

### Science of Climate Change

BOM - State of the Climate 2018

IAG - Severe weather in a changing climate

Intergovernmental Panel on Climate Change

Paris Agreement on Climate Change



Changes already happening and requiring adaptation

Bureau of Meteorology



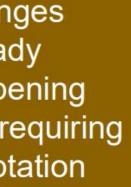
# Science of Climate Change

NASA found that 2019 was second hottest yr on record after 2016 and the decade 2010-2019 was the **hottest** decade ever **recorded** 

In 2013 the BOM added a new temperature scale up to 54°C

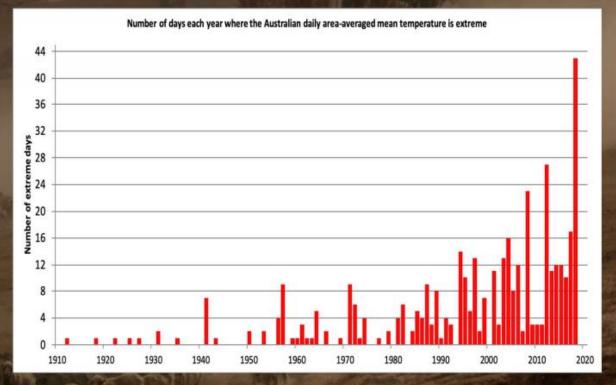
More people die of heatwave than any other natural disaster in Australia.

Changes already happening and requiring adaptation





### Increasing Extreme heat



Frequency count of the national daily temperature (continental average) reaching the 99th percentile (relative to the month) each year



# Science of Climate Change

2019/2020 bushfire were fueled by climate change as temperature records have been broken over and over and cool season rainfall has declined in southeast Australia over the last two to three decades.

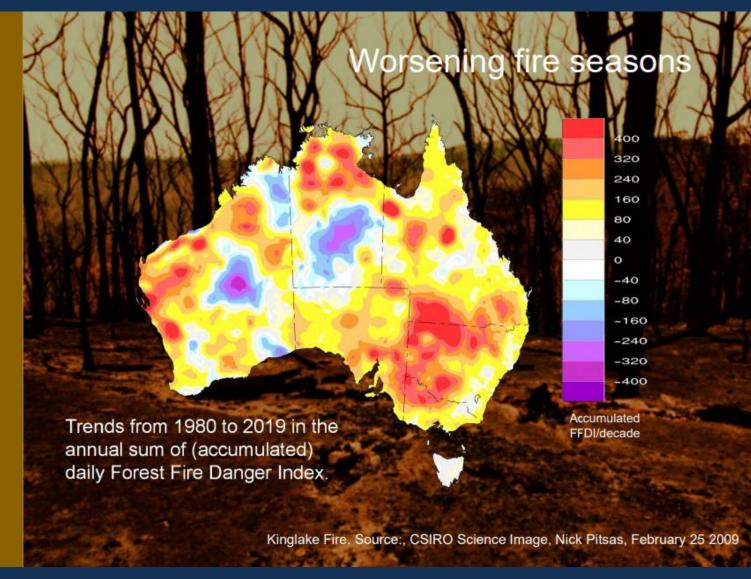
Nearly 80 percent of Australians were affected either directly or indirectly by the bushfires.

Burnt almost 19 million hectares, destroyed over 3,000 houses, and killed 33 people

Smoke attributed to 471 additional deaths and thousands hospitalized



Changes already happening and requiring adaptation





# Climate Change is a social justice issue

- † Climate change is not only a threat to our environment, it threatens people's homes, livelihoods, health, quality of life, employment and increases risks and burdens for future generations.
- † Climate change and a slow, poorly managed transition is a major threat to achieving our vision to eliminate poverty and inequality
- † Climate change hits people living on low-incomes or experiencing disadvantage first and hardest.
- † They have the fewest protections from climate change impacts and live in the most affected places.
- † People on low incomes or exercising disadvantage have less money, choice, power and social connections to cope, adapt or recover.





# People most vulnerable to Climate Change

- † People most at risk include: people on low income, unemployed, frail older people, Aboriginal and Torres Strait Islander peoples, single parents, newly arrived migrants and refugees, people with disability, people experiencing homelessness, women and children at risk of family violence.
- † Underlying factors that increase risk:
  - † Income level
  - † Access to appropriate and affordable housing
  - † How ownership, with renting increasing risk
  - Access to culturally and linguistically appropriate information
  - † Health and access to health care
  - † Connectedness to people and community
  - † Access to transport and mobility





# Climate Change can deepen and increase poverty

- † People experiencing poverty or disadvantage before a natural disaster are often left worse off after the event.

  Natural disasters can not only entrench poverty but can drive people into poverty.
- Lack of insurance, under-insurance and the rejection of insurance claims, leave people unable to live in or to repair their homes;
- † Loss of employment through disruptions to and closures of local businesses;
- toss of rental tenancies and inability to meet higher bond payments and rents;
- † Increased pressure on public housing waiting lists;
- † Increased living costs due to the rise in the costs of food and other essential services also affected by the natural disaster.
- † Mental health issues- trauma can take years to recover from and some may not recover fully.



# Climate Change increase refugees/migration

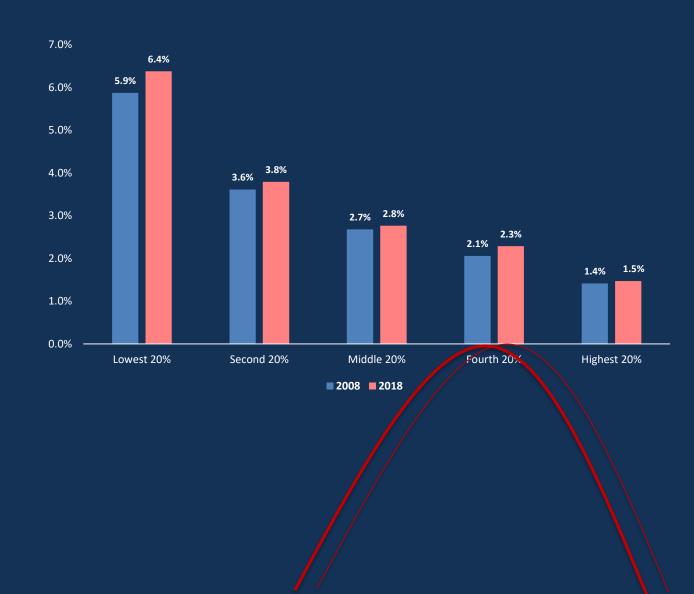
- † A 2018 World Bank report predicted that 143 million people from South Asia, Latin America and Sub-Saharan Africa could be forced to migrate due to climate conditions by 2050.
- the UN Human Rights Committee this year has found it is unlawful for governments to send people back to countries where climate change impacts expose people to lifethreatening risks or cruel, inhuman or degrading treatment.
- † The Pacific includes the smallest and lowest lying nations in the world. These nations have a high population density, which means they are extremely vulnerable to sea level rise, more intense cyclones, rising heat.
- Many Pacific nations are already feeling the effects of sea-level rise. It impacts on food, water, land, infrastructure, increase disease.





# Climate Change and transition

- † The lowest-income spend 6.4% of income on energy, highest-income spend 1.5%.
- † One in four pay over 8.8% of income on energy, up from 7.6% in 2008.
- † People on Newstart and Youth Allowance, sole parents, lone pensioners and renters are most vulnerable.
- † Impacts: Deprivation or debt, Poor health, Less spending on other essentials, Social isolation, Homelessness
- † People on low income less likely to have access to energy efficiency and energy productivity measures. Risk left behind in the transition.





# Targeted and fair policies

#### **Reduce emissions**

- Australia must act to limit global warming to 1.5 degrees.
- Reducing our net domestic emissions to zero before
   2050 and by at least 45% on 2005 levels by 2030
- Support developing countries reduce emissions

### **Build resilience**

- Provide equitable incomes to improve people's quality of life
- Ensure people live in affordable, quality homes
- Provide affordable, sustainable transport options
- Protect people's wellbeing and promote their resilience
- Engage and resource community organisations

#### Leave no-one behind in the transition

- Energy Efficiency for new and existing homes, targeting low-income homes and renters.
- DER subsidies and rebates should be targeted to support people on low-incomes, including social housing

#### **Transition fair and equitable**

- Costs of the transition should be spread equitably within the community, protect the most vulnerable and assist workers & communities in transition
- Subsidies should come off energy bills to more progressive costs sharing like government budget



