Why should we adapt to climate change?

1 Because climate change is inevitable.

Our options to tackle climate change:

> Geoengineering

Large-scale projects to change the radiation balance (e.g. using solar reflectors in space) or to increase uptake of CO_2 (e.g. by ocean iron fertilisation)

But

The technology is unproved and may not work

It may have unexpected results

It doesn't address the cause

It could be expensive

It does not address the direct effects of CO_2, such as ocean acidification

> Mitigation

Reducing our production of greenhouse gases to limit climate change (e.g. by shifting to renewable energies, or through reforestation)

But

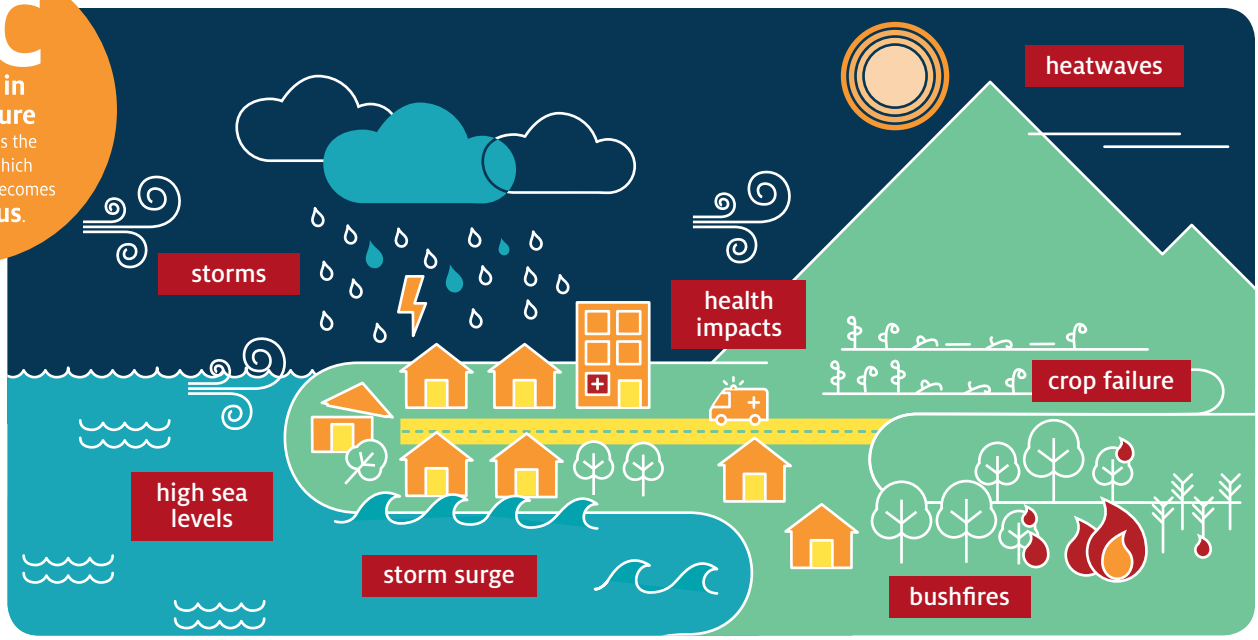
Despite ongoing global efforts – changes in climate are already happening

An increase in global temperature of **2.7°C** **is still predicted** given current emissions reduction commitments.

2 Because otherwise, the negative impacts will be too great.

Sea-level rise **Extreme weather events**

2°C **increase in temperature** is recognised as the threshold at which climate change becomes **dangerous**.



Along Australia's coast, the effects will include inundation because of sea-level rise, storm surge and flooding from rivers. About 85% of Australians live within 50 km of the coast, where much of our vital infrastructure is located.

3 > Adaptation is essential.

Actions to limit the negative impacts of climate change and take advantage of any positive opportunities

Although many places and sectors will experience negative effects of climate change, at least in the early decades, climate change may, in some places, have a beneficial effect.

For example, warmer temperatures may increase crop productivity in cooler regions of Australia, and there may also be business opportunities. Adaptation is also about taking advantage of these positive effects. Towards the end of the 21st century, it is likely that the impacts will be negative almost everywhere.

Coastal climate change infographic series
www.coastadapt.com.au

Australian Government
Department of the Environment and Energy

CoastAdapt

NCCARF
National Climate Change Adaptation Research Facility