

Coming to terms with climate change

Earth's climate is not static, and change is a natural phenomenon.

In the last 200 years, however, the activities of the industrialised world have impacted on the speed at which these changes occur.

A combination of deforestation and the burning of fossil fuels has meant carbon dioxide (CO₂) and other gases have built up in the atmosphere. These are called greenhouse gases because they trap heat in, much like glass in a greenhouse. The result of the greenhouse effect is a rise in the temperature of the atmosphere near the earth's surface, otherwise known as global warming. Because the impacts of the greenhouse effect go beyond temperature, the term climate change is used to describe the phenomenon.

Climate change includes changes in rainfall patterns, shifts in sea level, changes in weather patterns and a reduction in the size and density of polar ice caps. The effects these changes will have on humans, plants and animal species is unknown and widely debated. According to South Africa's Centre for Scientific and Industrial Research (CSIR), South Africa may experience a reduction in rainfall in the western half of the country and an increase in the eastern half. The drier western half may see a decrease in agricultural productivity. The wetter eastern half might face an increase in the occurrence of climate related disease such as malaria and cholera.

The South African government's Department of Environmental Affairs and Tourism is in the process of drafting a framework for a national sustainable development strategy. There is also the Long Term Mitigation Scenario (LTMS) process, a multi-stakeholder (government, private enterprise and civil society) forum charged with developing scientifically modelled scenarios to inform South Africa's mitigation road map. The goal will be to commit to reducing the emission of greenhouse gases and the adoption of more responsible uses of natural resources in order to slow down climate change.