CLIMATE CHANGE

TASMANIAN CLIMATE CHANGE OFFICE

FACT SHEET

Climate change is a change in global climate patterns over many decades that has been caused by increasing levels of greenhouse gas emissions, primarily from the burning of fossil fuels like coal.

Climate change is a serious and complex issue, which presents challenges and opportunities for Tasmania.

WHAT ARE GREENHOUSE GASES (EMISSIONS)?

Greenhouse gases trap heat in the atmosphere and make the Earth warmer.

Those with the most significant impact on global warming are water vapour, carbon dioxide, methane and nitrous oxide. Other common greenhouse gases include ozone and chlorofluorocarbons.

Greenhouse gases are measured in tonnes (T) and mega-tonnes (a million metric tonnes) of carbon dioxide equivalent (Mt CO₂-e) that groups all greenhouse gases together into a single measurement, based on how much global warming they may cause.

WHAT ARE CARBON SINKS?

A carbon or emissions sink is a carbon storage reservoir, like a forest, which absorbs more carbon than it releases.

WHAT'S THE DIFFERENCE BETWEEN CLIMATE AND WEATHER?

Weather is measured over a short period of time, like your weekly forecast or monthly outlook, and climate tells us about atmospheric conditions over relatively long periods of time.

WHERE DOES OUR INFORMATION COME FROM?

There is a range of scientific information available about the projected impacts of climate change at the local, national and international levels.

The three main sources of information for Tasmania are:

- The Climate Futures for Tasmania Project¹
- The CSIRO / Bureau of Meteorology²
- The Intergovernmental Panel on Climate Change (IPCC)³



www.climatefutures.org.au/

² www.climatechangeinaustralia.gov.au/en/

³ www.ipcc.ch/

WHAT ARE THE PROJECTED CLIMATE CHANGE IMPACTS FOR TASMANIA?



A SIGNIFICANT
CHANGE IN
RAINFALL
PATTERNS
FROM SEASON TO
SEASON AND VARYING
BETWEEN DIFFERENT
REGIONS

A RISE
IN ANNUAL AVERAGE
TEMPERATURES
BY UP TO
2.9°C
BY 2100

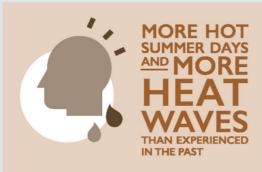




FIRE SEASONS AND MORE DAYS ATTHE HIGHEST RANGE OF FIRE DANGER



CLIMATE CHANGE PROJECTIONS AND IMPACTS FOR TASMANIA







AN INCREASE

IN OCEAN

ACIDIFICATION

LEVELS AND

EAST COAST WATER

TEMPERATURE

2°C 3°C

BY 2070, RELATIVE
TO 1990 LEVELS

SEA LEVEL RISE OF BETWEEN 0.39 AND 0.89m

BY 2090, ALTHOUGH UNDER CERTAIN CIRCUMSTANCES SEA LEVEL RISES HIGHER THAN THESE MAY OCCUR



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