



United Nations
Environment
Programme



Distr.
LIMITED
UNEP/CCOL/6/4
25 March 1983

Original: ENGLISH

Co-ordinating Committee
on the Ozone Layer
Sixth Session
Geneva, 5-8 April 1983

A Special Paper on the Possible Contents of
Annexes and/or Protocol to the Draft
Convention for the Protection of
the Ozone Layer

Annex II

PROPOSALS SUBMITTED IN WRITING AT THE FIRST PART OF THE GROUP'S SECOND SESSION REGARDING OTHER PARTS OF THE DRAFT CONVENTION

Article 15

Replace the existing text by:

This Convention shall be open for signature at ___ from ___ to ___ by any State. It shall also be open for signature between the same dates by any regional economic integration organization exercising competence in the fields covered by this Convention and if a majority of its member States are signatory to this Convention.

Article 16

At the end of the first sentence of the existing paragraph, add by States.

Add the following new paragraphs:

2. This Convention and any protocol thereto shall also be subject to ratification, acceptance or approval by the organizations referred to in article 12 if a majority of its member States are a party 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 protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

3. In matters within their competence, such organizations shall exercise the rights, and fulfil the obligations under the Convention on behalf of their member States. In such cases, the member States of the organization shall not be entitled to exercise such rights individually. The participation by such organizations shall in no case entail an increase in the representation of their members which are Contracting Parties to the Convention.

Article 19

Delete the article.

Article 20 bis

Add the following new article:

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.

ANNEX I TO THE CONVENTION: RESEARCH AND MONITORING

1. Recognizing the importance of research and monitoring 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 and collectively, research, monitoring and scientific assessments appropriate to their expertise, geography, and available resources.

2. 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 upper 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 of the vertical distribution of ozone;

(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 government 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.

3. Areas of research and monitoring that the Contracting Parties recognize as important include:

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

(i) Comprehensive theoretical models: the continued development of multidimensional interactive models of radiative, chemical and dynamical processes; studies of the simultaneous effects of various species, e.g. CFCs, chlorocarbons, CO₂, N₂O, NO_x and CH₄, upon atmospheric ozone; interpretation of satellite and non-satellite field measurement data sets; studies of the radiative effect of ozone and other minor species which affect ozone photochemistry and atmospheric dynamics, potentially resulting in climatic impact; the evaluation of trends in atmospheric and geophysical parameters, in particular relating to ozone, temperature and precipitation data, and the development methods for attributing changes in ozone data to specific causes;

(ii) Laboratory studies of: rate coefficients, absorption cross-sections, quantum yields, and reaction mechanisms of tropospheric and stratospheric chemical and photochemical

/...

processes over the relevant pressure and temperature ranges, including the search for additional reactions which may affect atmospheric chemistry; line positions, line widths, broadening coefficients, line strengths and line identification to support field measurements in the ultra-violet, visible, infra-red and microwave spectral regions;

- (iii) Field measurements: simultaneous measurements of the concentrations of photochemically related compounds of the various families using in situ and remote sensing instrumentation from ground, aircraft, balloon, rocket-borne, and satellite platforms; emphasis should be placed on extending the measurements of radical species down to the tropopause; the intercomparison of different sensor; obtaining 3-D fields of key trace constituents, solar flux, and meteorological parameters in the stratosphere using satellites; co-ordinated correlative measurements for satellite instrumentation; atmospheric dynamics studies using aircraft and ground-based radar;
 - (iv) Instrument development, including: reliable operational satellite sensors for accurate measurements of the vertical distributions of ozone, water vapor and temperature over the complete altitude range of the stratosphere; reliable operational satellite sensors for the total column content of ozone and solar flux (wavelength-resolved) including the continued development of in-flight calibrations; improved ground-based, balloon- and rocket-borne sensors for integration into a Global Ozone Observing System and for performing correlative measurements for satellite ozone measurements (column content and vertical distribution); in situ or remote sensors for key constituents for which instrumentation currently does not exist;
- (b) Research in health and biological effects
- (i) The relationship between human exposure to solar ultra-violet radiation and the development of non-melanoma skin cancer, and the possible relationship between sunlight and melanoma skin cancer, including social and environmental conditions;
 - (ii) Biological effects of UV-B, including the wavelength dependence, upon agricultural crops, forests and other ecosystems, in different geographical locations and under local growing conditions;
 - (iii) Aquatic effects studies extended to the natural water environment to gain knowledge of the effect of enhanced solar UV-B, including the wavelength dependence, on aquatic food productivity;

/...

- (iv) The mechanisms by which UV-B radiation acts on biological species and ecosystems including: the relationship between dose, dose rate, and response; photorepair, adaptation, and protection;
- (v) Studies of biological action spectra and the spectral response using polychromatic radiation in order to include possible interactions of the various wavelength regions;
- (vi) The influence of existing and enhanced UV-B radiation on: the sensitivity and activities of insects important to the biospheric balance (animal food chain, plant cross-fertilization, etc.); micro-organisms, such as those causing plant and animal diseases; primary processes such as photosynthesis, biosynthesis, etc.; the photodegradation of herbicides, pesticides, fertilizers and similar agricultural chemicals;

(c) Monitoring

- (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. This requires a significant improvement in the quality and quantity of vertical distribution measurements, and an upgrading and calibration of Dobson and M-83 type instruments;
- (ii) The tropospheric and stratospheric concentrations of source gases for the HO_x, NO_x, and ClO_x families including H₂O, CH₄, N₂O, CFCl₃, CF₂Cl₂, CCl₄, CH₃Cl, CH₃CCl₃, CHF₂Cl and other chlorinated compounds. In addition, similar measurements of CO₂, and CO are required;
- (iii) The temperature from the ground to the mesosphere, utilizing both ground-based and satellite systems;
- (iv) Wavelength-resolved solar flux entering 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), in conjunction with total ozone measurements;
- (vi) Aerosol concentrations from the ground to the mesosphere, utilizing both ground-based and satellite systems;
- (vii) Improved methods for analysing global monitoring data on trace species, temperatures, solar flux, and aerosols.

/...

ANNEX II TO THE CONVENTION: INFORMATION EXCHANGE

1. The Contracting Parties recognize that the sharing of information is an important means of implementing the objectives of the Convention and of assuring that any actions taken are appropriate and equitable. In developing annexes and protocols under the Convention, the Contracting Parties shall draw upon the following Guidelines for Information Exchange.

1. INFORMATION TO BE EXCHANGED

2. The Contracting Parties recognize that they will need to consider the following types of information in taking actions under the Convention: scientific, technical, business/commercial, legal and socio-economic.

(a) Scientific information

3. This includes information on the nature, status, and results of work described in annex I, as well as information regarding emissions due to human activities or natural events which may affect the ozone layer. Types of information to be exchanged include:

(a) Reports and literature on the ozone depletion theory and the effects of ozone depletion on health and the environment;

(b) Studies which are under way or planned, for purposes of co-ordinating world testing programmes;

(c) Assessments of results and recommendations for future work performed by national or international bodies;

(d) Information on the emissions of various substances, as well as production and use data needed in modelling;

(e) Model results;

(f) Raw data, especially from field measurements, as well as their archiving, as feasible and appropriate.

(b) Technical information

4. This includes information on:

(a) The availability and cost of substitute and new technologies;

(b) Research, planned and on-going on technologies for reducing modification of the ozone layer;

(c) Business/commercial information

5. This include information regarding the production, use, and emission data needed for modelling and monitoring studies and for the assessment of economic effects of contemplated actions.

/...

(d) Legal information

6. This includes information regarding:

- (a) Licensing and patent protection;
- (b) National laws or administrative measures concerning production, work practices or emissions;
- (c) Laws giving administrative bodies the authority to regulate production, work practices or emissions;
- (d) International agreements, including bilateral agreements, concerning production, work practices, or emission controls, especially those involving imports or exports.

(e) Socio-economic information

7. This includes information regarding:

- (a) The risks and benefits of human activities which may modify the ozone layer;
- (b) The socio-economic effects of possible ozone depletion;
- (c) The consequences of regulatory actions taken;
- (d) Import/export and international marketing information.

2. CO-OPERATION IN THE EXCHANGE OF INFORMATION

8. The Contracting Parties recognize that when they decide to limit particular emissions, it is to their mutual benefit to share knowledge as to the availability of certain techniques, equipment, or substitutes. The Contracting Parties agree to co-operate by:

- (a) Facilitating the licensing and sale of alternative technologies among countries;
- (b) Providing information on alternative technologies and equipment, including supplying manuals and guides;
- (c) Stationing necessary monitoring equipment and facilities;
- (d) Providing appropriate training of scientific and technical personnel.

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

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