the present Protocol.]

Alternative 2

[3. The requirements paragraphs 1 and 2 shall not apply to any Party which:

(a) Within two years after the entry into force of the present Protocol, that its total annual use of CFCs in aerosols does not exceed sixty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol;

(b) Within four years after the entry into force of the present Protocol, ensure that its total annual use of CFCs in aerosols does not exceed thirty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol;

(c) Within six years after the entry into force of the present Protocol, ensure that its total annual use and exports of CFCs in aerosols does not exceed thirty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol;

(d) Ensures that its total production capacity for CFCs does not exceed the total production capacity at the moment of entry into force of the present Protocol.]

[4. The requirements of paragraph 1 shall also not apply to any Party which, within [four] years after the entry into force of the present Protocol for it, ensures that its total annual use of CFCs does not exceed [eighty] per cent of the amount of CFCs it used in the year of its maximum use prior to the entry into force of the present Protocol.]

5. The provisions of this article shall in no way affect the right of the Parties to adopt measures stricter than those provided for in paragraphs 1 and 2 [and 3]]

New article II A

[Contracting Parties shall co-operate in actions aimed at reducing chlorofluorocarbons losses and developing the best practicable technologies in order to limit emissions in the synthetic foam, refrigeration and solvent sectors.]

New article II B [CFC emissions]

["Recognizing that reductions gained by implementation of article II may be offset by potential growth in the sum of the uses of CFCs, the Parties shall co-operate in promoting the control, limitation, reduction and prevention of all CFC emissions. To this end they shall take appropriate measures, such as:

Alternative 1:

- [(a) Development and application of best practicable control technologies;
- (b) Development and application of substitutes for CFCs and CFC products;
- (c) Research on the costs and benefits of various control strategies.]

Alternative 2

[(a) Within two years after the entry into force of the present Protocol, ensure that its total annual use of CFCs in aerosols does not exceed sixty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol;

(b) Within four years after the entry into force of the present Protocol, ensure that its total annual use of CFCs in aerosols does not exceed twenty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocols;

(c) Within six years after the entry into force of the present Protocol, ensure that its total annual use and exports of CFCs in aerosols does not exceed twenty per cent of the amount of CFCs it used in aerosols in the year of its maximum use prior to the entry into force of the present Protocol.]

**ARTICLE III: REVIEW OF CONTROL MEASURES**

The Parties shall regularly at their meetings reassess the control measures provided for in article II, on the basis of the scientific, environmental and economic information available, and shall take all appropriate action.

**ARTICLE IV: REPORTING OF INFORMATION**

1. Within one year after the entry into force of the present Protocol [for it], each Party shall inform the Secretariat of its year of maximum use of CFCs in aerosols, as provided for in article II [and the total amount of such use in that year].

2. [Each Party] [Parties to the Protocol, either individually or jointly] shall submit annually to the Secretariat:

(a) Aggregated data on the total amounts of CFCs used [in aerosols and the total amounts of CFCs exported in aerosols];

[(b) A list of the uses they consider essential pursuant to paragraph 2 of article II, and the reasons why such uses are considered essential;]

(c) Information on national laws, regulations, policy directives or other measures adopted to implement the present Protocol.

[(c) bis: A summary of activities conducted pursuant to article II B;]

(d) Any other information to indicate their implementation of the present Protocol.

[3. At any meeting of the Parties, the Parties may adopt more specific guidelines or procedures for reporting of information.]

**ARTICLE V: RESEARCH AND DEVELOPMENT**

Alternative 1

[1. Recognizing that reductions gained by implementation of article II may be offset by potential growth in other uses of CFCs, the Parties shall co-operate in promoting research, development and exchange of information on the control, limitation, reduction and prevention of CFC emissions, in such areas as:

(a) [Application of] best practicable control technologies;

(b) [Application of] substitutes for CFCs and CFC products;

(c) The costs and benefits of various control strategies.

Alternative 2

[1. Recognizing that reductions gained by implementation of article II may be offset by potential growth in other uses of CFCs, the Parties shall co-operate, as appropriate, in promoting, directly and through competent

/...

international bodies, and taking fully into account relevant ongoing activities at both national and international levels, the conduct of research and scientific assessments on:

- (a) The best practicable technologies;
- (b) Possible alternatives to CFCs and CFC products;
- (c) Costs and benefits of relevant control strategies.]

2. Each Party shall submit to the Secretariat a summary of activities conducted pursuant to the present article on a biennial basis.

#### ARTICLE VI: TECHNICAL ASSISTANCE

1. The Parties shall co-operate, taking into account in particular the needs of developing countries, in promoting, in the context of the provisions of article 4 of the Convention, technical assistance to facilitate participation in and implementation of the present Protocol.

2. Any Party or Signatory to the present Protocol in need of technical assistance in implementing it may submit a request to the Secretariat.

#### ARTICLE VII: SECRETARIAT FUNCTIONS

1. The Secretariat shall:

- (a) Arrange for and service meetings of the Parties;

[(b) Distribute to the Parties information on each Party's year of maximum use of CFCs in aerosols and the total amount of its use in that year, as reported by the Parties in accordance with article IV;]

- (c) Prepare and distribute to the Parties regularly a report based on information received pursuant to articles IV and V;

- (d) Notify the Parties of any request for technical assistance received pursuant to article VI [and to provide such assistance to the extent possible];

- (e) Perform such other functions as may be assigned by the Parties.

#### ARTICLE VIII: MEETINGS OF THE PARTIES

1. The Parties shall hold meetings at regular intervals. The Secretariat shall convene the first meeting of the Parties within one year after the entry into force of the present Protocol and in conjunction with a meeting of the Conference of the Contracting Parties to the Convention, \_\_\_\_\_ if a \_\_\_\_\_ meeting of the latter is scheduled within that period.

/...

2. Subsequent ordinary meetings of the Parties shall be held in conjunction with meetings of the Contracting Parties to the Convention, unless otherwise decided by the Parties to the Protocol. Extraordinary meetings of the Parties may be held at such other times as may be deemed necessary by them, or at the written request of any of them, provided that, within six months of such a request being communicated to them by the Secretariat, it is supported by at least a third of the Parties.

3. The functions of the meetings of the Parties shall be:

- (a) To review implementation of the present Protocol;
- (b) To establish [where necessary] guidelines or procedures for reporting of information as provided for in article IV;
- (c) To review requests for technical assistance provided for in article VI;
- (d) To review reports received from the Secretariat pursuant to article VII;

[(e) To consider and adopt proposals for reassessment of the control measures provided for in article II, pursuant to article III;]

[(e) To reassess the control measures provided for in article II pursuant to article III and, as necessary, adopt amendments to such measures;]

(f) To consider and adopt other proposals for amendment of the present Protocol;

(g) To consider and adopt \_\_\_\_\_ the budget for the implementation of this Protocol.

ARTICLE IX: [RELATIONSHIP OF THE PRESENT PROTOCOL TO THE CONVENTION

1. The relevant provisions of the Convention with respect to any Protocol shall apply to the present Protocol.

2. The Rules of Procedure and Financial Rules adopted pursuant to article 6, paragraph 3 of the Convention shall apply to the present Protocol, unless the Parties to the Protocol agree otherwise.]

[ARTICLE IX bis: SIGNATURE

1. Subject to paragraph 2 of this article, this Protocol 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 Protocol [and a majority of whose member States are signatories to this Protocol.].

2. A State or a regional economic integration organization referred to in paragraph 1 of this article may not become a Party unless it is, or becomes at the same time, a Contracting Party to the Convention.]

ARTICLE X: ENTRY INTO FORCE

Alternative 1

[1. The Present Protocol shall enter into force on the thirteenth day following the date of deposit of the [fifth] [...] [sixth] instrument of ratification, acceptance, approval or accession submitted by any Contracting Party to the Convention.]

Alternative 2

[1. This Protocol shall enter into force on the same date as the Convention enters into force, provided that there have been deposited five instruments of ratification, acceptance, approval or accession to the Protocol. In the event that five such instruments have not been deposited by the date of entry into force of the Convention, this Protocol shall enter into force on the thirtieth day following the date of deposit of the fifth instrument of ratification, acceptance, approval or accession to the Protocol submitted by any Contracting Party to the Convention.]

2. After the entry into force of this Protocol, any Contracting Party to the Convention shall become a Party to the Present Protocol on the thirtieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession, and shall assume all obligations currently in force for other Parties.

ARTICLE XI: AUTHENTIC TEXTS

The original of the present Protocol, 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 ONLY AUTHORIZED TO THAT EFFECT, HAVE SIGNED THE PRESENT PROTOCOL.

DONE AT ..... THIS.....  
DAY OF .....