

# Section 2 : Conservation and Management of Resources for Development

## Chapter 9 : Protection of the Atmosphere

### Background

Existing international agreements for the protection of the atmosphere include:

- Vienna Convention for the Protection of the Ozone Layer 1985
- Montreal Protocol on Substances that Deplete the Ozone Layer 1987 (amended 1990)
- Framework Convention on Climate Change 1992

### A. Addressing the uncertainties

There is a need for more scientific, economic and social information about the causes and likely effects of climate change, ozone depletion and air pollution.

### Activities

Governments, in cooperation with other relevant organisations should:

- promote research into the nature of the atmosphere and the links between sustainable development and atmospheric changes
- improve data collection scientific study and prediction of the effects of atmospheric changes
- cooperate to identify threshold levels of greenhouse gases and atmospheric pollutants which would dangerously affect the climate and the environment.

### B. Promoting sustainable development

#### B(i) Energy development, efficiency and consumption

Energy use is essential to development. To achieve development while protecting the atmosphere, emphasis needs to be placed on energy efficiency and on new and renewable sources of energy. Existing constraints to increasing environmentally sound energy supplies need to be removed.

### Activities

Governments, in cooperation with other relevant organisations, should:

- develop, or promote, a national framework for making integrated energy, environmental and economic policy decisions
- co-ordinate energy plans regionally and subregionally
- promote research into environmentally sound energy systems and energy saving technologies
- promote energy efficiency standards and air quality standards

- encourage education and awareness-raising programmes, including environmental labelling programmes.

### **B(ii) Transportation**

Sustainable transportation is covered in programme E of chapter 7.

### **B(iii) Industrial development**

Industrial development is essential to economic growth. Much of the impact of industry on the environment could be avoided or remedied.

#### **Objectives**

To reduce the impacts of industry on the atmosphere by:

- increasing efficiency and minimising waste
- using pollution abatement technologies
- replacing ozone depleting substances (including CFC's) with appropriate substitutes.

#### **Activities**

Governments, in cooperation with other relevant organisations should:

- establish policies to minimise pollution
- encourage the development of less polluting technologies
- promote the efficient use of materials and resources, including the use of renewable sources of energy.

### **B(iv) Resource development and land use**

Land use decisions (for example, converting land from indigenous forest to farming use) have a significant impact on the atmosphere. Atmospheric changes can, in turn, have important impacts on land use and on freshwater and marine environments.

#### **Objectives**

To use land and sea resources in ways which minimise atmospheric pollution, including greenhouse gas emissions.

To plan for the ecological and socio-economic effects of atmospheric changes.

#### **Activities**

Governments, in cooperation with other relevant organisations should:

- promote sustainable use of land and sea resources
- conserve and enhance greenhouse gas "sinks" such as forests
- consider the likely effects of atmospheric pollution and climate change in land use planning and policy development.

## **C. Preventing stratospheric ozone depletion**

CFCs, halons and other man-made gases are seriously depleting the ozone layer. Despite international agreements, including the Montreal Protocol, the total amount of reactive chlorine and bromine in the stratosphere continues to rise.

### **Objectives**

Reduce the emission of ozone-depleting substances to the atmosphere, within the framework of the Montreal Protocol.

Aim to mitigate the adverse effects of increased ultraviolet radiation reaching the Earth's surface as a result of ozone layer depletion.

### **Activities**

Governments, in cooperation with other relevant organisations should:

- ratify, and implement the Montreal Protocol
- collect and exchange information on the effects of ozone layer depletion, including health, environmental and economic effects
- consider actions to remedy the effects of increased ultraviolet radiation on human health, agriculture and marine environment
- replace CFC's with appropriate alternatives.

### **D. Transboundary atmospheric pollution**

This is not summarised as this is of little relevance in New Zealand.