

OZONE LAYER PROTECTION BILL

EXPLANATORY NOTE

THIS Bill provides for the further implementation in New Zealand of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer.

The Bill will enable New Zealand to give effect to new initiatives to protect the ozone layer more readily. For example, at the Fourth Meeting of the Parties to the Montreal Protocol, it was agreed to phase out hydrochlorofluorocarbons (HCFC's) by the year 2030 and to make methyl bromide a controlled substance. This Bill will facilitate the implementation of these decisions in New Zealand.

The Bill replaces the Ozone Layer Protection Act 1990. That Act contains many provisions of a detailed and technical nature. When the Act was last amended, the Legislation Advisory Committee and the Planning and Development Select Committee suggested that a broader regulatory power be considered. This Bill therefore proposes that the purpose and principles of ozone layer depletion legislation be set out in the Act, but it is intended that the remaining current provisions will be moved into regulations. This will make the process of incorporating changes to the Montreal Protocol into New Zealand's legislation more straightforward. This approach recognises that the purpose of the Act is to implement international obligations, and that the exact nature and extent of these obligations is likely to evolve in order to adequately protect the ozone layer.

The Bill therefore contains provisions relating to the purpose of the legislation, the framework for prohibitions in respect of ozone depleting substances and the granting of exemptions, codes of practice, offences and penalties, enforcement, and the regulation-making powers. The procedural requirements of the existing Act relating to the making of regulations are carried forward. These are—

- (a) Before certain regulations are made, the Minister for the Environment is required to consult with such affected parties (eg. representatives of the importers, exporters, manufacturers, vendors, or users of substances or goods to be prohibited by the regulations) as the Minister considers appropriate;
- (b) The Minister for the Environment is also required to be satisfied that, after making certain proposed regulations, New Zealand will be able to give effect to its obligations under the Convention and the Protocol;
- (c) The manufacture of goods in New Zealand cannot be prohibited unless, at the same time, the importation of those goods is also prohibited.

Hon. Simon Upton

OZONE LAYER PROTECTION

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A BILL INTITULED

An Act to implement in New Zealand the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer

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BE IT ENACTED by the Parliament of New Zealand as follows:

1. Short Title and commencement—(1) This Act may be cited as the Ozone Layer Protection Act 1995.

(2) This Act shall come into force on a date to be appointed by the Governor-General by Order in Council.

PART I

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PRELIMINARY

2. Interpretation—(1) In this Act, unless the context otherwise requires,—

“Code of practice” means any code that has been approved by the Minister for the Environment under section 10 of this Act: 10

“Convention” means the Vienna Convention for the Protection of the Ozone Layer (a copy of the English text of which is set out in the First Schedule to this Act), and includes any amendments to, or substitutions of, that Convention that are, or will become, binding on New Zealand from time to time: 15

“Minister” means the Minister of Commerce:

“Offence against this Act” includes any offence against any regulations made under this Act: 20

“Officer” means—

(a) Any person employed in the service of the Ministry of Commerce and designated as an officer for the purpose of this Act; and

(b) Any Customs officer: 25

“Ozone depleting substance” and “substance” means—

(a) Any controlled substance; or

(b) Any other substance that has an ozone depletion potential of 0.01 or greater:

“Prescribed” means prescribed by regulations made under this Act: 30

“Protocol” means the Montreal Protocol on Substances that Deplete the Ozone Layer, and includes any amendments to, or substitutions of, that Protocol that are, or will become, binding on New Zealand from time to time. 35

(2) Terms and expressions used and not defined in this Act or in regulations made under this Act but defined in the Convention or the Protocol shall, unless the context otherwise requires, have the same meaning as in the Convention or the Protocol. 40

3. Act to bind the Crown—This Act binds the Crown.

4. Purpose of Act—(1) The purpose of this Act is to help protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer—

5 (a) By providing for the phasing out of controlled substances as soon as possible (except for essential uses) and for the restriction of the use of other ozone depleting substances; and

10 (b) By giving effect to New Zealand's obligations under the Convention and the Protocol.

(2) Every person exercising any power or discretion under this Act shall have regard to that purpose.

Cf. 1990, No. 50, s. 4

5. Application of Act—This Act applies to—

15 (a) Bulk controlled substances; and

(b) Goods that contain any ozone depleting substance; and

(c) Goods that are designed to use any ozone depleting substance; and

20 (d) Goods that are manufactured, processed, or grown using any ozone depleting substance,—

as those terms are defined in this Act or in regulations made under **Part III** of this Act.

PART II

CONTROLS IN RESPECT OF OZONE DEPLETING SUBSTANCES

25 *Prohibitions*

6. Prohibitions in respect of ozone depleting substances—(1) It is unlawful to import into New Zealand substances or goods the importation of which is prohibited by regulations made under **Part III** of this Act.

30 (2) It is unlawful to export substances or goods the exportation of which is prohibited by regulations made under **Part III** of this Act.

(3) It is unlawful to manufacture in New Zealand substances or goods the manufacture of which is prohibited by regulations made under **Part III** of this Act.

35 (4) It is unlawful to sell in New Zealand substances or goods the sale of which is prohibited by regulations made under **Part III** of this Act.

40 (5) It is unlawful to use any substances or goods in New Zealand if that use is prohibited by regulations made under **Part III** of this Act.

7. Customs Act 1966 to apply to prohibited exports under this Part—The provisions of the Customs Act 1966 shall apply in respect of the export of any bulk controlled substances in contravention of this Act in all respects as if the export of those substances was prohibited under section 70 of the Customs Act 1966. 5

Cf. 1990, No. 50, s. 17B

Exemptions

8. Exemptions—(1) The Minister may, at his or her discretion, grant an exemption from any prohibition on the importation, exportation, manufacture, sale, or use of any substance or goods, or other obligation, imposed by this Act or any regulations made under this Act. 10

(2) An exemption may be granted only in accordance with regulations made under Part III of this Act. 15

9. Consideration of application for exemption—The Minister shall, in considering any application for an exemption under this Part of this Act, have regard to—

- (a) The need to phase out in New Zealand controlled substances as soon as possible (except for essential uses), and to restrict the use of other ozone depleting substances; and 20
- (b) New Zealand's obligations under the Convention and the Protocol; and
- (c) The technology available and whether any alternative products have been developed that may be used instead of the ozone depleting substance concerned; and 25
- (d) Whether the applicant has complied with any code of practice that applies to the business of the applicant; and 30
- (e) Whether the applicant has committed an offence against this Act.

Cf. 1990, No. 50, s. 30

Codes of Practice 35

10. Codes of practice—(1) The Minister for the Environment may, by notice in writing, require any person whose business is or includes—

- (a) The manufacture or use of any goods containing or designed to use, or manufactured using, controlled substances; or 40

(b) The installing, operating, servicing, modifying, or dismantling of any equipment containing or designed to use, or manufactured using, controlled substances; or

5 (c) The supply or use of any controlled substance,—
or any representative of such persons, to submit for approval a code of practice to be observed in the course of carrying on that business.

(2) Any such notice—

10 (a) Shall require that the code of practice incorporate appropriate training programmes for persons in the business; and

(b) Shall set out any other matters to be incorporated in the code of practice, and any matters incidental thereto; and

15 (c) Shall advise the recipient of the offences prescribed by subsection (3) of this section and section 11 of this Act.

(3) Any person or representative who fails, within 6 months after the date on which any such notice is sent to the person, to submit for approval a code of practice complying with the notice, commits an offence, and is liable on summary conviction to a fine not exceeding \$500.

Cf. 1990, No. 50, s. 33

Offences and Penalties

25 **11. Offences**—Subject to any regulations made under this Act, every person commits an offence against this Act who—

(a) Imports or exports any substances or goods in contravention of this Act; or

30 (b) Manufactures or uses any substances, or manufactures any goods, in contravention of this Act; or

(c) Knowingly, recklessly, or negligently sells any goods in contravention of this Act; or

35 (d) Fails without lawful justification or excuse to comply with any term or condition of any import permit or exemption; or

(e) Makes a statement or produces a document knowing that it is false or misleading in a material particular for the purpose of—

(i) Obtaining a permit or an exemption; or

40 (ii) Importing or exporting any substances or goods in contravention of this Act; or

- (f) Knowingly or without lawful justification or excuse releases a controlled substance into the atmosphere while—
- (i) Installing, operating, servicing, modifying, or dismantling any refrigeration or air-conditioning equipment or other heat-transfer medium; or
 - (ii) Installing, servicing, modifying, or dismantling any fire extinguisher.

Cf. 1990, No. 50, s. 34

12. Penalties—(1) Every person who commits an offence against **paragraph (a) or paragraph (b) or paragraph (c) of section 11** of this Act is liable on summary conviction,—

- (a) In the case of a person other than a body corporate, to a fine not exceeding \$50,000;
- (b) In the case of a body corporate, to a fine not exceeding \$150,000.

(2) Every person who commits an offence against **paragraph (d) or paragraph (e) of section 11** of this Act is liable on summary conviction,—

- (a) In the case of a person other than a body corporate, to a fine not exceeding \$25,000;
- (b) In the case of a body corporate, to a fine not exceeding \$75,000.

(3) Every person who commits an offence against **paragraph (f) of section 11** of this Act is liable on summary conviction to a fine not exceeding \$5,000.

Cf. 1990, No. 50, s. 35

PART III

REGULATIONS

13. Regulations—(1) Subject to **sections 14 and 15** of this Act, the Governor-General may from time to time, by Order in Council, make regulations—

- (a) Providing for any matter that is necessary or desirable to enable New Zealand to give effect to its obligations under the Convention or the Protocol;
- (b) Prohibiting the importation into New Zealand, or the exportation, or the manufacture, or the sale, or the use, of any substances or goods to which this Act applies either by reference to specified substances or goods, or substances or goods of a specified class, if the prohibition is necessary or desirable for meeting the purpose of this Act:

- (c) Prescribing the procedure in respect of applications for, and the granting of, import permits:
- (d) Prescribing the way in which quota is to be calculated for the purpose of import permits:
- 5 (e) Providing for the revocation and modification of import permits:
- (f) Providing for certain information relating to ozone depleting substances to be notified to the Minister:
- 10 (g) Prescribing any class or classes of substances or goods to which any prohibitions will, or will not, apply:
- (h) Prescribing the procedure to be followed by the Minister in respect of decision-making and appeals:
- (i) Prescribing the rules relating to the exemptions that may, or may not, be granted by the Minister:
- 15 (j) Prescribing the procedure in respect of applications for, and the granting of, exemptions:
- (k) Providing that in any case where any substance is, or goods are, imported into New Zealand before an exemption has been applied for or granted, the Comptroller of Customs may retain, at the expense of the importer, the substance or goods as prescribed:
- 20 (l) Providing for the period of validity, renewal, revocation, publication of, and the conditions attaching to, any exemption:
- 25 (m) Defining any terms that are used in this Act or any provision of any regulations made under this Act:
- (n) Prescribing such forms as are necessary for the purpose of this Act:
- 30 (o) Prescribing offences in respect of the contravention of or non-compliance with any provision of any regulations made under this Act, and prescribing fines, not exceeding \$5,000, that may, on summary conviction, be imposed in respect of any such offence:
- 35 (p) Prescribing the circumstances in which a person may have a lawful justification or excuse in respect of any act or omission that would otherwise be an offence against this Act:
- (q) Prescribing the circumstances in which a court may discharge without conviction a person who is charged with any offence against this Act:
- 40 (r) Prescribing the circumstances in which any substance or goods may be returned to the person from whom it was, or they were, seized:

- (s) Providing for the making of orders for payment of costs or for the restitution of any property:
 - (t) Amending the **First Schedule** to this Act by making such amendments to the text of the Convention as are required to bring that text up to date: 5
 - (u) Revoking the **First Schedule** to this Act, and substituting a new Schedule setting out in an up-to-date form the text of the Convention:
 - (v) Setting out from time to time the up-to-date text of the Protocol: 10
 - (w) Giving effect, for the purpose of this Act, to the terms of any international agreement relating to the protection of the ozone layer to which New Zealand is a party:
 - (x) Providing for such other matters as are contemplated by or are necessary for giving full effect to this Act and its due administration. 15
 - (2) A prohibition imposed under this section—
 - (a) May be general; or
 - (b) May be limited to the importation or exportation or manufacture or sale or use of substances or goods from a specified place or by or from a specified person or class of persons; or 20
 - (c) May, whether general or limited, be absolute or conditional. 25
 - (3) A conditional prohibition may allow the importation or exportation or manufacture or sale or use of substances or goods—
 - (a) Under the authority of a permit (whether granted before or after the importation, exportation, manufacture, sale, or use of the substances or goods): 30
 - (b) On or subject to any prescribed conditions.
- Cf. 1988, No. 157, s. 3

- 14. Consultation requirements, etc., before Order in Council made**—(1) No Order in Council shall be made under this Act that has the effect of prohibiting the importation, exportation, manufacture, sale, or use of substances or goods otherwise than on the recommendation of the Minister for the Environment. 35
- (2) Before making a recommendation under this section, the Minister for the Environment shall— 40
- (a) Consult with such persons who appear to that Minister to be affected (such as representatives of the importers, exporters, manufacturers, vendors, or users of

substances or goods to be prohibited by the Order, as the case may be), and other persons, as that Minister considers appropriate; and

5 (b) Satisfy himself or herself that, after making the proposed Order, New Zealand will be able to give effect to its obligations under the Convention and the Protocol.

(3) A failure to comply with **subsection (2)(a)** of this section shall not affect the validity of any Order in Council made under this Act.

10 Cf. 1990, No. 50, ss. 20 (2), 24 (2), 26 (2), 53 (2)

15. Manufacture of goods not to be prohibited unless importation also prohibited—No Order in Council shall be made under this Act prohibiting the manufacture in New Zealand of any goods unless, at the same time, an Order in Council is made under this Act prohibiting the importation of those goods.

Cf. 1990, No. 50, s. 24 (3)

PART IV

ENFORCEMENT

20 **16. Purpose for which powers may be exercised**—The powers conferred by this Part of this Act may be exercised to the extent reasonably necessary for the purpose of ensuring compliance with this Act and any regulations made under this Act.

25 Cf. 1990, No. 50, s. 36

17. Power of inspection—(1) If, in the opinion of any officer, there are reasonable grounds for believing that any person has committed, or is committing, any offence against this Act, that officer may require that person to produce for inspection any substances or goods, or any books, documents, or other records, relating to the offence.

30 (2) Any officer may inspect, and may make or cause to be made copies of, or extracts from, any books, documents or other records produced in accordance with **subsection (1)** of this section.

35 (3) Any officer may inspect any substances or goods produced in accordance with **subsection (1)** of this section and, where the officer has reasonable grounds to believe that the substances or goods may be evidence of an offence against this Act, may take or obtain samples of any such substances or goods.

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(4) Every officer exercising any of the powers conferred under this section shall, at the time of exercising that power, and thereafter on request, produce—

- (a) Evidence of that person's appointment as an officer; and
- (b) Evidence of that person's identity.

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(5) Every person commits an offence and is liable on summary conviction to a fine not exceeding \$2,000 who refuses or fails to comply with any requirement of an officer under this section.

(6) Nothing in this section shall limit or affect the privilege against self-incrimination.

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Cf. 1990, No. 50, s. 37

18. Search warrants—(1) Any District Court Judge or Justice or any Registrar (not being a constable) who is satisfied, on application in writing made on oath, that there are reasonable grounds for believing that there is in or on any premises any substances or goods, or any books, documents, or other records, which there are reasonable grounds to believe may be evidence of the commission of any offence against this Act, may issue a search warrant in the prescribed form.

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(2) Every search warrant shall be directed either to a member of the Police by name or to every member of the Police or to any officer by name, but in any of those cases, the warrant may be executed by any member of the Police.

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(3) On issuing a warrant, the Judge, Justice, or Registrar may impose such reasonable conditions on its execution as he or she thinks fit.

(4) Any member of the Police or any officer may call any person to assist him or her in the execution of a search warrant.

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(5) Every warrant shall, subject to any conditions imposed under **subsection (3)** of this section, authorise the member of the Police or the officer who is executing it, and any person called by that member or officer to assist,—

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- (a) To enter the premises on one occasion within 14 days of the date of the issue of the warrant at any time that is reasonable in the circumstances; and

- (b) To use such force, both for making entry (either by breaking open doors or otherwise) and for breaking open anything on the premises, as is reasonable in the circumstances; and

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- (c) To search for and seize any substances or goods found on the premises, and any books, documents, or other

records, which there are reasonable grounds to believe may be evidence of the commission of any offence against this Act.

5 (6) Any member of the Police or officer who executes a search warrant shall carry the warrant with him or her, and shall produce it for inspection—

(a) On first entering the premises, to the person appearing to be in charge of the premises; and

10 (b) Whenever subsequently required to do so on the premises, by any other person appearing to be in charge of the premises or any part of the premises.

(7) Where the occupier of the premises is not present at the time the search warrant is executed, the member of the Police or officer shall leave in a prominent place on the premises a written statement of the time and date of the search, and of that member's name and the address of the Police station or other office to which enquiries should be made.

15 (8) Where any substances or goods or books, documents, or other records are seized in execution of a search warrant, the member of the Police or officer executing the warrant shall leave in a prominent place on the premises or send to the occupier within 10 working days of the search a written inventory of all things so seized.

20 (9) For the purposes of this section, "premises" means any premises, building, aircraft, ship, carriage, vehicle, box, receptacle, or place.

(10) No warrant issued under this section shall authorise any person executing it to enter or search any restricted area within a defence area unless that person has a security clearance approved by the person in charge of the area.

30 Cf. 1990, No. 50, s. 38

19. Analysis of samples—Any sample obtained pursuant to this Act shall be dealt with as if it were a sample obtained pursuant to the Toxic Substances Act 1979, and the provisions of sections 54 to 56 and section 65 of that Act shall, with necessary modifications, apply in all respects as if references in those sections to an officer were references to a member of the Police or an officer within the meaning of this Act.

Cf. 1990, No. 50, s. 39

40 **20. Seizure by Customs officers**—Any Customs officer who, in the course of exercising a power conferred on that officer under the Customs Act 1966, finds any substance or goods that he or she believes on reasonable grounds have been

imported in contravention of this Act, may seize that substance or goods.

Cf. 1990, No. 50, s.40

21. Retention of property seized—(1) Subject to any regulations made under this Act relating to return of property seized, where any member of the Police seizes any substance or goods under this Act, it shall be retained by the Commissioner of Police pending the trial of the person in respect of the offence for which the substance or goods were seized. 5

(2) Subject to any regulations made under this Act relating to return of property seized, where any officer seizes any substance or goods under this Act, it shall be retained by the Comptroller of Customs or the Chief Executive of the Ministry of Commerce, as the case may be, pending the trial of the person in respect of the offence for which the substance or goods were seized. 10 15

Cf. 1990, No. 50, s. 41

22. Return or forfeiture of property seized—(1) If no proceedings are taken in respect of an offence within 12 months after the seizure of the substance or goods under this Act or, where proceedings are taken, no order of forfeiture is made under **subsection (3)** of this section, the substance or goods shall be returned to the person from whom they were seized. 20

(2) If any person directly affected by the seizure of any substance or goods appeals and the appeal is successful, the substance or goods shall be returned to the person from whom they were seized. 25

(3) Where any person has been convicted of an offence against **paragraph (a) or paragraph (b) or paragraph (c) or paragraph (d) of section 11** of this Act, the Court may, if it thinks fit, order that any substance or goods in relation to which the offence was committed shall be forfeited to the Crown and disposed of as the Minister for the Environment directs. 30

Cf. 1990, No. 50, s. 42

PART V

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MISCELLANEOUS PROVISIONS

23. Review of reduction timetables—The Minister and the Minister for the Environment shall undertake a review at least every 2 years to consider whether the prescribed

reduction timetables are appropriate given the technology available.

Cf. 1990, No. 50, s. 48

5 **24. Other Acts not affected**—The provisions of this Act are in addition to, and not in substitution for, the provisions of any other enactment relating to the importation, exportation, manufacture, sale, or use of any substances or goods, and nothing in this Act shall limit or otherwise affect any such provisions.

10 Cf. 1990, No. 50, s. 50

15 **25. Protection of officers and others**—A person who does any act in pursuance or intended pursuance of any of the functions conferred on that person under this Act shall not be under any civil or criminal liability in respect thereof, whether on the ground of want of jurisdiction, or mistake of law or fact, or on any other ground, unless the person has acted, or omitted to act, in bad faith or without reasonable cause.

Cf. 1990, No. 50, s. 51

20 **26. Annual report**—(1) The Minister and the Minister for the Environment shall, as soon as practicable after the end of each year, prepare a report on the operation of this Act during that year.

(2) The Minister shall lay a copy of the report before the House of Representatives as soon as practicable thereafter.

25 (3) Every such report shall, among other things, specify—

(a) The details of any exemptions granted during the year under this Act; and

(b) Such other matters as may be prescribed.

Cf. 1990, No. 50, s. 52

30 **27. Repeals and revocations**—(1) The enactments specified in the **Second** Schedule to this Act are hereby repealed.

(2) The regulation and orders specified in the **Third** Schedule to this Act are hereby revoked.

35 **28. Savings**—Every import permit granted under the Ozone Layer Protection Act 1990 and in force at the commencement of this Act shall, notwithstanding the repeal of that Act, continue in full force and effect until the date on which it expires or is sooner revoked, and shall be deemed to have been made under this Act.

SCHEDULES**Section 2 (1)****FIRST SCHEDULE****VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER***Preamble*

The Parties to this Convention,

Aware of the potentially harmful impact on human health and the environment through modification of the ozone layer,

Recalling the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, and in particular principle 21, which provides that "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction",

Taking into account the circumstances and particular requirements of developing countries,

Mindful of the work and studies proceeding within both international and national organizations and, in particular, of the World Plan of Action on the Ozone Layer of the United Nations Environment Programme,

Mindful also of the precautionary measures for the protection of the ozone layer which have already been taken at the national and international levels,

Aware that measures to protect the ozone layer from modifications due to human activities require international co-operation and action, and should be based on relevant scientific and technical considerations,

Aware also of the need for further research and systematic observations to further develop scientific knowledge of the ozone layer and possible adverse effects resulting from its modifications,

Determined to protect human health and the environment against adverse effects resulting from modifications of the ozone layer,

HAVE AGREED AS FOLLOWS:

Article 1

DEFINITIONS

For the purposes of this Convention:

1. "The ozone layer" means the layer of atmospheric ozone above the planetary boundary layer.

2. "Adverse effects" means changes in the physical environment or biota, including changes in climate, which have significant deleterious effects on human health or on the composition, resilience and productivity of natural and managed ecosystems, or on materials useful to mankind.

3. "Alternative technologies or equipment" means technologies or equipment the use of which makes it possible to reduce or effectively eliminate emissions of substances which have or are likely to have adverse effects on the ozone layer.

4. "Alternative substances" means substances which reduce, eliminate or avoid adverse effects on the ozone layer.

FIRST SCHEDULE—*continued*

VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

5. “Parties” means, unless the text otherwise indicates, Parties to this Convention.

6. “Regional economic integration organization” means an organization constituted by sovereign States of a given region which has competence in respect of matters governed by this Convention or its protocols and has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned.

7. “Protocols” means protocols to this Convention.

Article 2

GENERAL OBLIGATIONS

1. The Parties shall take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.

2. To this end the Parties shall, in accordance with the means at their disposal and their capabilities:

(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) Adopt appropriate legislative or administrative measures and co-operate in harmonizing appropriate policies to control, limit, reduce or prevent human activities under their jurisdiction or control should it be found that these activities have or are likely to have adverse effects resulting from modification or likely modification of the ozone layer;

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

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

3. The provisions of this Convention shall in no way affect the right of Parties to adopt, in accordance with international law, domestic measures additional to those referred to in paragraphs 1 and 2 above, nor shall they affect additional domestic measures already taken by a Party, provided that these measures are not incompatible with their obligations under this Convention.

4. The application of this article shall be based on relevant scientific and technical considerations.

Article 3

RESEARCH AND SYSTEMATIC OBSERVATIONS

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

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

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

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

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

(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;

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

(f) Alternative substances and technologies;

(g) Related socio-economic matters;

and as further elaborated in annexes I and II.

2. The Parties undertake to promote or establish, as appropriate, directly or through competent international bodies and taking fully into account national legislation and relevant ongoing 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, as elaborated in annex I.

3. The Parties undertake to co-operate, directly or through competent international bodies, in ensuring the collection, validation and transmission of research and observational data through appropriate world data centres in a regular and timely fashion.

Article 4

CO-OPERATION IN THE LEGAL, SCIENTIFIC AND TECHNICAL FIELDS

1. The Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this Convention as further elaborated in annex II. Such information shall be supplied to bodies agreed upon by the Parties. Any such body receiving information regarded as confidential by the supplying Party shall ensure that such information is not disclosed and shall aggregate it to protect its confidentiality before it is made available to all Parties.

2. The Parties shall co-operate, consistent with their national laws, regulations and practices 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. Such co-operation shall be carried out particularly through:

(a) Facilitation of the acquisition of alternative technologies by other Parties;

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

(c) The supply of necessary equipment and facilities for research and systematic observations;

(d) Appropriate training of scientific and technical personnel.

FIRST SCHEDULE—*continued*

VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

Article 5

TRANSMISSION OF INFORMATION

The Parties shall transmit, through the secretariat, to the Conference of the Parties established under article 6 information on the measures adopted by them in implementation of this Convention and of protocols to which they are party in such form and at such intervals as the meetings of the parties to the relevant instruments may determine.

Article 6

CONFERENCE OF THE PARTIES

1. A Conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the secretariat designated on an interim basis under article 7 not later than one year after entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting.

2. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to them by the secretariat, it is supported by at least one third of the Parties.

3. The Conference of the Parties shall by consensus agree upon and adopt rules of procedure and financial rules for itself and for any subsidiary bodies it may establish, as well as financial provisions governing the functioning of the secretariat.

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

(a) Establish the form and the intervals for transmitting the information to be submitted in accordance with article 5 and consider such information as well as reports submitted by any subsidiary body;

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

(c) Promote, in accordance with article 2, the harmonization of appropriate policies, strategies and measures 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;

(d) Adopt, in accordance with articles 3 and 4, programmes for research, systematic observations, scientific and technological co-operation, the exchange of information and the transfer of technology and knowledge;

(e) Consider and adopt, as required, in accordance with articles 9 and 10, amendments to this Convention and its annexes;

(f) Consider amendments to any protocol, as well as to any annexes thereto, and, if so decided, recommend their adoption to the parties to the protocol concerned;

(g) Consider and adopt, as required, in accordance with article 10, additional annexes to this Convention;

(h) Consider and adopt, as required, protocols in accordance with article 8;

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

(i) Establish such subsidiary bodies as are deemed necessary for the implementation of this Convention;

(j) Seek, where appropriate, the services of competent international bodies and scientific committees, in particular the World Meteorological Organization and the World Health Organization, as well as 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 these bodies and committees;

(k) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

5. 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 Parties by observers. Any body or agency, whether national or international, governmental or non-governmental, 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 of the Parties as an observer may be admitted unless at least one-third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

Article 7

SECRETARIAT

1. The functions of the secretariat shall be:

(a) To arrange for and service meetings provided for in articles 6, 8, 9 and 10;

(b) To prepare and transmit reports based upon information received in accordance with articles 4 and 5, as well as upon information derived from meetings of subsidiary bodies established under article 6;

(c) To perform the functions assigned to it by any protocol;

(d) To prepare reports on its activities carried out in implementation of its functions under this Convention and present them to the Conference of the Parties;

(e) 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 its functions;

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

2. The secretariat functions will be carried out on an interim basis by the United Nations Environment Programme until the completion of the first ordinary meeting of the Conference of the Parties held pursuant to article 6. At its first ordinary meeting, the Conference of the Parties shall designate the secretariat from amongst those existing competent international organizations which have signified their willingness to carry out the secretariat functions under this Convention.

FIRST SCHEDULE—*continued*

VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

Article 8

ADOPTION OF PROTOCOLS

1. The Conference of the Parties may at a meeting adopt protocols pursuant to article 2.
2. The text of any proposed protocol shall be communicated to the Parties by the secretariat at least six months before such a meeting.

Article 9

AMENDMENT OF THE CONVENTION OR PROTOCOLS

1. Any Party may propose amendments to this Convention or to any protocol. Such amendments shall take due account, *inter alia*, of relevant scientific and technical considerations.
2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the protocol in question. The text of any proposed amendment to this Convention or to any protocol, except as may otherwise be provided in such protocol, shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate proposed amendments to the signatories to this Convention for information.
3. The Parties shall make every effort to reach agreement on any proposed 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 Parties present and voting at the meeting, and shall be submitted by the Depositary to all Parties for ratification, approval or acceptance.
4. The procedure mentioned in paragraph 3 above shall apply to amendments to any protocol, except that a two-thirds majority of the parties to that protocol present and voting at the meeting 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 paragraphs 3 or 4 above shall enter into force between parties having accepted them on the ninetieth day after the receipt by the Depositary of notification of their ratification, approval or acceptance by at least three-fourths of the Parties to this Convention or by at least two-thirds of the parties to the protocol concerned, except as may otherwise be provided in such protocol. Thereafter the amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval or acceptance of the amendments.
6. For the purposes of this article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

Article 10

ADOPTION AND AMENDMENT OF ANNEXES

1. The annexes to this Convention or to any protocol shall form an integral part of this Convention or of such protocol, as the case may be,

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

and, unless expressly provided otherwise, a reference to this Convention or its protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to scientific, technical and administrative matters.

2. Except as may be otherwise provided in any protocol with respect to its annexes, the following procedures shall apply to the proposal, adoption and entry into force of additional annexes to this Convention or of annexes to a protocol:

(a) Annexes to this Convention shall be proposed and adopted according to the procedure laid down in article 9, paragraphs 2 and 3, while annexes to any protocol shall be proposed and adopted according to the procedure laid down in article 9, paragraphs 2 and 4;

(b) Any party that is unable to approve an additional annex to this Convention or an annex to any protocol to which it is party shall so notify the Depositary, in writing, within six months from the date of the communication of the adoption by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for a previous declaration of objection and the annexes 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 annex shall become effective for all Parties to this Convention or to any protocol concerned which have not submitted a notification in accordance with the provision of subparagraph (b) above.

3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to a protocol. Annexes and amendments thereto shall take due account, *inter alia*, of relevant scientific and technical considerations.

4. If an additional annex or an amendment to an annex involves an amendment to this Convention or to any protocol, the additional annex or amended annex shall not enter into force until such time as the amendment to this Convention or to the protocol concerned enters into force.

Article 11

SETTLEMENT OF DISPUTES

1. In the event of a dispute between Parties concerning the interpretation or application of this Convention, the parties concerned shall seek solution by negotiation.

2. If the parties concerned cannot reach agreement by negotiation, they may jointly seek the good offices of, or request mediation by, a third party.

3. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a State or regional economic integration organization may declare in writing to the Depositary that for a dispute not resolved in accordance with paragraph 1 or paragraph 2 above, it accepts one or both of the following means of dispute settlement as compulsory:

FIRST SCHEDULE—*continued*

VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

(a) Arbitration in accordance with procedures to be adopted by the Conference of the Parties at its first ordinary meeting;

(b) Submission of the dispute to the International Court of Justice.

4. If the parties have not, in accordance with paragraph 3 above, accepted the same or any procedure, the dispute shall be submitted to conciliation in accordance with paragraph 5 below unless the parties otherwise agree.

5. A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall be composed of an equal number of members appointed by each party concerned and a chairman chosen jointly by the members appointed by each party. The commission shall render a final and recommendatory award, which the parties shall consider in good faith.

6. The provisions of this article shall apply with respect to any protocol except as otherwise provided in the protocol concerned.

Article 12

SIGNATURE

This Convention shall be open for signature by States and by regional economic integration organizations at the Federal Ministry for Foreign Affairs of the Republic of Austria in Vienna from 22 March 1985 to 21 September 1985, and at United Nations Headquarters in New York from 22 September 1985 to 21 March 1986.

Article 13

RATIFICATION, ACCEPTANCE OR APPROVAL

1. This Convention and any protocol shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. Instruments of ratification, acceptance or approval shall be deposited with the Depositary.

2. Any organization referred to in paragraph 1 above which becomes a Party to this Convention or any protocol without any of its member States being a Party shall be bound by all the obligations under the Convention or the protocol, as the case may be. In the case of such organizations, one or more of whose member States is a Party to the Convention or relevant protocol, the organization and its member States shall decide on their respective responsibilities for the performance of their obligation under the Convention or protocol, as the case may be. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention or relevant protocol concurrently.

3. In their instruments of ratification, acceptance or approval, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
*continued*Article 14

ACCESSION

1. This Convention and any protocol shall be open for accession by States and by regional economic integration organizations 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 above shall declare the extent to their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

3. The provisions of article 13, paragraph 2, shall apply to regional economic integration organizations which accede to this Convention or any protocol.

Article 15

RIGHT TO VOTE

1. Each Party to this Convention or to any protocol shall have one vote.

2. Except as provided for in paragraph 1 above, regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to the Convention or the relevant protocol. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 16

RELATIONSHIP BETWEEN THE CONVENTION AND ITS PROTOCOLS

1. A State or a regional economic integration organization may not become party to a protocol unless it is, or becomes at the same time, a Party to the Convention.

2. Decisions concerning any protocol shall be taken only by the 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 twentieth instrument of ratification, acceptance, approval or accession.

2. Any protocol, except as otherwise provided in such protocol, shall enter into force on the ninetieth day after the date of deposit of the eleventh instrument of ratification, acceptance or approval of such protocol or accession thereto.

3. For each Party which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the twentieth instrument of ratification, acceptance, approval or accession, it shall enter into force on the ninetieth day after the date of deposit by such Party of its instrument of ratification, acceptance, approval or accession.

FIRST SCHEDULE—*continued*

VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

4. Any protocol, except as otherwise provided in such protocol, shall enter into force for a party that ratifies, accepts or approves that protocol or accedes thereto after its entry into force pursuant to paragraph 2 above, on the ninetieth day after the date on which that party deposits its instrument of ratification, acceptance, approval or accession, or on the date on which the Convention enters into force for that Party, whichever shall be the later.

5. For the purposes of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

Article 18

RESERVATIONS

No reservations may be made to this Convention.

Article 19

WITHDRAWAL

1. At any time after four years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.

2. Except as may be provided in any protocol, at any time after four years from the date on which such protocol has entered into force for a party, that party may withdraw from the protocol by giving written notification to the Depositary.

3. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

4. Any Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it is party.

Article 20

DEPOSITARY

1. The Secretary-General of the United Nations shall assume the functions of depositary of this Convention and any protocols.

2. The Depositary shall inform the Parties, in particular, of:

(a) The signature of this Convention and of any protocol, and the deposit of instruments of ratification, acceptance, approval or accession in accordance with articles 13 and 14;

(b) The date on which the Convention and any protocol will come into force in accordance with article 17;

(c) Notifications of withdrawal made in accordance with article 19;

(d) Amendments adopted with respect to the Convention and any protocol, their acceptance by the parties and their date of entry into force in accordance with article 9;

(e) All communications relating to the adoption and approval of annexes and to the amendment of annexes in accordance with article 10;

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

(f) Notifications by regional economic integration organizations of the extent of their competence with respect to matters governed by this Convention and any protocols, and of any modifications thereof;

(g) Declarations made in accordance with article 11, paragraph 3.

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 Vienna

on the 22nd day of March 1985.

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
*continued*Annex I

RESEARCH AND SYSTEMATIC OBSERVATIONS

1. The Parties to the Convention recognize that the major scientific issues are:

(a) Modification of the ozone layer which would result in a change in the amount of solar ultra-violet radiation having biological effects (UV-B) that reaches the Earth's surface and the potential consequences for human health, for organisms, ecosystems and materials useful to mankind;

(b) Modification of the vertical distribution of ozone, which could change the temperature structure of the atmosphere and the potential consequences for weather and climate.

2. The Parties to the Convention, in accordance with article 3, shall cooperate in conducting research and systematic observations and in formulating recommendations for future research and observation in such areas as:

(a) *Research into the physics and chemistry of the atmosphere*

(i) Comprehensive theoretical models: further development of models which consider the interaction between radiative, dynamic and chemical 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; 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: the concentration and fluxes of key source gases of both natural and anthropogenic origin; atmospheric dynamics studies; simultaneous measurements of photochemically-related species down to the planetary boundary layer, using *in situ* and remote sensing instruments; intercomparison of different sensors, including co-ordinated correlative measurements for satellite instrumentation; three-dimensional fields of key atmospheric trace constituents, solar spectral flux and meteorological parameters;

(iv) Instrument development, including satellite and non-satellite sensors for atmospheric trace constituents, solar flux and meteorological parameters;

(b) *Research into health, biological and photodegradation effects*

(i) The relationship between human exposure to visible and ultra-violet solar radiation and (a) the development of both non-melanoma and melanoma skin cancer and (b) the effects on the immunological system;

(ii) Effects of UV-B radiation, including the wavelength dependence, upon (a) agricultural crops, forests and other terrestrial ecosystems and (b) the aquatic food web and fisheries, as well as possible inhibition of oxygen production by marine phytoplankton;

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

- (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;
- (vi) The influence of UV-B radiation on the photodegradation of pollutants, agricultural chemicals and other materials;
- (c) *Research on effects on climate*
 - (i) Theoretical and observational studies of the radiative effects of ozone and other trace species and the impact on climate parameters, such as land and ocean surface temperatures, precipitation patterns, the exchange between the troposphere and stratosphere;
 - (ii) The investigation of the effects of such climate impacts on various aspects of human activity;
- (d) *Systematic observations on*
 - (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, C10_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, and thermal radiation leaving, the Earth's atmosphere, utilizing satellite measurements;
 - (v) Wavelength-resolved solar flux reaching the Earth's surface in the ultra-violet range having biological effects (UV-B);
 - (vi) Aerosol properties and distribution from the ground to the mesosphere, utilizing ground-based, airborne and satellite systems;
 - (vii) Climatically important variables by the maintenance of programmes of high-quality meteorological surface measurements;
 - (viii) Trace species, temperatures, solar flux and aerosols utilizing improved methods for analyzing global data.

3. The Parties to the Convention shall co-operate, taking into account the particular needs of the developing countries, in promoting the appropriate scientific and technical training required to participate in the research and systematic observations outlined in this annex. Particular emphasis should be given to the intercalibration of observational instrumentation and methods with a view to generating comparable or standardized scientific data sets.

4. The following chemical substances of natural and anthropogenic origin, not listed in order of priority, are thought to have the potential to modify the chemical and physical properties of the ozone layer.

- (a) Carbon substances

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued(i) *Carbon monoxide (CO)*

Carbon monoxide 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*

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.

(b) *Nitrogen substances*(i) *Nitrous oxide (N₂O)*

The dominant sources of N₂O are natural, but anthropogenic contributions are becoming increasingly important. Nitrous oxide 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 may lead directly to a change in upper tropospheric and stratospheric ozone.

(c) *Chlorine substances*(i) *Fully halogenated alkanes, e.g. CCl₄, CFC1₃, (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 plays a vital role in ozone photochemistry, especially in the 30–50 km altitude region.

(ii) *Partially halogenated alkanes, e.g. CH₃Cl, CHF₂Cl (CFC-22), CH₂Cl₂, 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.

(d) *Bromine substances**Fully halogenated alkanes, e.g. CF₃Br*

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

(e) *Hydrogen substances*(i) *Hydrogen (H₂)*

Hydrogen, the source of which is natural and anthropogenic, plays a minor role in stratospheric photochemistry.

(ii) *Water (H₂O)*

Water, the source of which is natural, plays a vital role in both tropospheric and stratospheric photochemistry. Local sources of water

FIRST SCHEDULE—*continued*VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

vapour in the stratosphere include the oxidation of methane and, to a lesser extent, of hydrogen.

Annex II

INFORMATION EXCHANGE

1. The Parties to the Convention recognize 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. Therefore, Parties shall exchange scientific, technical, socio-economic, business, commercial and legal information.

2. The Parties to the Convention, in deciding what information is to be collected and exchanged, should take into account the usefulness of the information and the costs of obtaining it. The Parties further recognize that co-operation under this annex has to be consistent with national laws, regulations and practices regarding patents, trade secrets, and protection of confidential and proprietary information.

3. *Scientific information*

This includes information on:

(a) Planned and ongoing 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;

(b) The emission data needed for research;

(c) Scientific results published in peer-reviewed literature on the understanding of 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 effects on human health, environment and climate which would result from changes on all time-scales in either the total column content or the vertical distribution of ozone;

(d) The assessment of research results and the recommendations for future research.

4. *Technical information*

This includes information on:

(a) The availability and cost of chemical 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.

5. *Socio-economic and commercial information on the substances referred to in annex I*

This includes information on:

(a) Production and production capacity;

(b) Use and use patterns;

(c) Imports/exports;

(d) The costs, risks and benefits of human activities which may indirectly modify the ozone layer and of the impacts of regulatory actions taken or being considered to control these activities.

6. *Legal information*

FIRST SCHEDULE—*continued*

VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER—
continued

This includes information on:

- (a) National laws, administrative measures and legal research relevant to the protection of the ozone layer;
 - (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.
-

Section 27 (1)**SECOND SCHEDULE****ENACTMENTS REPEALED**

1990, No. 50—The Ozone Layer Protection Act 1990.

1993, No. 3—The Ozone Layer Protection Amendment Act 1993.

1994, No. 1—The Ozone Layer Protection Amendment Act 1994.

Section 27 (2)**THIRD SCHEDULE****REGULATION AND ORDERS REVOKED**

Title	Statutory Regulations Serial Number
The Ozone Layer Protection (Prescribed Form) Regulations 1990	1990/306
The Ozone Layer Protection Order 1991 ...	1991/109
The Ozone Layer Protection Order 1992 ...	1992/59
The Ozone Layer Protection Order 1993 ...	1993/116
The Ozone Layer Protection (Import Prohibition) Order 1993	1993/117