

18.7.3 Nuclear energy

In 1956 the International Atomic Energy Agency (IAEA) was established with the objective of encouraging the use of nuclear power. The Stockholm Conference 1972 indicated particular concern about nuclear waste and the dumping of radio-active waste at sea was outlawed by the London Dumping Convention 1972. Gradually too, the IAEA was given strongly enhanced powers with regard to the safety of nuclear installations including the right to carry out inspections. The basis of the legal regime pertaining to nuclear power is the requirement of publicity and notification, especially of significant risks, but also to encourage the spread of best practices with regard to safety.

Following the Chernobyl accident, when for some considerable time it was impossible to know exactly the extent of the disaster, the Convention on Assistance in Case of Nuclear Accident or Radiological Emergency 1986⁴¹ and the Convention on Early Notification of Nuclear Accident 1986⁴² were signed setting down some important provisions applicable should an accident or emergency occur.

18.8 Conservation of natural resources

Control of pollution is only one aspect of international environmental law. Principle 2 of the Stockholm Declaration proclaimed that the natural resources of the earth should be safeguarded for the benefit of present and future generations. The principle marks a shift away from ideas of absolute sovereignty over natural resources and has been followed by a number of conventions dealing both with general and specific aspects of conservation.

In 1980 the International Union for Conservation of Nature and Natural Resources (IUCN), a non-governmental organisation commissioned by UNEP to draw up a conservation action plan, published the 'World Conservation Strategy'. The aim of the strategy was to advance the achievement of sustainable development through the conservation of living resources. The strategy represents a consensus reached by the scientific community and those concerned with the environment. In the same year the General Assembly of the United Nations passed a resolution on conservation:

41 Convention on Assistance in Case of Nuclear Accident or Radiological Emergency, done at Vienna, 26 September 1986. Entered into force 26 February 1987. Reproduced in (1986) 25 *ILM* 1377.

42 Convention on Early Notification of a Nuclear Accident, done at Vienna, 26 September 1986. Entered into force 27 October 1986. Reproduced in (1986) 25 *ILM* 1370.

UN GENERAL ASSEMBLY RESOLUTION 35/8 (30 OCTOBER 1980) – HISTORICAL RESPONSIBILITY OF STATES FOR THE PRESERVATION OF NATURE FOR PRESENT AND FUTURE GENERATIONS

The General Assembly,

Having considered the item entitled 'Historical responsibility of states for the preservation of nature for present and future generations',

Conscious of the disastrous consequences which a war involving the use of nuclear weapons and other weapons of mass destruction would have on man and his environment,

Noting that the continuation of the arms race, including the testing of various types of weapons, especially nuclear weapons, and the accumulation of toxic chemicals are adversely affecting the human environment and damaging the vegetable and animal world,

Bearing in mind that the arms race is diverting material and intellectual resources from the solution of the urgent problems of preserving nature,

Attaching great importance to the development of planned, constructive international co-operation in solving the problems of preserving nature,

Recognising that the prospects for solving problems so universal as the preservation of nature are closely linked to the strengthening and development of international détente and the creation of conditions which would banish war from the life of mankind,

Noting with satisfaction the drafting and signature in recent years of a number of international agreements designed to preserve the environment,

Determined to preserve nature as a prerequisite for the normal life of man

- 1 Proclaims the historical responsibility of states for the preservation of nature for present and future generations;
- 2 Draws the attention of states to the fact that the continuing arms race has pernicious effects on the environment and reduces the prospects for the necessary international co-operation in preserving nature on our planet;
- 3 Calls upon states, in the interest of present and future generations, to demonstrate due concern and take the measures, including legislative measures, necessary for preserving nature, and also to promote international co-operation in this field;
- 4 Requests the Secretary General, with the co-operation of the United Nations Environment Programme, to prepare a report on the pernicious effects of the arms race on nature and to seek the views of states on possible measures to be taken at the international level for the preservation of nature;
- 5 Decides to include in the provisional agenda of its thirty-sixth session an item entitled 'Historical responsibility of states for the preservation of nature for present and future generations: report of the Secretary General'.

Two years later a more strongly worded document was adopted:

WORLD CHARTER FOR NATURE⁴³

I GENERAL PRINCIPLES

- 1 Nature shall be respected and its essential processes shall not be impaired.
- 2 The genetic viability on the earth shall not be compromised; the population levels of all life forms, wild and domesticated, must be at least sufficient for their survival, and to this end necessary habitats shall be safeguarded.
- 3 All areas of the earth, both land and sea, shall be subject to these principles of conservation; special protection shall be given to unique areas, to representative samples of all the different types of ecosystems and to the habitats of rare or endangered species.
- 4 Ecosystems and organisms, as well as the land, marine and atmospheric resources that are utilised by man, shall be managed to achieve and maintain optimum sustainable productivity, but not in such a way as to endanger the integrity of those other ecosystems or species with which they coexist.
- 5 Nature shall be secured against degradation caused by warfare or other hostile activities.

II FUNCTIONS

- 6 In the decision-making process it shall be recognised that man's needs can be met only by ensuring the proper functioning of natural systems and by respecting the principles set forth in the present Charter.
- 7 In the planning and implementation of social and economic development activities, due account shall be taken of the fact that the conservation of nature is an integral part of those activities.
- 8 In formulating long-term plans for economic development, population growth and the improvement of standards of living, due account shall be taken of the long-term capacity of natural systems to ensure the subsistence and settlement of the populations concerned, recognising that this capacity may be enhanced through science and technology.
- 9 The allocation of areas of the earth to various uses shall be planned and due account shall be taken of the physical constraints, the biological productivity and diversity and the natural beauty of the areas concerned.
- 10 Natural resources shall not be wasted, but used with a restraint appropriate to the principles set forth in the present Charter, in accordance with the following rules:
 - (a) living resources shall not be utilised in excess of their natural capacity for regeneration;
 - (b) the productivity of soils shall be maintained or enhanced through measures which safeguard their long-term fertility and the process of organic decomposition, and prevent erosion and all other forms of degradation;
 - (c) resources, including water, which are not consumed as they are used shall be reused or recycled;
 - (d) non-renewable resources which are consumed as they are used shall be exploited with restraint, taking into account their abundance, the rational

⁴³ Adopted by the UN General Assembly, 28 October 1982. UNGA Res 37/7, UN GAOR Supp (No 51) 21, UN Doc A/37/L4 and Add 1 (1982).

possibilities of converting them for consumption, and the compatibility of their exploitation with the functioning of natural systems.

- 11 Activities which might have an impact on nature shall be controlled, and the best available technologies that minimise significant risks to nature or other adverse effects shall be used; in particular:
- (a) activities which are likely to cause irreversible damage to nature shall be avoided;
 - (b) activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed;
 - (c) activities which may disturb nature shall be preceded by assessment of their consequences and environmental impact studies of development projects shall be conducted sufficiently in advance, and if they are to be undertaken, such activities shall be planned and carried out so as to minimise potential adverse effects;
 - (d) agriculture, grazing, forestry and fisheries practices shall be adapted to the natural characteristics and constraints of given areas;
 - (e) areas degraded by human activities shall be rehabilitated for purposes in accord with their natural potential and compatible with the well-being of affected populations.
- 12 Discharge of pollutants into natural systems shall be avoided and:
- (a) where this is not feasible, such pollutants shall be treated at the source, using the best practicable means available;
 - (b) special precautions shall be taken to prevent discharge of radioactive or toxic wastes.
- 13 Measures intended to prevent, control or limit natural disasters, infestations and diseases shall be specifically directed to the causes of these scourges and shall avoid adverse side-effects on nature.

III IMPLEMENTATION

- 14 The principles set forth in the present Charter shall be reflected in the law and practice of each state, as well as at the international level.
- 15 Knowledge of nature shall be broadly disseminated by all possible means, particularly by ecological education as an integral part of general education.
- 16 All planning shall include, among its essential elements, the formulation of strategies for the conservation of nature, the establishment of inventories of ecosystems and assessments of the effects on nature of proposed policies and activities; all of these elements shall be disclosed to the public by appropriate means in time to permit effective consultation and participation.
- 17 Funds, programmes and administrative structures necessary to achieve the objective of the conservation of nature shall be provided.
- 18 Constant efforts shall be made to increase knowledge of nature by scientific research and to disseminate such knowledge unimpeded by restrictions of any kind.
- 19 The status of natural processes, ecosystems and species shall be closely monitored to enable early detection of degradation or threat, ensure timely intervention and facilitate the evaluation of conservation policies and methods.

- 20 Military activities damaging to nature shall be avoided, and in particular:
- (a) further development, testing and use of nuclear, biological, chemical or environmental modification methods of warfare shall be prohibited; and
 - (b) protected areas, the Antarctic region and outer space shall be free of military activity.
- 21 States and, to the extent they are able, other public authorities, international organisations, individuals, groups and corporations shall:
- (a) co-operate in the task of conserving nature through common activities and other relevant actions, including information exchange and consultations;
 - (b) establish standards for products and manufacturing processes that may have adverse effects on nature, as well as agreed methodologies for assessing these effects;
 - (c) implement the applicable international legal provisions for the conservation of nature and the protection of the environment;
 - (d) ensure that activities within their jurisdictions or control do not cause damage to the natural systems located within other states or in the areas beyond the limits of national jurisdiction;
 - (e) safeguard and conserve nature in areas beyond national jurisdiction.
- 22 Taking fully into account the sovereignty of states over their natural resources, each state shall give effect to the provisions of the present Charter through its competent organs and in co-operation with other states.
- 23 All persons, in accordance with their national legislation, shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment, and shall have access to means of redress when their environment has suffered damage or degradation.
- 24 Each person has a duty to act in accordance with the provisions of the present Charter; acting individually, in association with others or through participation in the political process, each person shall strive to ensure that the objectives of the present Charter are met.

As has already been seen, many of the provisions of the World Charter for Nature were re-affirmed and developed in the Rio Declaration 1992 and Agenda 21 also provided the framework for future action.

18.8.1 Conservation of migratory and land-based species

As far as existing conventional law is concerned, the emphasis has been on conservation of living resources. Some treaties refer to specific species, for example, the Agreement on the Conservation of Polar Bears 1973, while others impose rules of more general application. In addition there are a number of bilateral agreements relating to conservation. There are four multilateral treaties which are regarded as being particularly significant:

- Convention on Wetlands of International Importance 1971 (Ramsar Convention);
- Convention for the protection of the World Cultural and National Heritage 1972 (the World Heritage Convention);
- Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973 (CITES);

- Convention on the Conservation of Migratory Species of Wild Animals 1980 (Bonn Convention).

All four adopt different approaches to the problem of conservation. The Ramsar Convention and the Bonn Convention make provision for the protection of habitats and the Ramsar Convention refers to sustainable utilisation of wetland areas. The World Heritage Convention is concerned with identifying natural sites of particular importance and imposing specific obligations in respect of such sites. The convention also establishes a trust fund to be administered through UNESCO for assisting in the protection of such sites. The Bonn Convention, in addition to providing habitat protection, also seeks to protect migratory species during the course of their migration. The convention is particularly concerned to encourage co-operation between states for the protection of migratory species. CITES has been the most successful of the four Conventions; it attempts to encourage conservation by outlawing commercial trade in endangered species, the view being that the ending of commercial trade will result in the ending of endangered status of many species. The Convention lists two categories of endangered species: those seriously threatened with extinction in which all trade is prohibited, and those which are not yet threatened with extinction but which may become so if trade continues uncontrolled. Trade in the latter category is permitted but is subject to stringent controls.

CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE⁴⁴

The Contracting Parties,

Recognising the interdependence of man and his environment;

Considering the fundamental ecological functions of wetlands as regulators of water regimes and as habitats supporting a characteristic flora and fauna, especially waterfowl;

Being convinced that wetlands constitute a resource of great economic, cultural, scientific and recreational value, the loss of which would be irreparable;

Desiring to stem the progressive encroachment on and loss of wetlands now and in the future;

Recognising that waterfowl in their seasonal migrations may transcend frontiers and so should be regarded as an international resource;

Being confident that the conservation of wetlands and their flora and fauna can be ensured by combining far-sighted national policies with co-ordinated international action;

Have agreed as follows:

Article 1

1 For the purpose of this Convention wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with

44 Done at Ramsar, Iran on 2 February 1971, entered into force 21 December 1975.

water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.

2 For the purpose of this Convention waterfowl are birds ecologically dependent on wetlands.

Article 2

1 Each Contracting party shall designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance, hereinafter referred to as 'the List' which is maintained by the bureau established under Article 8. The boundaries of each wetland shall be precisely described and also delimited on a map and they may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands, especially where these have an importance as waterfowl habitat.

2 Wetlands should be selected for the List on account of their international significance in terms of ecology, botany, zoology, limnology or hydrology. In the first instance, wetlands of international importance to waterfowl at any season should be included.

3 The inclusion of a wetland in the List does not prejudice the exclusive sovereign rights of the Contracting Party in whose territory the wetland is situated.

4 Each Contracting Party shall designate at least one wetland to be included in the List when signing this Convention or when depositing its instrument of ratification or accession, as provided in Article 9.

5 Any Contracting Party shall have the right to add to the List further wetlands situated within its territory, to extend the boundaries of those wetlands already included by it in the List and shall, at the earliest possible time, inform the organisation or government responsible for the continuing bureau duties specified in Article 8 of such changes.

6 Each Contracting Party shall consider its international responsibilities for the conservation, management and wise use of migratory stocks of waterfowl, both when designating entries for the List and when exercising its right to change entries in the List relating to wetlands within its territory.

Article 3

1 The Contracting Parties shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory.

2 Each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. Information on such changes shall be passed without delay to the organisation or government responsible for the continuing bureau duties specified in Article 8.

Article 4

1 Each Contracting Party shall promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands, whether they are included in the List or not, and provide adequately for their wardening.

2 When a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources, and in particular it should create

additional reserves for waterfowl and for the protection, either in the same area or elsewhere, of an adequate portion of the original habitat.

3 The Contracting Parties shall encourage research and the exchange of data and publications regarding wetlands and their flora and fauna.

4 The Contracting Parties shall endeavour through management to increase waterfowl populations on appropriate wetlands.

5 The Contracting Parties shall promote the training of personnel competent in the fields of wetland research, management and wardening.

Article 5

The Contracting Parties shall consult with each other about implementing obligations arising from the Convention especially in the case of a wetland extending over the territories of more than one Contracting Party or where a water system is shared by Contracting Parties.

They shall at the same time endeavour to co-ordinate and support present and future policies and regulations concerning the conservation of wetlands and their flora and fauna.

CONVENTION FOR THE PROTECTION OF THE WORLD CULTURAL AND NATIONAL HERITAGE 1972 (THE WORLD HERITAGE CONVENTION)⁴⁵

I Definitions of the cultural and the natural heritage

Article 1

For the purposes of this Convention, the following shall be considered as 'cultural heritage':

monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;

groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;

sites: works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view.

Article 2

For the purposes of this Convention, the following shall be considered as 'natural heritage':

natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;

45 Convention for the Protection of the World Cultural and National Heritage 1972 (the World Heritage Convention), done at Paris, 23 November 1972. Entered into force 17 December 1975.

geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;

natural sites or precisely delineated areas of universal value from the point of view of science, conservation or natural beauty.

Article 3

It is for each State Party to this Convention to identify and delineate the different properties situated on its territory mentioned in Articles 1 and 2 above.

II National protection and international protection of the cultural and natural heritage

Article 4

Each State Party to this Convention recognises that the duty of ensuring the identifications, protection, conservation, preservation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that state. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.

Article 5

To ensure that effective and active measures are taken for the protection, conservation and preservation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavour, in so far as possible, and as appropriate for each country:

- (a) to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;
- (b) to set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;
- (c) to develop scientific and technical studies and research and to work out such operating methods as will make the state capable of counteracting the dangers that threaten its cultural or natural heritage;
- (d) to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage; and
- (e) to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.

Article 6

1 While fully respecting the sovereignty of the states on whose territory the cultural and natural heritage mentioned in Articles 1 and 2 is situated, and without prejudice to property rights provided by national legislation, the States Parties to this Convention recognise that such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate.

2 The States Parties undertake, in accordance with the provisions of this Convention, to give their help in the identification, protection, conservation and preservation of the cultural and natural heritage referred to in paras 2 and 4 of Article 11 if the state on whose territory it is situated so request.

3 Each State Party to this Convention undertakes not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage referred to in Articles 1 and 2 situated on the territory of other States Parties to this Convention.

Article 7

For the purposes of this Convention, international protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international co-operation and assistance designed to support States Parties to the Convention in their efforts to conserve and identify that heritage.

II Intergovernmental committee for the protection of the world cultural and natural heritage

Article 8

1 An intergovernmental committee for the protection of the cultural and natural heritage of outstanding universal value, called 'the World Heritage Committee', is hereby established within the United Nations Educational, Scientific and Cultural Organisation. It shall be composed of 15 States Parties to the Convention, elected by States Parties to the Convention meeting in general assembly during the ordinary session of the General Conference of the United Nations Educational, Scientific and Cultural Organisation. The number of States members of the Committee shall be increased to 21 as from the date of the ordinary session of the General Conference following the entry into force of this Convention for at least 40 states.

2 Election of members of the Committee shall ensure an equitable representation of the different regions and cultures of the world.

...

Article 11

1 Every State Party to this Convention shall, in so far as possible, submit to the World Heritage Committee an inventory of property forming part of the cultural and natural heritage, situated in its territory and suitable for inclusion in the list provided for in para 2 of this article. This inventory, which shall not be considered exhaustive, shall include documentation about the location of the property in question and its significance.

2 On the basis of the inventories submitted by states in accordance with para 1, the Committee shall establish, keep up to date and publish, under the title of 'World Heritage List', a list of properties forming part of the cultural and natural heritage, as defined in Articles 1 and 2 of this Convention, which it considers as having outstanding universal value in terms of such criteria as it shall have established. An updated list shall be distributed at least every two years.

3 The inclusion of a property in the World Heritage List requires the consent of the state concerned ...

...

IV Fund for the protection of the world cultural and natural heritage

Article 15

1 A Fund for the Protection of the World Cultural and Natural Heritage of Outstanding Universal Value, called 'the World Heritage Fund', is hereby established.

2 The Fund shall constitute a trust fund, in conformity with the provisions of the Financial Regulations of the United Nations Educational, Scientific and Cultural Organisation.

- 3 The resources of the Fund shall consist of:
- (a) compulsory and voluntary contributions made by the States Parties to this Convention;
 - (b) contributions, gifts or bequests;
 - (c) any interest due on the resources of the Fund;
 - (d) funds raised by collections and receipts from events organised for the benefit of the Fund; and
 - (e) all other resources authorised by the Fund's regulations, as drawn up by the World Heritage Committee.

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA⁴⁶

The Contracting States,

Recognising that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come;

Conscious of the ever-growing value of wild fauna and flora from aesthetic, scientific, cultural, recreational and economic points of view;

Recognising that peoples and states are and should be the best protectors of their own wild fauna and flora;

Recognising, in addition, that international co-operation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade;

Convinced of the urgency of taking appropriate measures to this end;

Have agreed as follows:

Article I Definitions

For the purpose of the present Convention, unless the context otherwise requires:

- (a) 'Species' means any species, subspecies, or geographically separate population thereof;
- (b) 'Specimen' means:
 - (i) any animal or plant, whether alive or dead;
 - (ii) in the case of an animal: for species included in Appendices I and II, any readily recognisable part or derivative thereof; and for species included in Appendix III, any readily recognisable part or derivative thereof specified in Appendix III in relation to the species; and
 - (iii) in the case of a plant: for species included in Appendix I, any readily recognisable part or derivative thereof; and for species included in Appendices II and III, any readily recognisable part or derivative thereof specified in Appendices II and III in relation to the species;

⁴⁶ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) done at Washington, 3 March 1973. Entered into force 1 July 1975, 993 UNTS 243 – reprinted in (1973) 12 *ILM* 1085.