

Climate change made simple

Three terms to be familiar with in order to understand what all the fuss is about.

'Climate' refers to the long term pattern of weather that characterises a region.

'Climate variation' is a naturally occurring phenomenon whereby a region's climate will gradually change over time.

'Climate change' refers to the changes in climate that result from an alteration of the earth's atmospheric composition through human activity such as burning fossil fuels and land clearing.

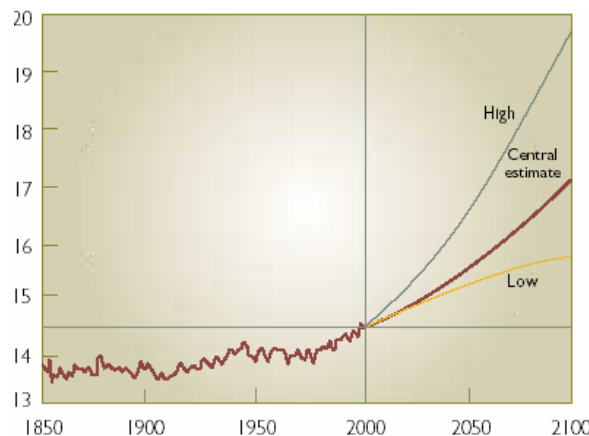


Figure 1: Average global temperatures from 1850 projected through to 2100. (IPCC 2001)

Preparing for climate change

Climate change impacts will be gradual and widespread. It is essential that individuals and governments at all levels prepare for the impacts of climate change through the development and implementation of proactive strategies that assist with the mitigation of and adaptation to climate change.

The impacts of climate change on human health

Changes in climate alter physical and ecological systems that sustain life on earth. The projected changes in climate that will impact human health are many and varied.

Direct impacts on human health

Heat related illness

Prolonged exposure to elevated ambient heat can cause cramps, heat exhaustion, heart attack and stroke. The elderly, the young and those with cardiovascular disease are the most vulnerable. Some studies predict the number of heat related deaths to increase by as much as 149% as a result of climate change.

Extreme events

Increasing population growth combined with climate change will mean the impacts to human health (injury or death) caused by extreme events are likely to increase.

Indirect impacts on human health

Arboviruses

Arboviruses are viruses transmitted by insects. Warmer weather conditions are known to promote the survival, and breeding of insects such as mosquitoes. It is expected that the potential for insect borne illness will increase in Australia under future climate change

Respiratory diseases

The concentration of air borne pollutants (such as pollen, bushfire smoke and fossil fuel pollutants) may increase under future climate change. Also, photochemical smog formation is favoured in warmer conditions. As a result, respiratory diseases such as asthma, may become more prevalent.

Contaminated waterways

Australia's coastal waters are occasionally contaminated with untreated sewage, mostly after heavy rainfall events. In the future, catchment waters may be more frequently contaminated. This poses a potential health risk to drinking water supplies and waterways used for recreational activities.

There are numerous actions you can take to mitigate and adapt to the health impacts of climate change. These include:

- Minimise physical exertion & stay indoors on extremely hot days.
- Use energy efficient air conditioners.
- Respond early to extreme rainfall events, and prepare property to minimise damage.
- Limit exposure to mosquito vectors – remove mosquito breeding sites on your property (for example, stagnant pools of water).

But remember, actions that reduce greenhouse gas emissions are crucial.

It's all about you

Did you know?

The average surface global temperature over the last century has increased by approximately 0.7 °C. In Australia on average this figure is slightly higher at almost 0.8 °C

What does this mean for you?

Climate change is predicted to continue and models of the Sydney region project an additional average temperature increase of as much as 0.2°C per decade. This will be combined with a likely decrease in overall rainfall.

The impacts of these changes are expected to include a sea level rise of between 9-88cm by 2100, which will mean increased coastal flooding and inundation. Other expected impacts include increased frequency of bushfires and coastal storms.

What can you do?

There are many ways in which we can limit the long term effects of climate change, these include:

- Using energy efficient appliances.
- Employing energy smart building design
- Using green energy.
- Reducing our dependencies on fossil fuelled vehicles by car pooling, cycling or using public transport.

Talking to your family and friends about the potential impacts of climate change on their health and lifestyle is a really easy way to get them to mitigate and adapt to the impacts of climate change on their lives.

Further Information

Australian Greenhouse Office

www.greenhouse.gov.au

Bureau of Meteorology

www.bom.gov.au

CSIRO Marine and Atmospheric Research

www.cmar.csiro.au

Intergovernmental Panel for Climate Change

www.ipcc.ch

NSW Greenhouse office

<http://www.greenhouse.nsw.gov.au/>

Sydney Coastal Councils Group

www.sydneycoastalcouncils.com.au

This fact sheet has been developed as part of the Sydney Coastal Councils Group / Macquarie University Partnership Program for SCCG Member Councils



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Climate Change and Sydney's Coast
Fact Sheet: Human Health

