

Climate change or global warming means a gradual increase in the global average air temperature at the Earth's surface. The majority of scientists now believe that global warming is taking place, at a rate of around 0.3°C per decade, and that it is caused by increases in the concentration of so-called 'Greenhouse Gases' in the atmosphere. The most important single component of these greenhouse gas emissions is carbon dioxide (CO²). The major sources of emissions of CO² are power plants, automobiles and industry. Combustion of fossil fuels contributes around 80% to total world-wide anthropogenic CO² emissions. Click on the links on the left to find out more about global warming and climate change.

How does Global Warming work?

The earth's atmosphere is made up of several gases, which act as a 'greenhouse', trapping the sun's rays as they are reflected from the earth's surface. Without this mechanism, the earth would be too cold to sustain life as we know it. Since the industrial revolution, humans have been adding huge quantities of greenhouse gases, especially carbon dioxide (CO²) to the atmosphere. More greenhouse gases means that more heat is trapped, which causes global warming. Burning coal, oil and natural gas increases atmospheric concentrations of these gases. Over the past century, increases in industry, transportation, and electricity production have increased gas concentrations in the atmosphere faster than natural processes can remove them leading to human-caused warming of the globe.

The Evidence

Recently, alarming events that are consistent with scientific predictions about the effects of climate change have become more and more commonplace. The global average temperature has increased by about 0.5°C and sea level has risen by about 30 centimetres in the past century. 1998 was the hottest year since accurate records began in the 1840s, and ten of the hottest years have occurred during the last 15 years.

Official confirmation of global climate change came in 1995, when the UN Intergovernmental Panel on Climate Change (IPCC), an officially appointed international panel of over 2,500 of the world's leading scientific experts found that, 'the balance of the evidence suggests a human influence on the global climate.' It has been concluded that the temperature on this planet during this century has steadily risen with the higher concentration of carbon dioxide, at a rate in accordance with theoretical prediction and that this is an effect which would continue to raise the temperature for another 75 years even if carbon dioxide emission was stopped today.

The following are events which consistent with scientists' predictions are the effects of global warming. The past two decades have witnessed a stream of new heat and precipitation records. Glaciers are melting around the world. There has been a 50% reduction in glacier ice in the European Alps since 1900. Alaska's Columbia Glacier has retreated more than 12 kilometres in the last 16 years while temperatures there have increased. A huge section of an Antarctic ice shelf broke off. Some scientists think this may be the beginning of the end for the Larsen B ice shelf, which is about the size of Connecticut. Severe floods like the devastating Midwestern floods of 1993 and 1997 are becoming more common. Infectious diseases are moving into new areas. Corresponding with global warming, sea levels have risen, and climatic zones are

shifting. All these changes exemplify the environmental impact of global climate change. Global warming and climate change pose a serious threat to the survival of many species and to the well-being of people around the world. eye on this page as it is updated regularly with new developments...