GLOBAL WARMING

Global warming is a rise in the temperatures of the earth because greenhouse gases trap heat and light from the sun in the atmosphere. The consequences of global warming are changes in weather patterns, sea levels and other natural cycles. The term 'greenhouse effect' was first used in the early 1880s to describe the naturally occurring functions of gases in the atmosphere. It was not until the mid-1950s, however, that it was associated to the idea of climate change. The greenhouse effect is a natural phenomenon whereby carbon dioxide acts like the glass in a greenhouse, trapping heat from the sun and keeping the Earth warm. Greenhouse gases keep the temperature on Earth within a range that suits humans, plants, and animal life. Without these gases, the Earth's average temperature would be too cold for people to survive. However, if additional greenhouse gases are generated, this leads to a gradual increase in temperature on the Earth's surface.

Scientists have tried to explain this phenomenon, which is a consequence of air pollution and the effect of greenhouse gases emitted by humans. This is such an important issue that the **UN** formed a group of scientists called the *Intergovernmental Panel on Climate Change* (IPCC) that meets and writes reports on it. What has been discovered is that human beings emit pollutants in various ways, e.g. in the combustion of fossil fuels and in the production of electricity. Simple everyday actions, like driving a car, using air conditioners and other household appliances, cause more greenhouse gases to be sent into the air. Hairsprays and other products let out too many ozone-destroying chemicals (like CFCs, chlorofluorocarbons) and related chemicals such as CO_2, the gas responsible for most of the warming. Other contributors include methane released from landfills and agriculture, nitrous oxide from fertilizers, gases used for refrigeration and industrial processes, and the loss of forests that would otherwise store carbon dioxide.

What are people doing to stop this? Governments have passed laws, like the **Clean Air Act**, and sought to regulate the release of air pollutants. Companies and factories are made to change their products and comply with specific requirements, i.e. emission standards that set limits to the amount of pollutants that can be released into the environment.

Chlorofluorocarbons have been banned in much of the world because they degrade the ozone layer and are reported to have a heat-trapping potential thousands of times higher than CO_2. Car production is also changing in order to satisfy these regulations. People are becoming more careful with electrical appliances, waste production and recycling. More environmentally-friendly habits, such as using public transport, riding bikes and **carpooling**, are also spreading.

UN stands for United Nations, an international organization established after World War II. Among its purposes are the maintenance of international peace, the development of friendly relations among states, and the cooperation in solving international, social, economic, and humanitarian problems. Today 191 nations are UN members.
The **Clean Air Act** is a series of acts passed by governments in countries like the UK, Canada, New Zealand and the USA in order to enforce clean air standards.
Carpooling, or car-sharing, is the sharing of a car journey so that more people travel in a car. It helps people save money but it is especially seen as a sustainable way to travel as it reduces carbon emissions.

READING COMPREHENSION

ACTIVITIES

- *Answer the following questions.*

1. What is the original meaning of 'greenhouse effect'?
2. What is the function of greenhouse gases?
3. What happens when greenhouse gases increase?
4. How do humans emit pollutants into the air?
5. What is the origin of CFCs?
6. How is carbon dioxide produced?

WRITING

- *Fill in the table with information from the text.*

GAS	ORIGIN	REGULATION
Carbon dioxide		
Chlorofluorocarbons		
Methane		
Nitrous oxide		