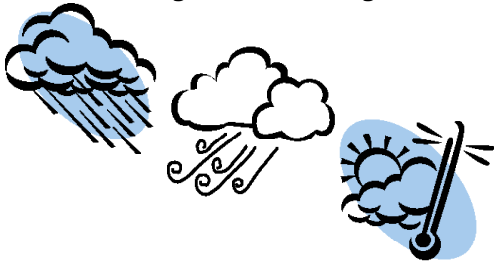


Climate change is the change of climate on Earth over a longer period of time.



Climate is commonly defined as the weather average over a long period of time and includes temperature, rainfall, wind and other variables.

Namibia's climate is described as: arid desert to sub-humid, hot, dry, rainfall sparse and highly variable

Climate change has occurred naturally during Earth's history. However, in recent years scientists have discovered an unusual change in the climate, which is called "Global Warming".

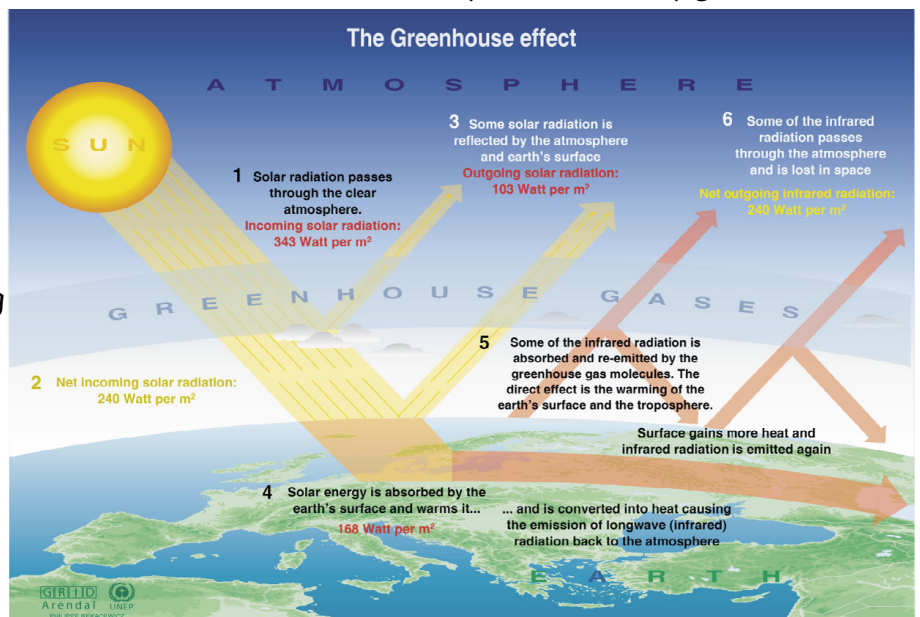
Global warming refers to a rapid increase in the Earth's temperature over the past 50 years.

Although some processes that cause climate change are natural, 75% of global warming is now believed to be due to human activities over the past 200 years. This coincides with the Industrial Age, when people started burning vast amounts of coal and oil for transport, electricity generation, industrial processes and many more "modern" activities.

The largest contributor to global warming is the dramatic increase and release of greenhouse gasses into the Earth's atmosphere. These gases prevent heat from Earth to escape into space. The result is rising temperatures.

Key greenhouse gases are carbon dioxide, methane and water vapour, ozone, chlorofluorocarbons and nitrous oxides amongst others.

The atmospheric concentrations of carbon dioxide and methane have increased by 31% and 149% respectively since 1750. This is considerably higher than at any time during the last 650,000 years for which scientists can collect reliable data.

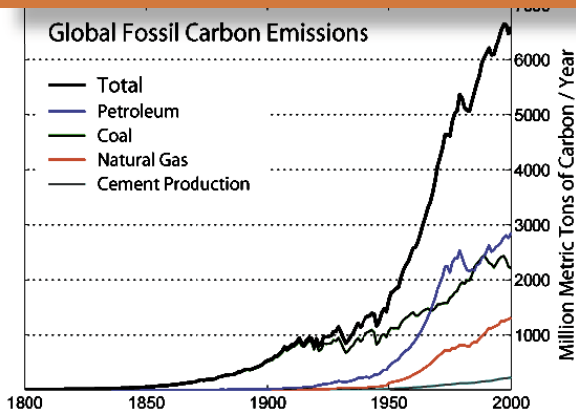
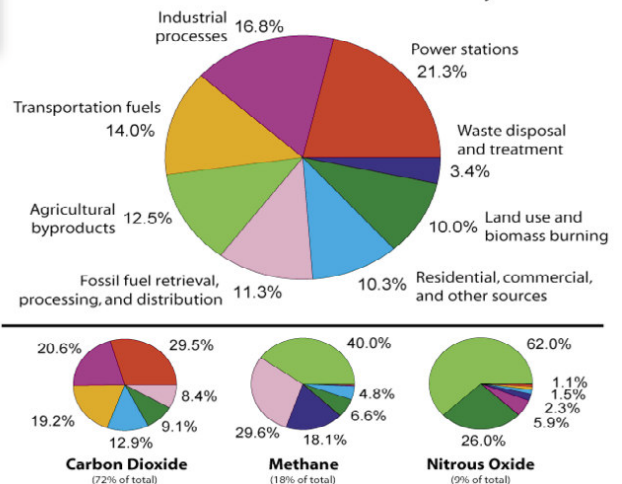


The **greenhouse effect** is the process in which the emission of infrared radiation by an atmosphere warms a planet's surface. Greenhouse gases ensure that this radiation is not lost immediately to space, but are trapped to warm the Earth.

Global warming is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades and its projected continuation. This increase is caused by greenhouse gases. This is where these gases come from:



Annual Greenhouse Gas Emissions by Sector



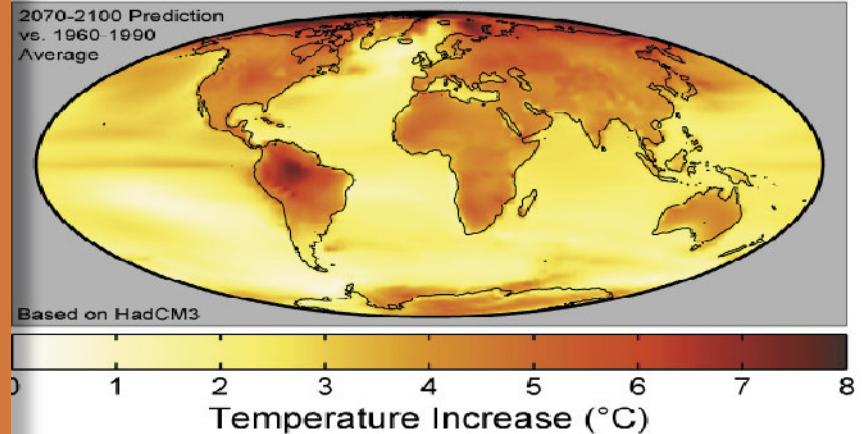
It is difficult to determine the exact impact that global warming will have on plants, animals and people. However it is very certain that if the temperature on Earth rises it will have several effects on the safety, health, economy and environment.

Models predicting how global warming will change local climate forecast that in Namibia the mean temperature can increase by between 3 °C and 5 °C.

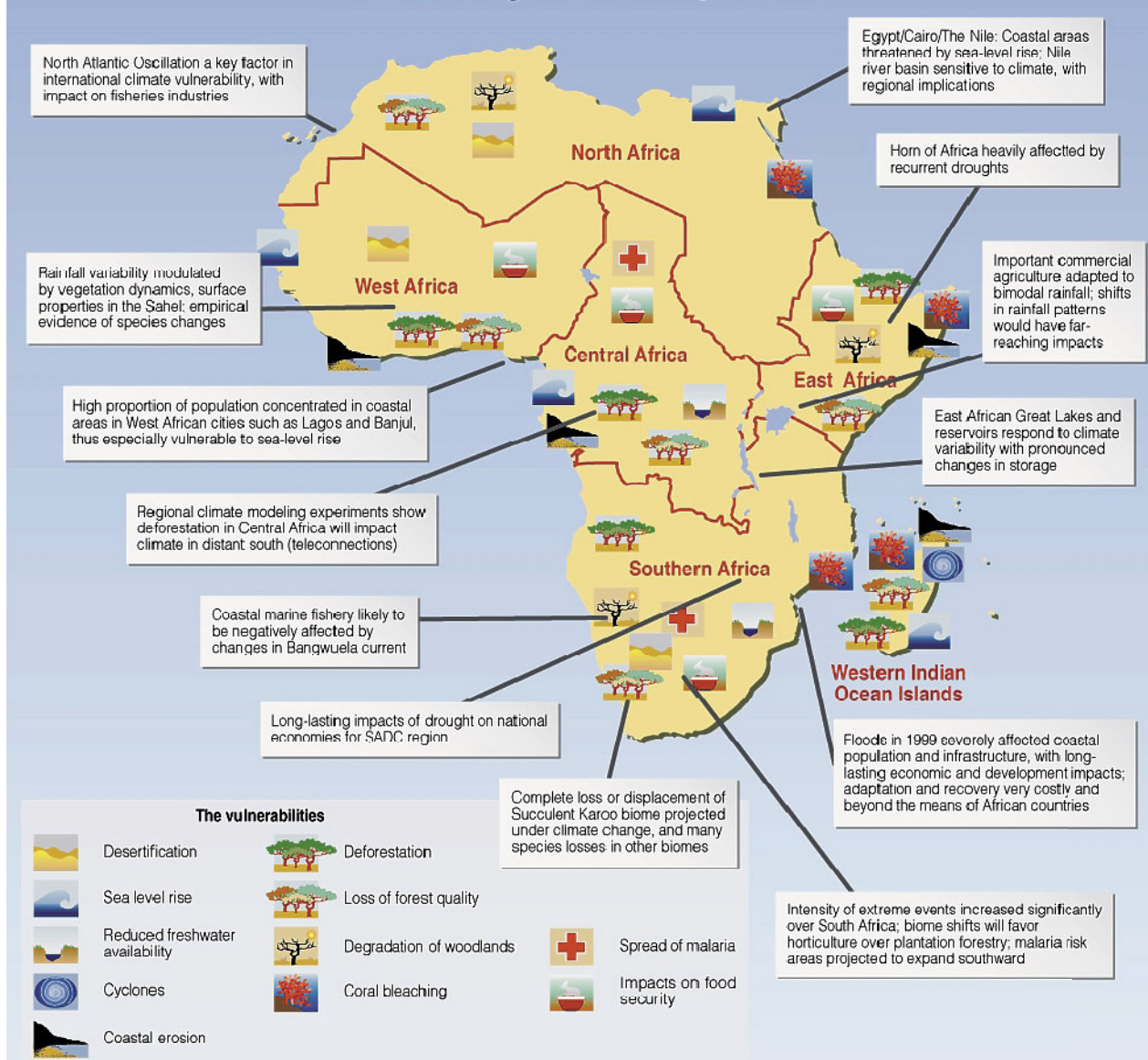
A substantial increase in temperature is expected to lead to higher evaporation rates, increased windiness, a change in the rainfall pattern, and people having to adapt to more variable weather conditions.

The graph below, produced by the United Nations Environment Programme shows how vulnerable Africa is to climate change.

Global Warming Predictions



Climate Change Vulnerability in Africa



Additional Information

<http://www.ipccfacts.org>
<http://www.physicalgeography.net/fundamentals>
<http://www.ge-at.iastate.edu>
http://en.wikipedia.org/wiki/Greenhouse_effect

www.drfn.org.na
 Tel: +264 61 377500
 Fax: +264 61 230172

