

# Sustainability summit | pre-reading materials

21 November 2019



# Sustainability summit

## Objectives

- Learn from academic experts
- Explore what we can do in practice
- Develop a list of practical, actionable takeaways

# Agenda

Time	Session	Presenter
9:00	Welcome and introductions	Tim Hodgson
9:30	Sustainability beliefs	Roger Urwin
10:30	<i>Break</i>	
11:00	Spotlight topic 1 – climate change	David Karoly
12:30	<i>Lunch</i>	
13:30	Spotlight topic 2 – corporate stewardship in pursuit of the SDGs	Tim Hodgson
15:00	Practitioner panel	Roger Urwin Mary Delahunty, Allison Hill, Liza McDonald
16:00	Closing thoughts	
16:30	<i>Finish</i>	

# Sustainability beliefs

Roger Urwin



## Sustainability in investing: the concept

- Understanding of the material factors that affect long-term value creation
- Aims to generate long-term value in an efficient and balanced approach that is fair to successive generations
- Sees success as achieving a balance of objectives: the maximisation of risk-adjusted financial return and creating positive impact in extra-financial outcomes
- Emphasises governance and stewardship as coping mechanisms

## Sustainability in investing is still evolving



Sustainability is presenting big issues for asset owners in both business model (including fiduciary responsibility) and investment model (including impact)



Improved thinking, and measurement, data and technology is making the management of sustainability more sophisticated but not always more precise



Structural changes in the AO model producing new landscape – DB/DC, de-risking, OCIO model, auto-enrolment, SWFs, insurance funds, and UO model

# Challenges with sustainability in investment

## Emergence and reflexivity

Emergence of the investing pathway and outcomes  
These reflect the interplay of fundamentals and behaviours

- Examples include how climate challenges may produce behavioural responses from universal owners
- The leads and lags in this emergence, including the emergence of externalities
- The system is fundamentally non ergodic in reflecting particular context

## Collective challenges

Opportunities for collaboration and creating multiplier effects  
Challenges of creating alignment

- Examples include agency effects that may complicate collective actions
- Governance is critical to settle differences of view to balance intentions and possible outcomes
- Asset owners have the potential to influence corporations and governments through collaboration

## Levels of uncertainty

Includes radical uncertainty or unknown unknowns  
Impossible to model or measure certain uncertain risks

- Examples include climate technology that is yet to emerge, externalities that become real costs
- Measures where they exist are 'soft' not 'hard' often reflecting scenarios
- The longer the horizon we consider, the softer the issues

## The need for investment beliefs

- Asset owners have to mix a number of distinct strands to build the sustainable strategy that meets their mission
- These multi-strand elements are difficult to integrate into a coherent sustainable strategy
- The conflation of these elements, with their mixed motives and timescales in particular, can often result in cognitive dissonance producing misalignment of mission and strategy
- Dealing with this requires strong governance processes to achieve mission clarity in which beliefs will be a fundamental element.

## Effective belief systems

Beliefs are high level principles and subjective thinking that guide the organisation to certain types of decisions and content

Effective beliefs are aligned (collective), actionable (get embedded in portfolios) and edgy (have depth and carry competitive advantage)

Perfect consensus (one identical shared view) is not possible; a settlement (agreement to work to a shared view) is possible

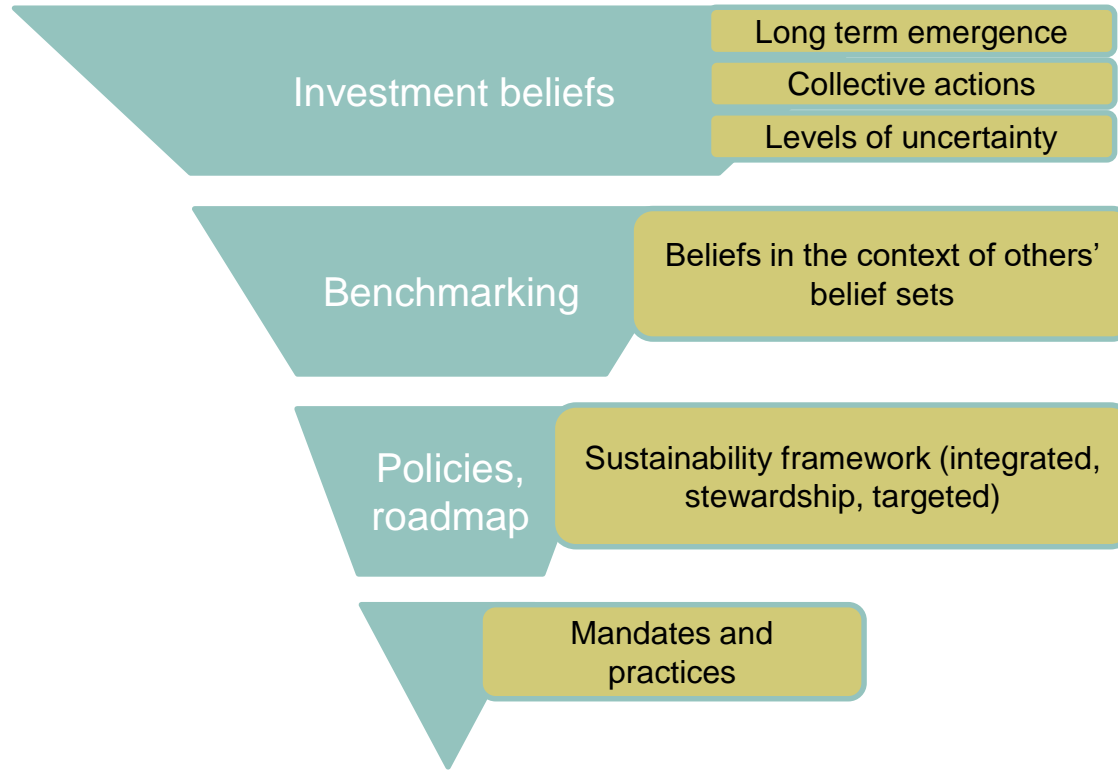
Beliefs include the unique context parameters of the enterprise as much as the investment content

What beliefs cannot do is dictate the decisions and the investment priorities, in these areas critical judgement skills must come in

# Beliefs project methodology and output

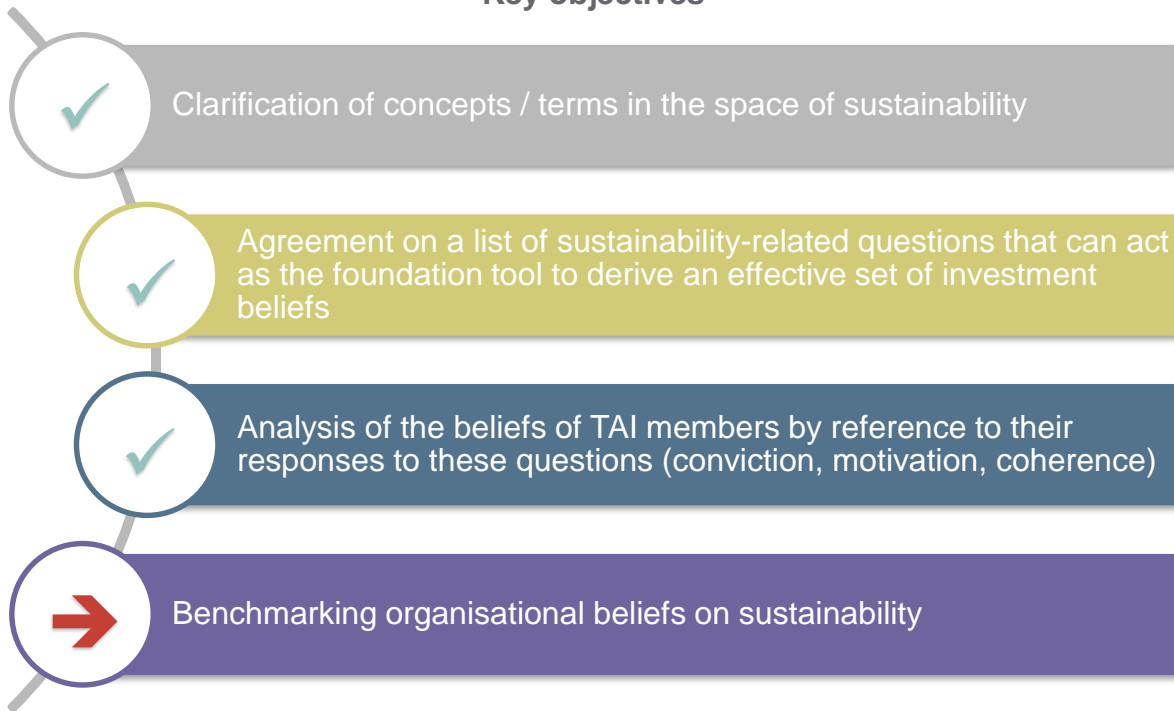


# Approaches to sustainability



# Institute sustainability project on values and beliefs

## Key objectives



## Project summary

### Survey group

- 550 responses
- From 45 organisations
- Asset managers and asset owners

### About the survey:

- 36 questions, of which:
  - 32 are based on Likert scale
  - 4 offer range-based responses

## Six vectors used to frame the results

### Conviction

- Belief in **materiality** of sustainability factors in investment outcomes
- Belief in market **mispricing** of sustainability factors

### Motivation

- Belief in a **financial motive** for integrating sustainability into investing
- Belief in **extra-financial motive** (eg investing for a better future) for sustainable investing

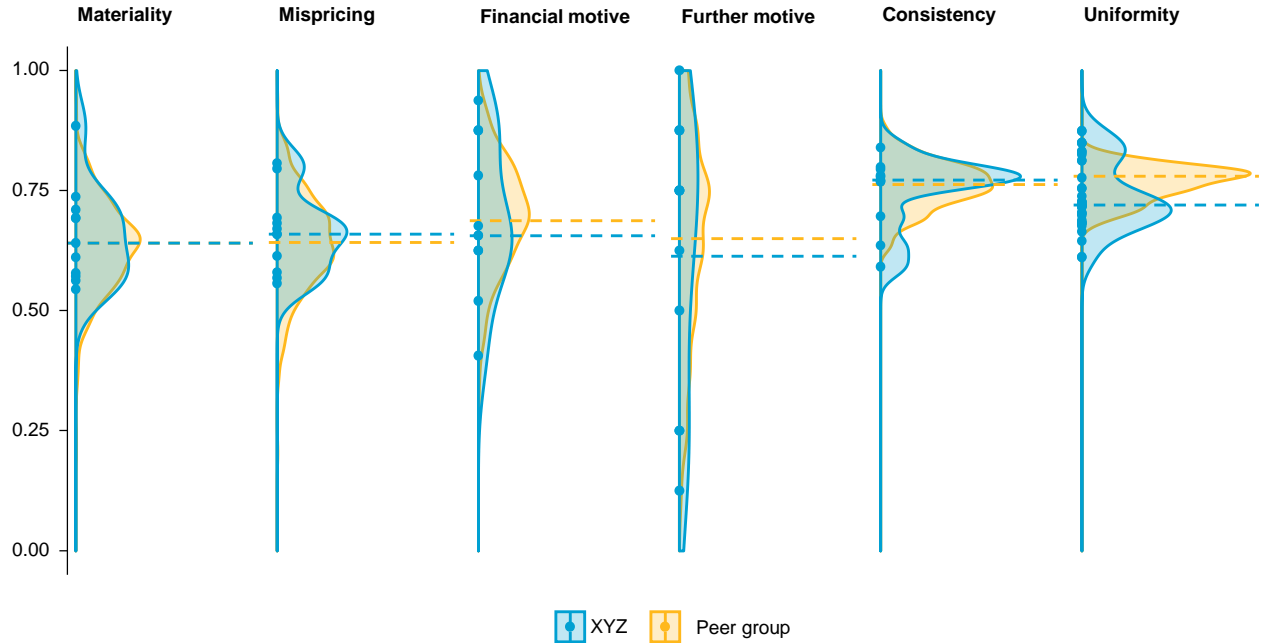
### Coherence

- The degree to which an individual's responses are internally **consistent**
- The extent to which there is **uniformity** among the beliefs of individuals in the group

# Vector charts: comparison to peer group

Sample output

Mean	0.66	0.63	0.66	0.64	0.69	0.70	0.61	0.65	0.75	0.76	0.74	0.77
Median	0.64	0.64	0.66	0.64	0.66	0.69	0.75	0.62	0.77	0.76	0.72	0.78
Std deviat'n	0.10	0.09	0.08	0.10	0.16	0.11	0.29	0.21	0.08	0.05	0.07	0.04



Source: Thinking Ahead Institute, XYZ

# Beliefs project results and takeaways



## Agreement – highest

Statements with which respondents agreed most on average	% agree
14. Sustainability in investing is broader than considering ESG factors, and includes sustainability of the economic and financial system	86%
17. Systematically considering ESG issues will lead to more complete analyses and better-informed investment decisions	85%
19. The execution of ownership rights, including voting and engagement, can positively influence the performance and lower the risk of investments over time	85%
1. Investors are over-sensitive to short-term factors and not sensitive enough to long-term factors. As a result, long-term factors are less efficiently priced	82%
23. Asset owners as part of their overall responsibilities should consider direct and indirect negative impact with respect to the ESG footprint of their investments	81%
5. I am willing to accept a lower return in the shorter term to deliver higher long-term returns	80%

## Agreement – lowest

Statements with which respondents agreed least on average	% agree
22. Asset owners should steer clear of non-financial considerations on the basis that financial factors should represent the only consideration	9%
2. The long term is the same as the aggregation of short terms. As a result investors can be most effective maximising the performance of a series of short-term periods	11%
16. The excess demand of investors for assets with well-managed ESG factors has made these investments higher priced and ultimately lower performing than mainstream	18%
20. The benefits of incorporating ESG principles into the investment process are unlikely to outweigh the cost of doing so	28%

## Beliefs on climate change

Statements from respondents on climate change	
3. The market does not accurately price in ESG externalities	69% agreement
4. ESG externalities can effectively be priced into valuations	49% agreement
30. Over what time frame will climate change create material impacts for society	10 years
31. The financial impact of climate change over the next 20 years will be	Moderate
33. Companies can gain significant competitive advantage through their strategic response to climate change and resource scarcity/degradation	77% agreement
34. There is a case to ignore stranded assets in anticipation of adaptive organisational and market responses	25% agreement

# The mission buckets

- The values for Materiality, Mispricing and Motivations map to these 'buckets'
- This also allows more accurate specification of the middle areas where funds and managers are clustered with different motivations but similar substance

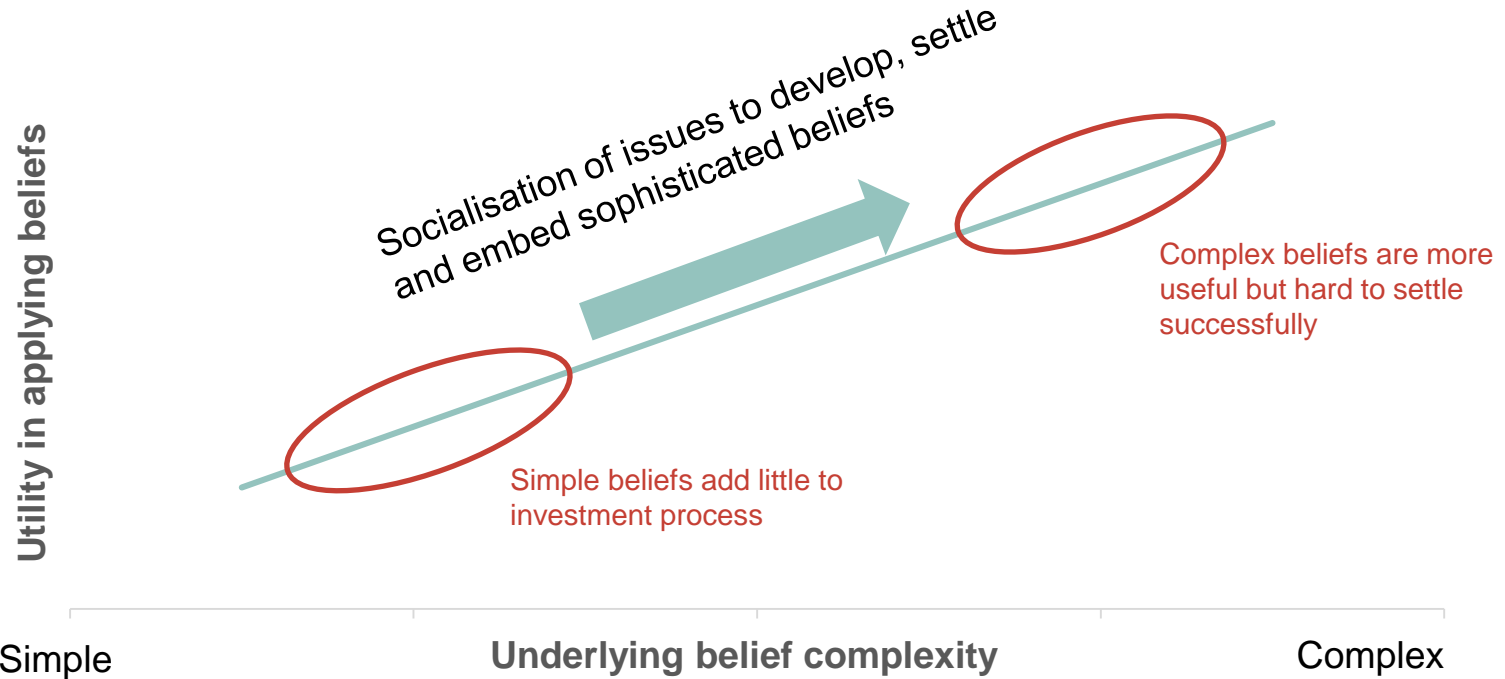
<b>1. Finance-only mission (agnostic to ESG)</b>	<b>2a. Finance-first + Responsible mission - collateral allows for reputational capital</b>	<b>2b. Finance-first + Responsible mission - collateral allows for responsible stance</b>	<b>3. Finance + Impact Blended mission</b>
Mission is solely focused on financial goals	Mission is 'responsible' - includes ensuring license to operate and managing reputational capital  Conviction that likely to produce no significant financial detriment	Mission is 'responsible' - includes having a positive ESG footprint and doing what underlying investors would wish  Conviction that likely to produce no significant financial detriment	Mission is more explicitly concerned with non-financial impacts  Conviction that the financial detriment from including non-financial impacts is limited

## Where are asset owner funds positioned on sustainability?

- Asset owners now count for close to \$100trn on a definition of pensions, SWFs and insurance
- But with limitations in long horizon investing and sustainability and particular problems lie in fiduciary duty, sustainability data and achieving impact

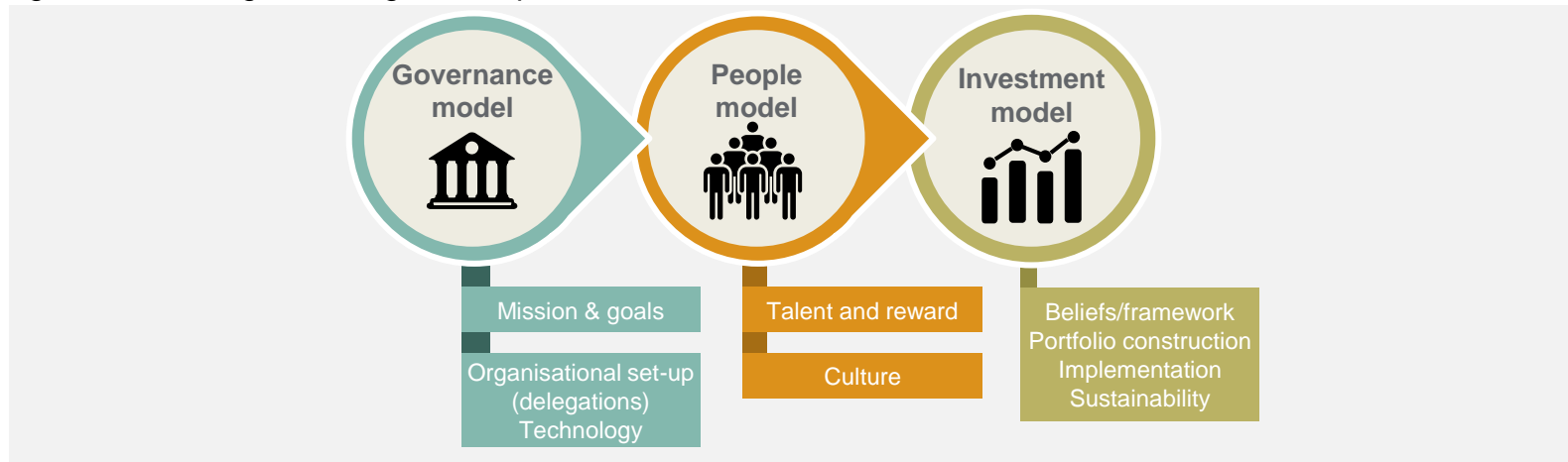
Beliefs on level of <u>materiality</u> and/or <u>mispricing</u> ascribed to sustainability	Targeted sustainability beliefs reflecting mispricing		C <b>T</b>	
	Integrated sustainability beliefs reflecting materiality	A <b>I</b>	B <b>S</b>	
	Traditional beliefs reflecting agnosticism			
<b>T</b>	<b>Tilted/Targeted</b> - includes Integration and Stewardship	<b>Finance-only mission</b>	<b>Finance-first + Responsible mission</b>	<b>Finance + Impact Blended mission</b>
<b>S</b>	<b>Stewardship/Engagement</b> - includes Integration	Beliefs on level of non-financial <u>motivation</u> ascribed to sustainability		
<b>I</b>	<b>Integrated ESG</b>			

# There are trade-offs in beliefs' simplicity and utility



## Beliefs on sustainability extend into governance

- Sustainable success reflects mission clarity, good information, trusted board governance, and a delegated investment team powered by
  - effective culture (inclusive, open, innovative) and
  - effective leadership (purposeful, empowering, focused on comparative advantages)
- Sustainability in investing requires some governance changes
  - tapping wider network of disciplines and specialists
  - stronger capabilities internally and through strategic partners
  - governed through more agile work practices



## Beliefs on sustainability extend into ‘Universal Owners’

- Universal owners are large-scale, long-term, leadership-minded funds that invest in an impact-minded, hyper-integrated way managing externalities
- They are pension funds like GPIF, sovereign funds like Norges, insurers like AXA, asset managers/ OCIO firms like BlackRock
- They have the unique capability to mobilise a global movement to address a global commons set of problems
- *Example: The Governor Newsom State of California Executive Order to create a Climate Investment Framework at CalPERS, CalSTRS and University of California*
- *Example: GPIF. Various actions to manage betas. ‘Can a Pension Fund Change the World’: HBS Cold Call*

### The 4-3-2-1 Pin Code

- 4 for legislatures
- 3 for corporation
- 2 for asset owners (&UO’s)
- 1 for people

Where the units of economic power lie

How the soft power of AOs has particular potential to act as a multiplier

(source: Elinor Ostrom, TAI 4-3-2-1 Pin Code)

**‘Universal owners, unlike corporations and governments, have borderless incentives to address a borderless problem – climate change’**

# Spotlight topic 1 – climate change

David Karoly



## David Karoly

Leader of the Earth Systems and Climate Change Hub, the Australian Government's National Environmental Science Program



David Karoly is Leader of the Earth Systems and Climate Change Hub in the Australian Government's National Environmental Science Program, based in CSIRO. He is also an honorary Professor at the University of Melbourne. He is an internationally recognised expert on climate change and climate variability.

Professor Karoly is a member of the National Climate Science Advisory Committee. During 2012-2017, he was a member of the Climate Change Authority, which provides advice to the Australian government on responding to climate change, including targets for reducing greenhouse gas emissions. He has been involved in the Assessment Reports of the Intergovernmental Panel on Climate Change in 2001, 2007, 2014 and 2021 in several different roles. He was elected as a Fellow of the Australian Academy of Science in 2019 and was awarded the 2015 Royal Society of Victoria Medal for Scientific Excellence in Earth Sciences.

From 2007 to February 2018, David Karoly was Professor of Atmospheric Science at the University of Melbourne and in the A.R.C. Centre of Excellence for Climate System Science. From 2003 to 2007, he held the Williams Chair in the School of Meteorology at the University of Oklahoma.



**Earth Systems and  
Climate Change  
Hub**

National Environmental Science Programme



# Preparing for changing climate risks

Professor David Karoly, Earth Systems and Climate Change Hub  
National Environmental Science Programme, CSIRO

## Some views from leaders

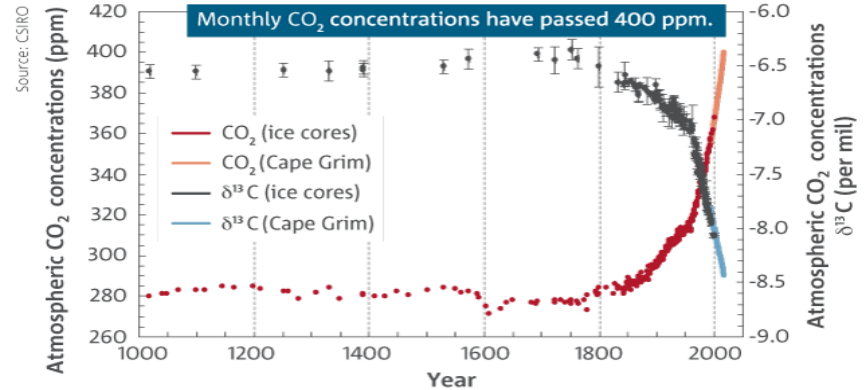
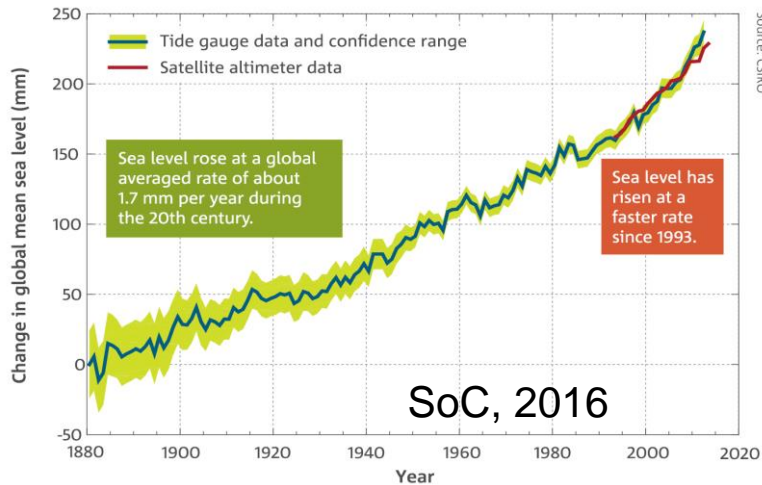
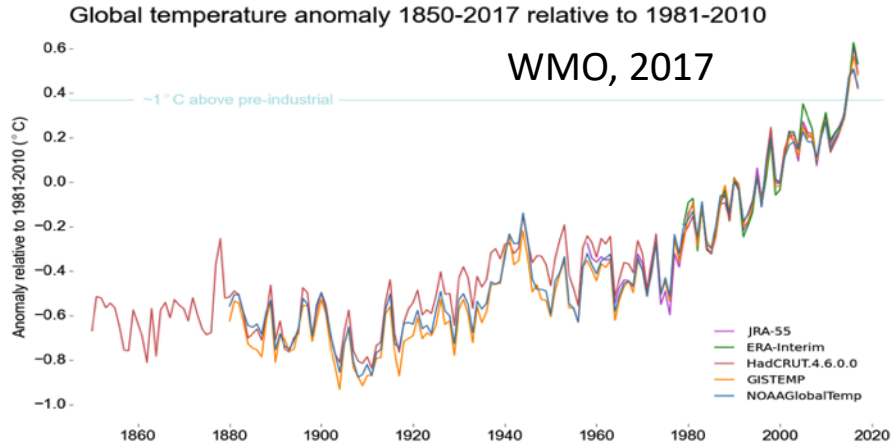
- Ban Ki Moon *“Climate change is the greatest threat facing humanity. It threatens to undo 50 years of our development work and it will impact the poor in the greatest sense.”*
- Barack Obama *“We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations.”*
- Andrew Mackenzie, BHP, 2019 *“The evidence is abundant: Global warming is indisputable. The planet will survive. Many species may not.”*

**TCFD:** Need to manage risks associated with

- physical risks due to climate change, and
- transition to a zero carbon economy

- IPCC Special Report: Climate Change and Land (SRCCL), Aug 2019
- IPCC Special Report: The ocean and cryosphere in a changing climate (SROCC), Sept 2019
- United in Science, report to UN climate action summit, Sept 2019
- Global emissions and Australian emission projections

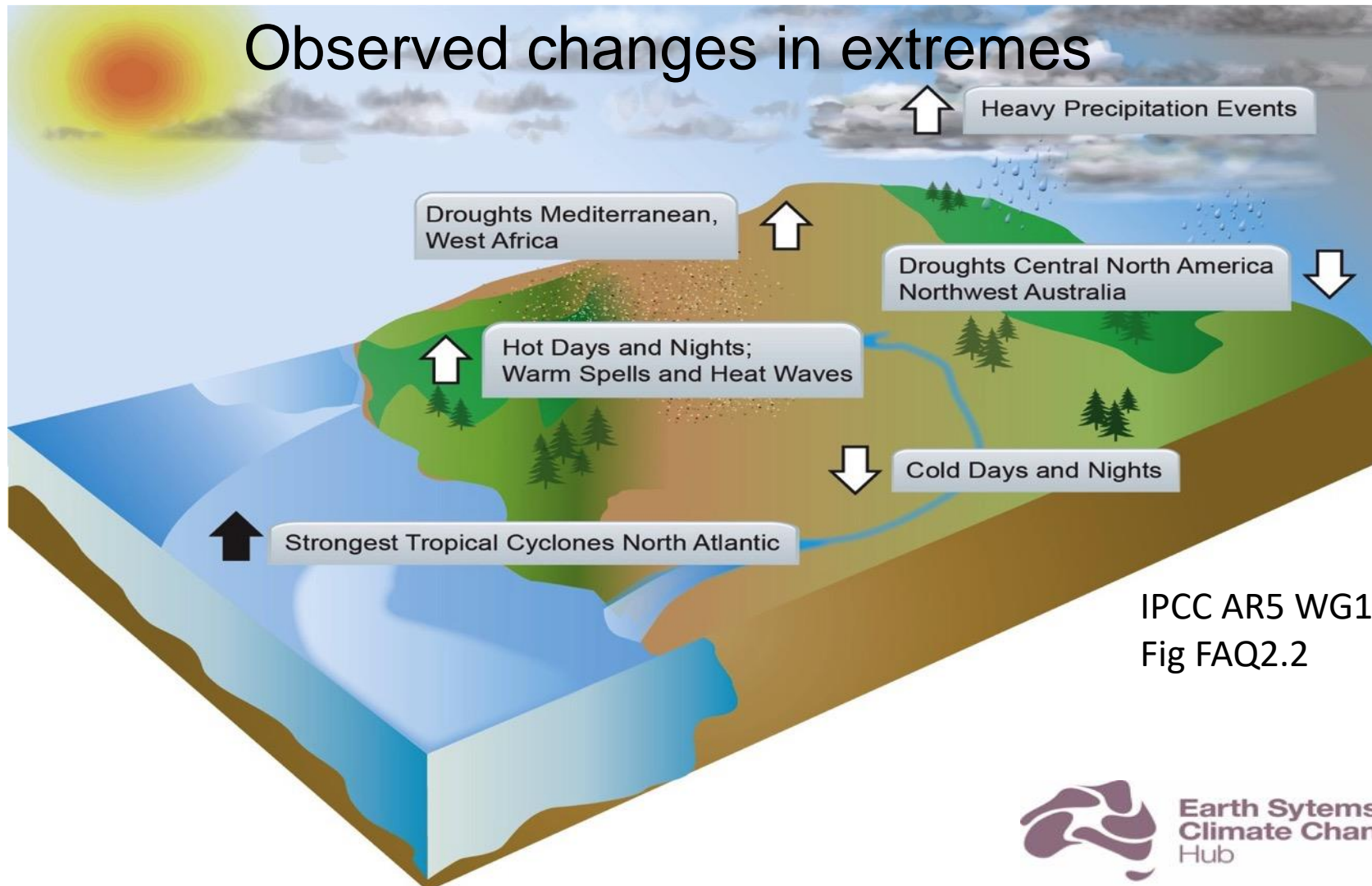
# Observed global climate change



The decrease in the ratio of the carbon-13 isotope ( $\delta^{13}\text{C}$ ) that accompanies increasing CO<sub>2</sub> trends show that the sources are fossil fuel and land-use change.

SoC, 2016

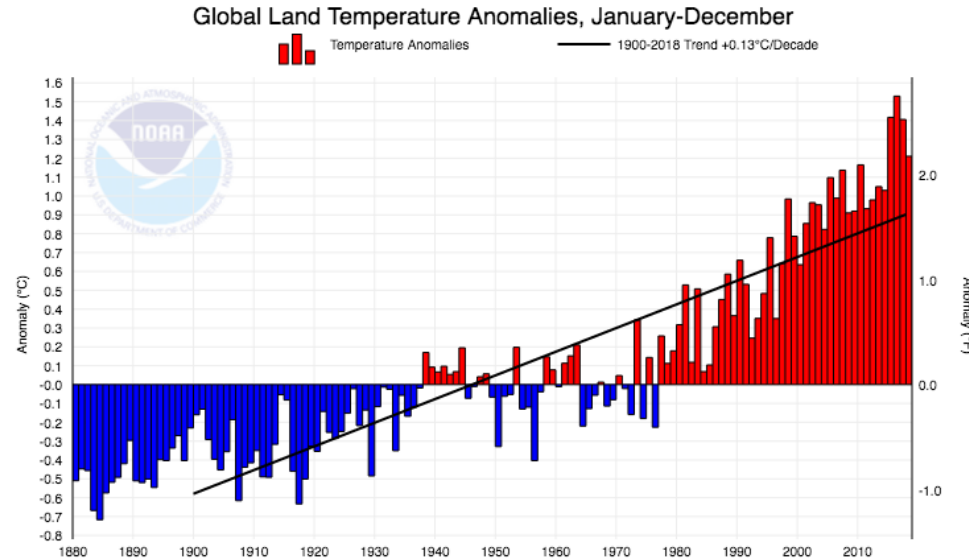
# Observed changes in extremes



IPCC AR5 WG1  
Fig FAQ2.2

# IPCC Special report on Climate change and Land, 2019

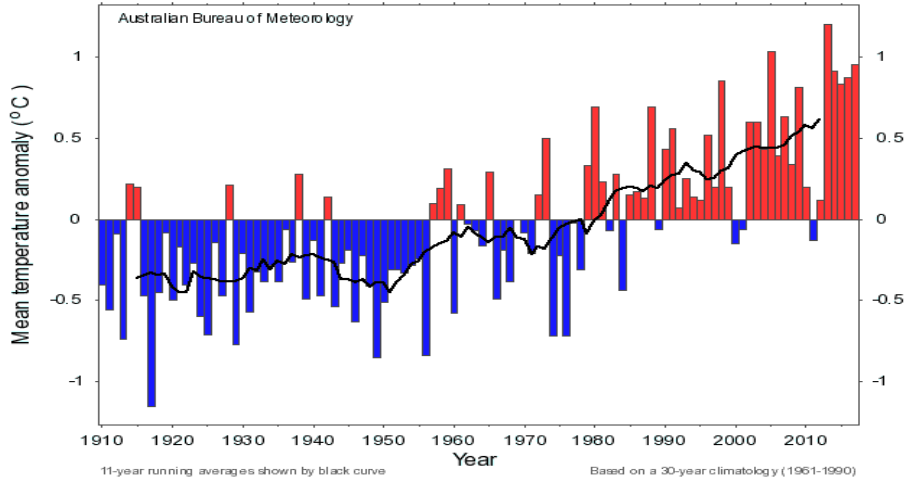
- Since the pre-industrial period, the land surface air temperature has risen nearly twice (~1.7 times) as much as the global average temperature
- Climate change, including increases in frequency and intensity of extremes, has adversely impacted food security and terrestrial ecosystems as well as contributed to desertification and land degradation in many regions



# IPCC Special report on the Ocean and Cryosphere in a Changing Climate, 2019

- It is *virtually certain* that the global ocean has warmed unabated since 1970 and has taken up more than 90% of the excess heat in the climate system.
- Marine heatwaves have very likely doubled in frequency since 1982 and are increasing in intensity.
- Global mean sea level is rising, with acceleration in recent decades due to increasing rates of ice loss from the Greenland and Antarctic ice sheets, as well as continued glacier mass loss and ocean thermal expansion.

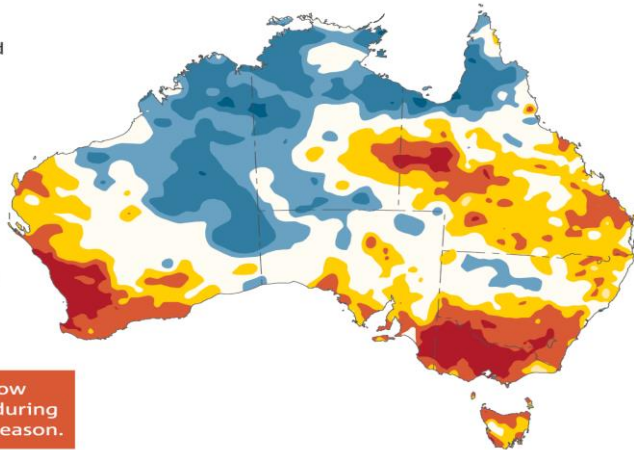
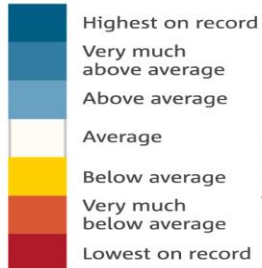
Annual mean temperature anomaly - Australia (1910-2017)



# Observed Australian climate change

## April-Oct rain deciles 1996-2015

Rainfall decile ranges

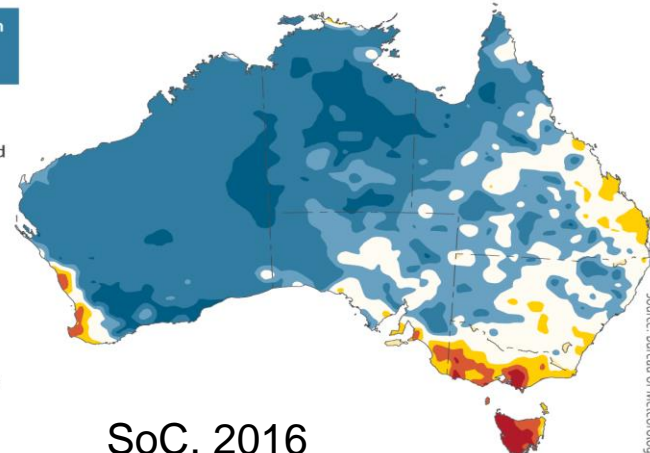
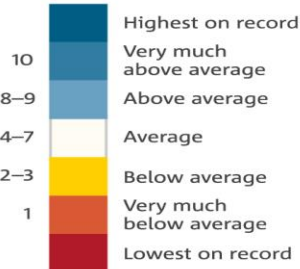


Rainfall has been very low over parts of Australia during the southern growing season.

## Oct-April rain deciles 1996-2015

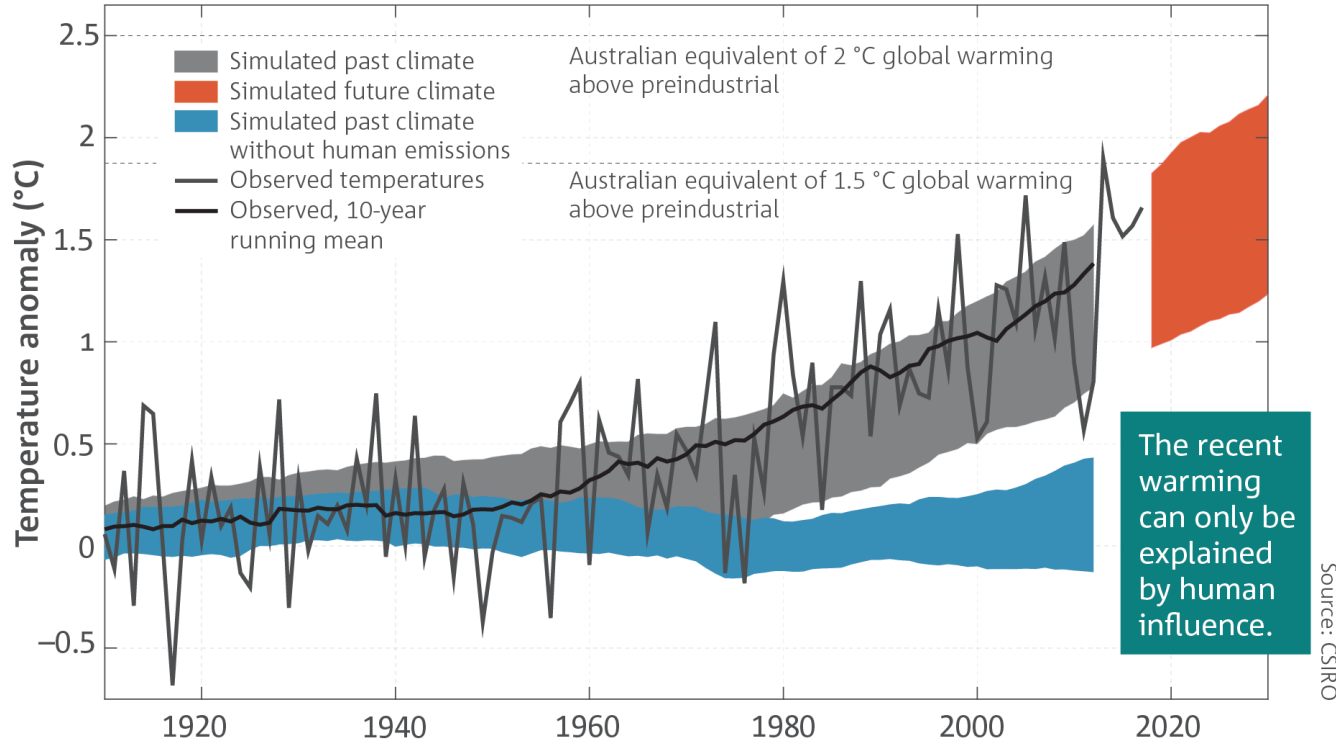
Rainfall during the northern wet season has been very much above average.

Rainfall decile ranges

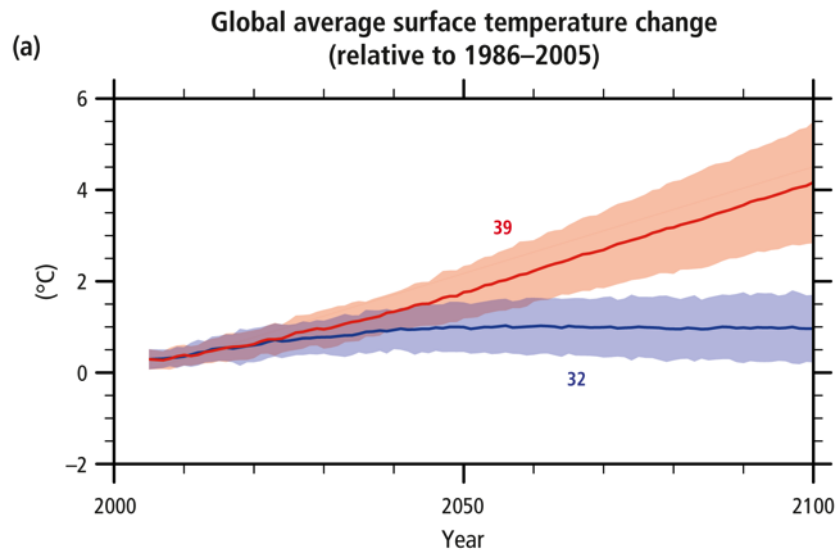


SoC, 2016

# Simulated temperature changes in Australia

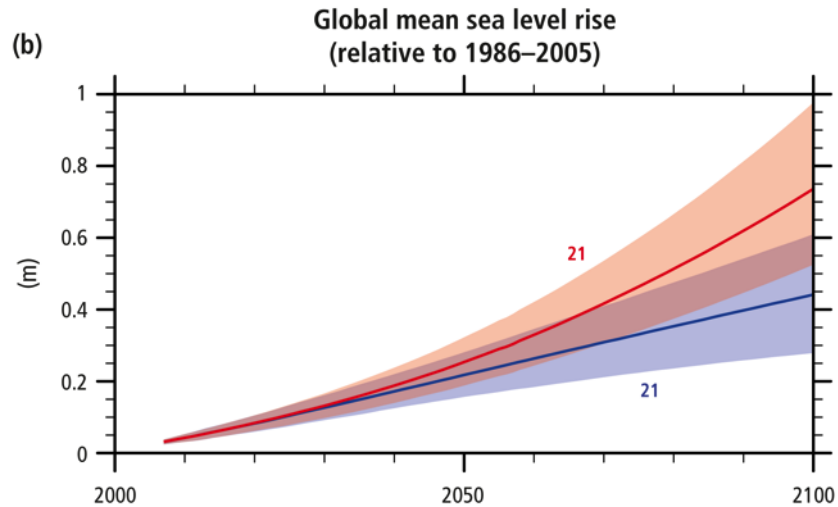


SoC, 2018



## Projected climate change

Two paths for global warming, depending on emissions. Very low emissions gives >50% chance of warming less than 2°C



Sea level rise in 2050: ~15-35cm  
Continues to rise for centuries after surface temperature stabilises

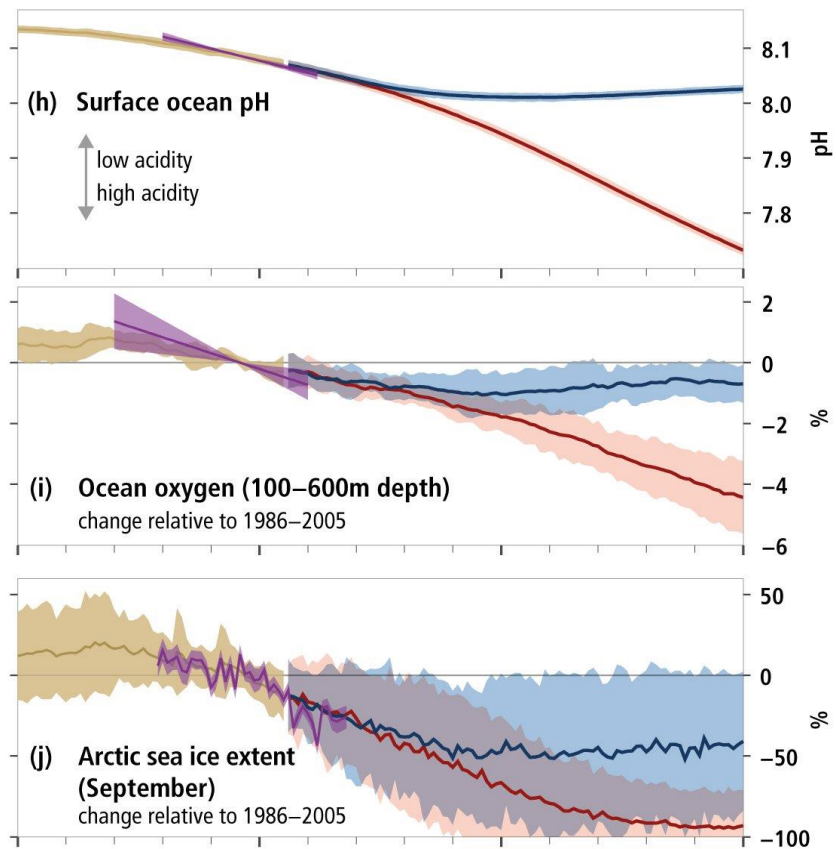
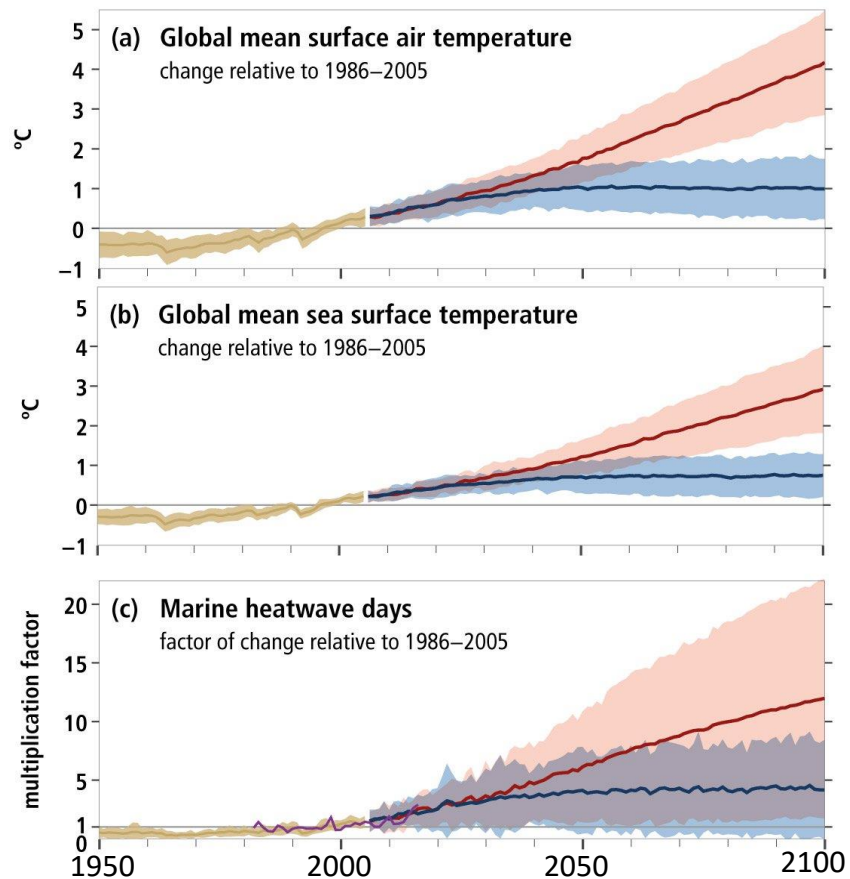
Fig SPM.6, IPCC AR5 Synthesis Report

# Past and future changes in the ocean and cryosphere

From IPCC SROCC 2019, Fig SPM.1

Historical changes (observed and modelled) and projections under RCP2.6 and RCP8.5 for key indicators

Historical (observed) Historical (modelled) Projected (RCP2.6) Projected (RCP8.5)



# Projected changes in Australian climate

Source: Bureau of Meteorology and CSIRO



Global temperature rise to continue



Sea-level rise to continue



Oceans around Australia to warm further and acidification will continue



Temperatures will increase, with more hot days and fewer cool days

Tropical cyclones projected to decrease in number, but increase in intensity



Extreme rainfall events likely to be more intense



Harsher fire weather projected for southern and eastern Australia



Decreases in winter and spring rainfall for southern continental Australia, with an increase in droughts

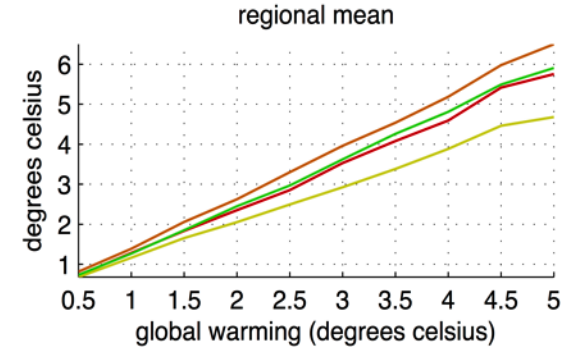
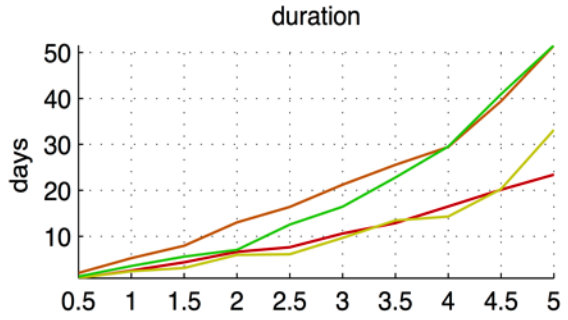
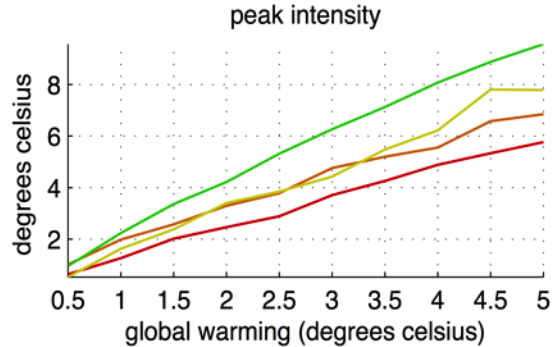
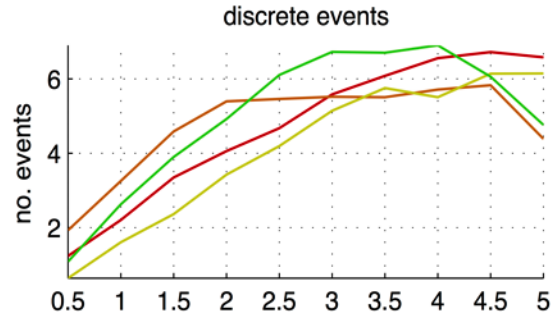
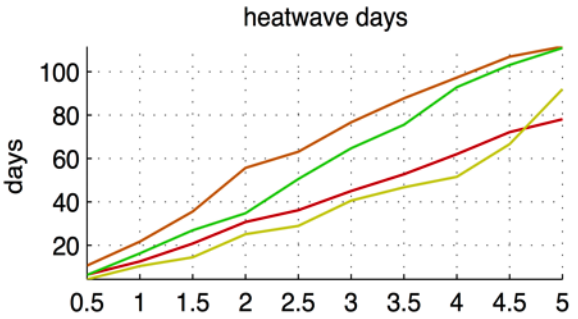


SoC, 2016



Earth Systems and  
Climate Change  
Hub

# Changes in heatwaves for different levels of future global warming



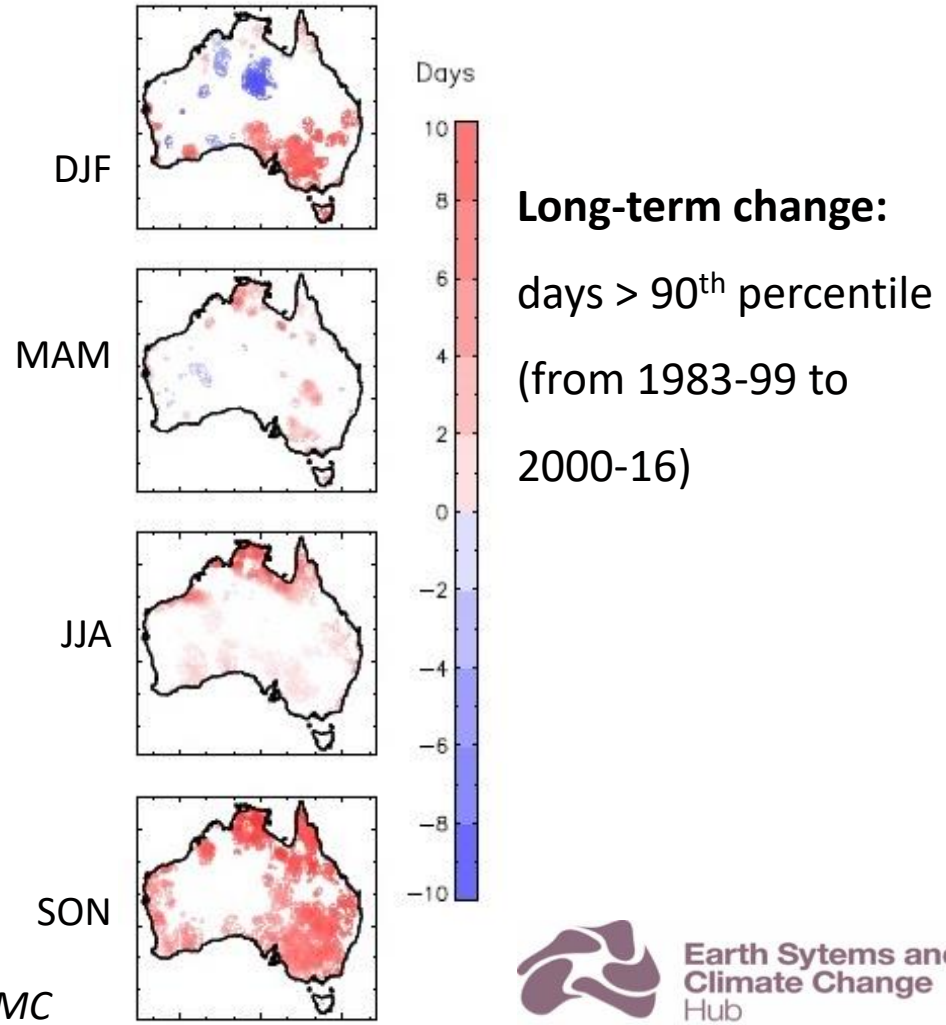
Marked increases in number of heatwave days and peak intensity, ~50% more than mean warming

From Perkins-Kirkpatrick, 2017

# Fire weather

## Significant trends towards more dangerous conditions in SE Australia

- Earlier start to the fire season in many parts of Australia



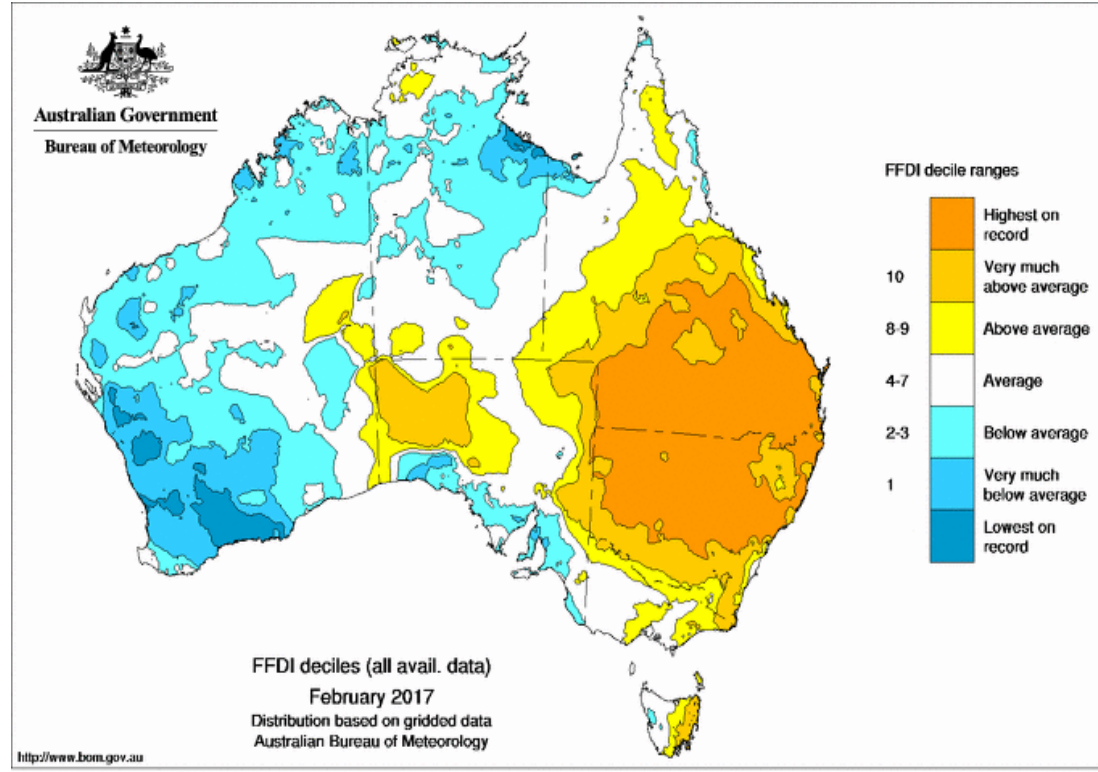
From Dowdy (2017), *JAMC*

# Fire weather

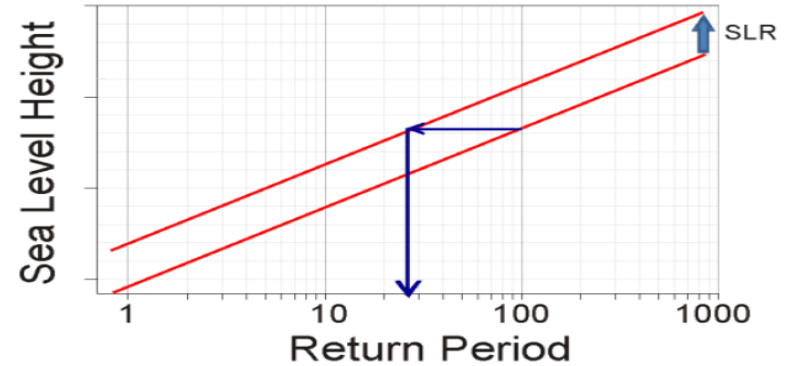
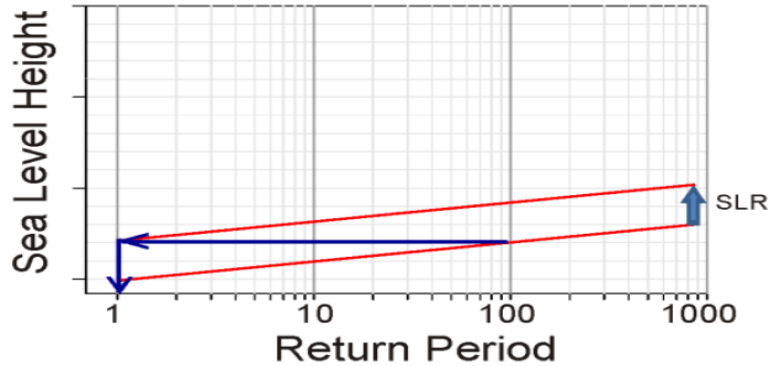
FFDI deciles for Feb 2017

**Significant trends towards more dangerous conditions in NSW**

- Many recent events are worse than conditions experienced previously.



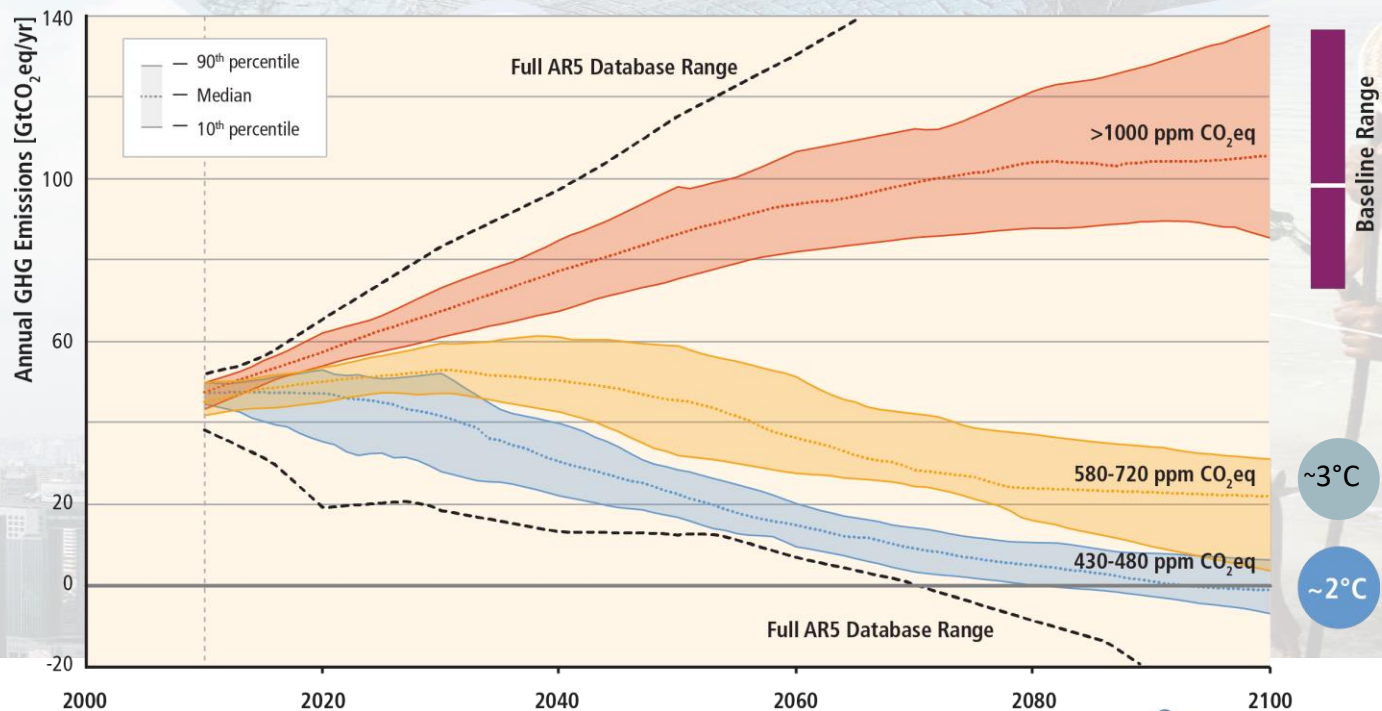
# Frequency of inundation will increase with sea-level rise



- Change in frequency depends on the characteristics of extreme events at a given location
- For Williamstown, a 0.5 m sea-level rise is expected to increase the frequency of exceedances by a factor of ~ 130 times
- i.e. a 1-in-100 year event will occur more than once per year under a 0.5 m sea-level rise

Data source: IPCC AR5, Chapter 13, Figure 13.25; IPCC SROCC

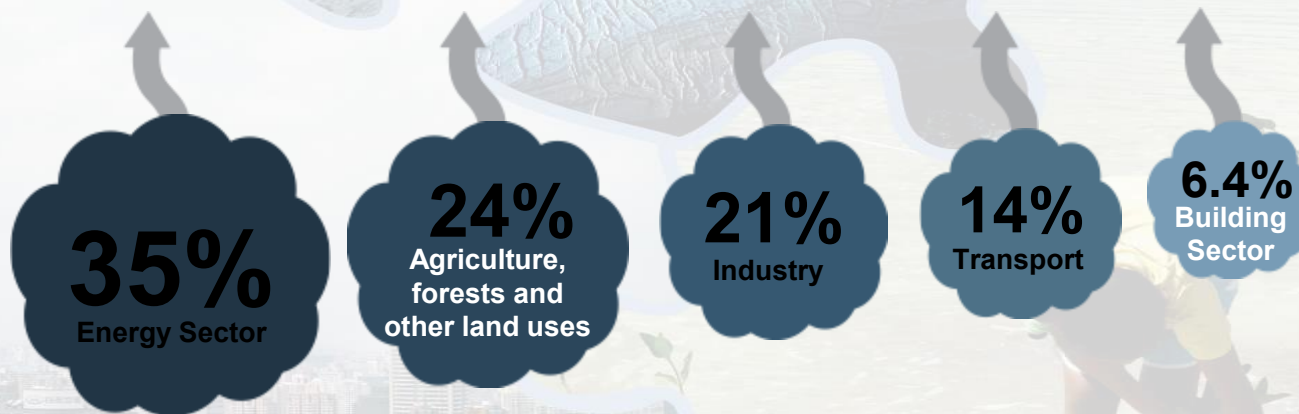
# Stabilization of atmospheric concentrations requires moving away from the baseline – regardless of the mitigation goal.



Based on Figure 6.7

# Global sources of emissions

Energy production remains the primary driver of GHG emissions



2010 GHG emissions

AR5 WGIII SPM

# UNFCCC Paris Agreement, Dec 2015

Aims to strengthen the global response to climate change by:

- (a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C,
- (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development;
- (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development.



# Mitigation Measures



**More efficient use of energy**



**Greater use of low-carbon and no-carbon energy**

- Many of these technologies exist today



**Improved carbon sinks**

- Reduced deforestation and improved forest management and planting of new forests
- Bio-energy with carbon capture and storage

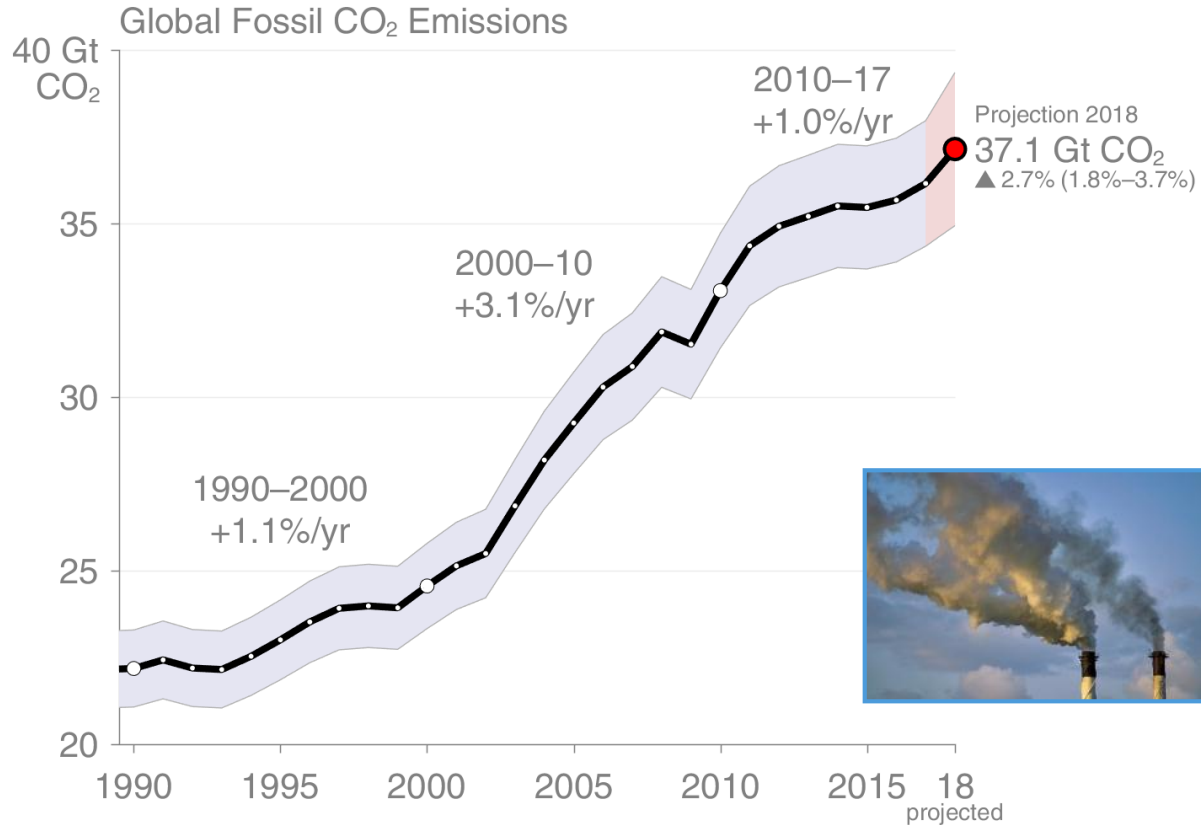


**Lifestyle and behavioural changes**

AR5 WGIII SPM

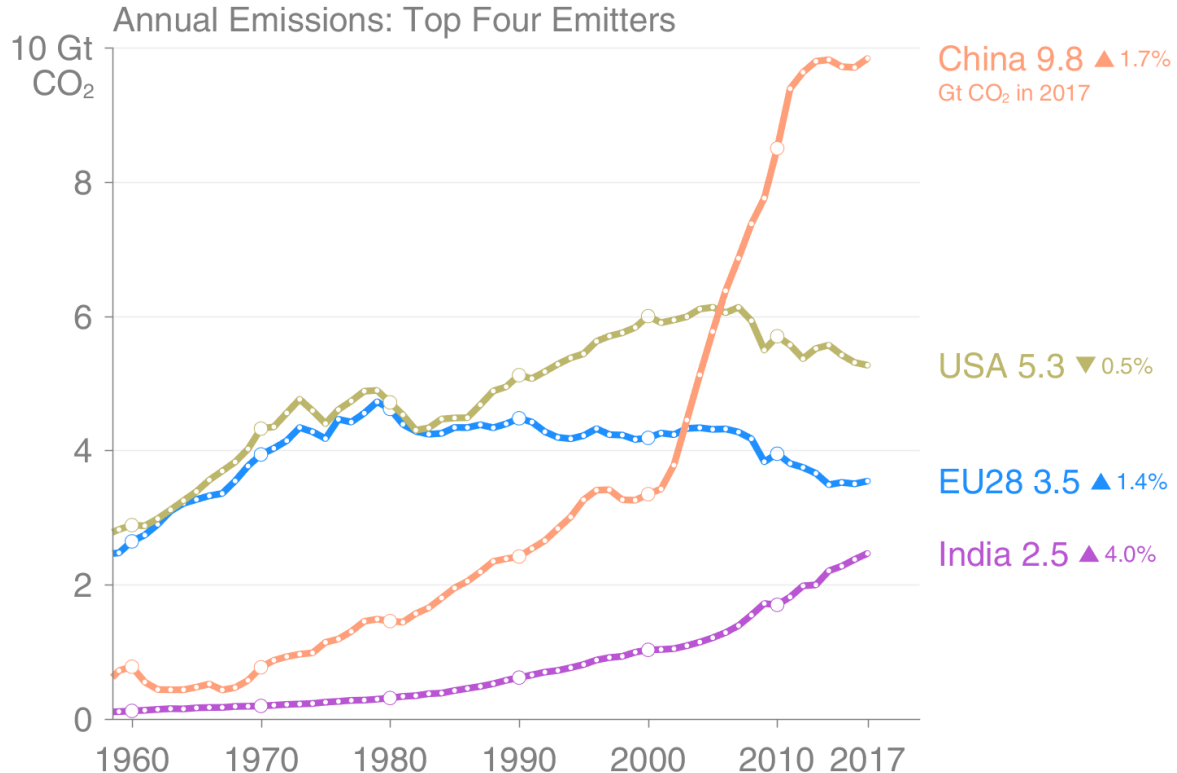
# Emissions from fossil fuel use and industry

Global emissions from fossil fuel and industry:  $36.2 \pm 2$  GtCO<sub>2</sub> in 2016, 62% over 1990



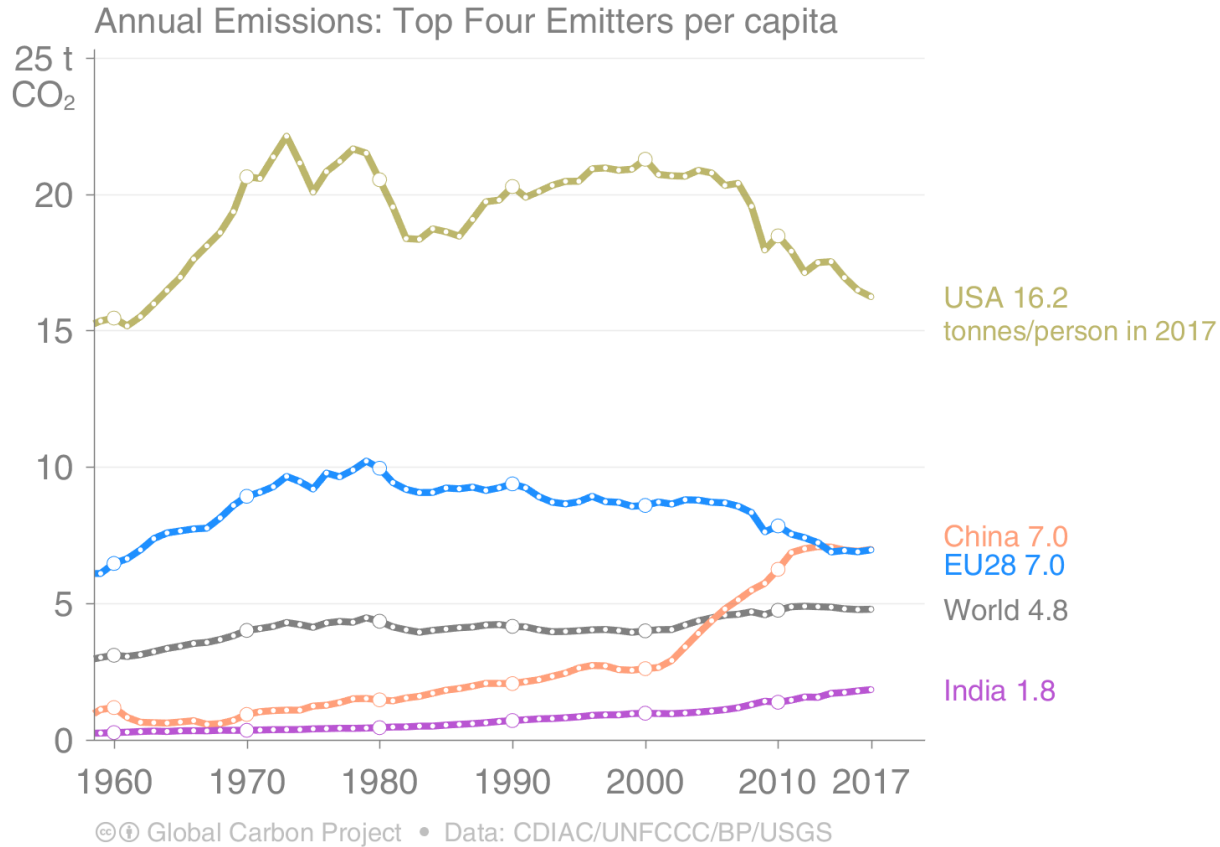
# Top emitters: fossil fuels and industry

The top four emitters in 2016 covered 59% of global emissions  
 China (28%), United States (15%), EU28 (10%), India (7%)



# Top emitters: fossil fuels and industry (per capita)

Countries have a range of per capita emissions reflecting their circumstances

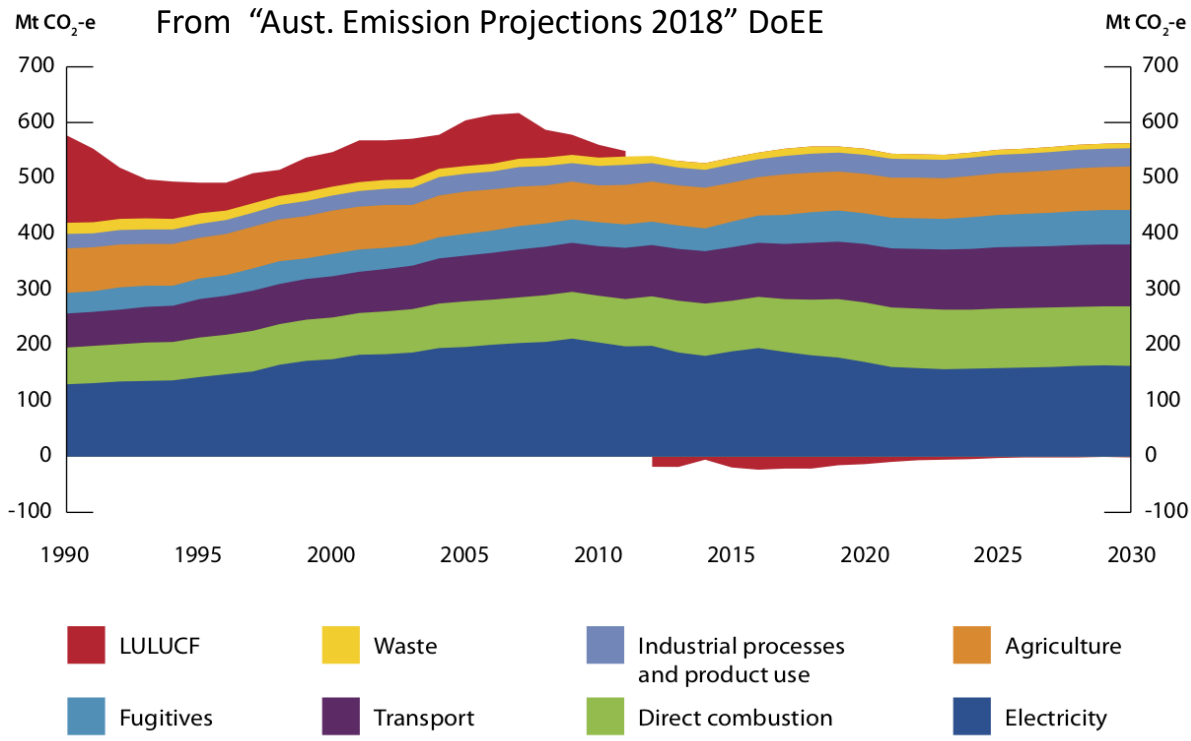


# Growth in Australian emissions by sector 1990-2030

2020 relative to 2000: -1%, despite commitment of -5%

Australia's INDC 2030: 26% to 28% below 2005, latest -7%

Figure 3 Australia's emissions, 1990 to 2030



# **United in Science**

report informing UN  
Climate Action Summit,  
Sept 2019

from WMO, UNEP,  
IPCC, GCP, Future  
Earth, GFCS



# Summary

- Climate change has already led to significant changes in climate risks and will continue to do so for the next 30-100 years or more
- Most confident projected changes are for increases in heat waves, severe fire weather and coastal flooding, less certainty in many other extremes
- Recent Special Reports from IPCC have confirmed faster rate of observed climate change and increasing impacts
- Much stronger global emission reductions are needed to limit global warming to well below 2 degrees above pre-industrial levels

# Key Messages

- **Human influence on the climate system is clear**
- **The more we disrupt our climate, the more we risk severe, pervasive and irreversible impacts**
- **We have the means to limit climate change and build a more prosperous, sustainable future**

AR5 WGI SPM, AR5 WGII SPM, AR5 WGIII SPM

# References

- IPCC Special Report *Global Warming of 1.5°* <https://www.ipcc.ch/sr15/>
- Aust Academy of Science *The science of climate change: Questions and answers 2015* <https://www.science.org.au/climatechange>
- IPCC Special Report *The Ocean and Cryosphere in a Changing Climate*, 2019 <https://www.ipcc.ch/srocc/home/>
- IPCC Special Report *Climate Change and Land*, 2019 <https://www.ipcc.ch/report/srccl/>
- Global Carbon Project Carbon Budget 2019 [www.globalcarbonproject.org/](http://www.globalcarbonproject.org/)
- UN *United in Science*, 'Synthesis report latest climate science' UN Climate Action Summit, 2019 <https://www.un.org/en/climatechange/un-climate-summit-2019.shtml>
- CSIRO & Bur of Met State of the Climate 2018 <https://www.csiro.au/en/Showcase/state-of-the-climate>



Earth Systems and  
Climate Change  
Hub

National Environmental Science Programme



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The Earth Systems and Climate Change Hub is funded by the Australian Government's National Environmental Science Program, with co-investment from the following partner agencies

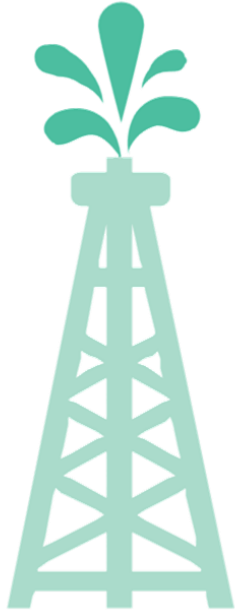


# Spotlight topic 2 – corporate stewardship in pursuit of the SDGs

Tim Hodgson

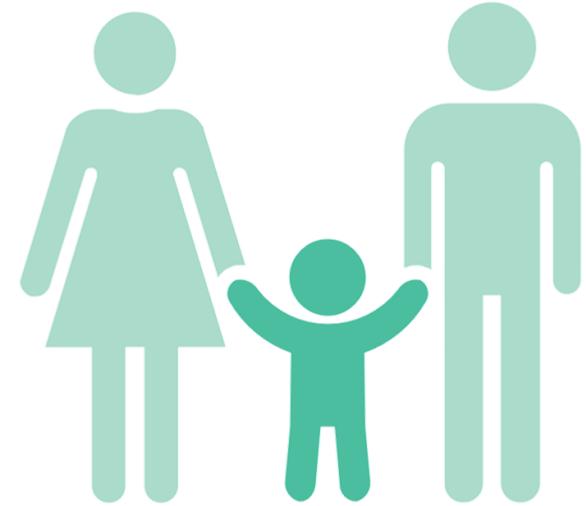


## There are two things that matter



We can stop worrying about quite a lot of things because, in the grand scheme, they simply do not matter. My personal belief regarding climate change has hardened. I believe that we have left the era of climate change and we have entered an era of climate emergency. We have about 10 years to change the trajectory of climate emissions...

The second thing that matters is inequality. Inequality is more difficult; it involves morals and ethics; it is deeply political. That doesn't mean we can safely ignore it. For sustainability, one aspect of inequality really matters – intergenerational fairness.



## Climate change

## Inequality

## The law of the bathtub

### (Bathtubs, intergenerational fairness and the sustainability end game)

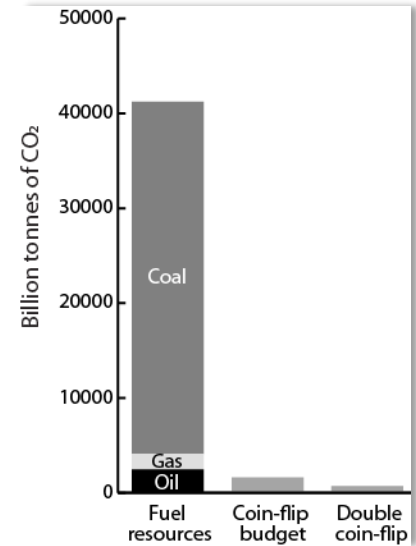
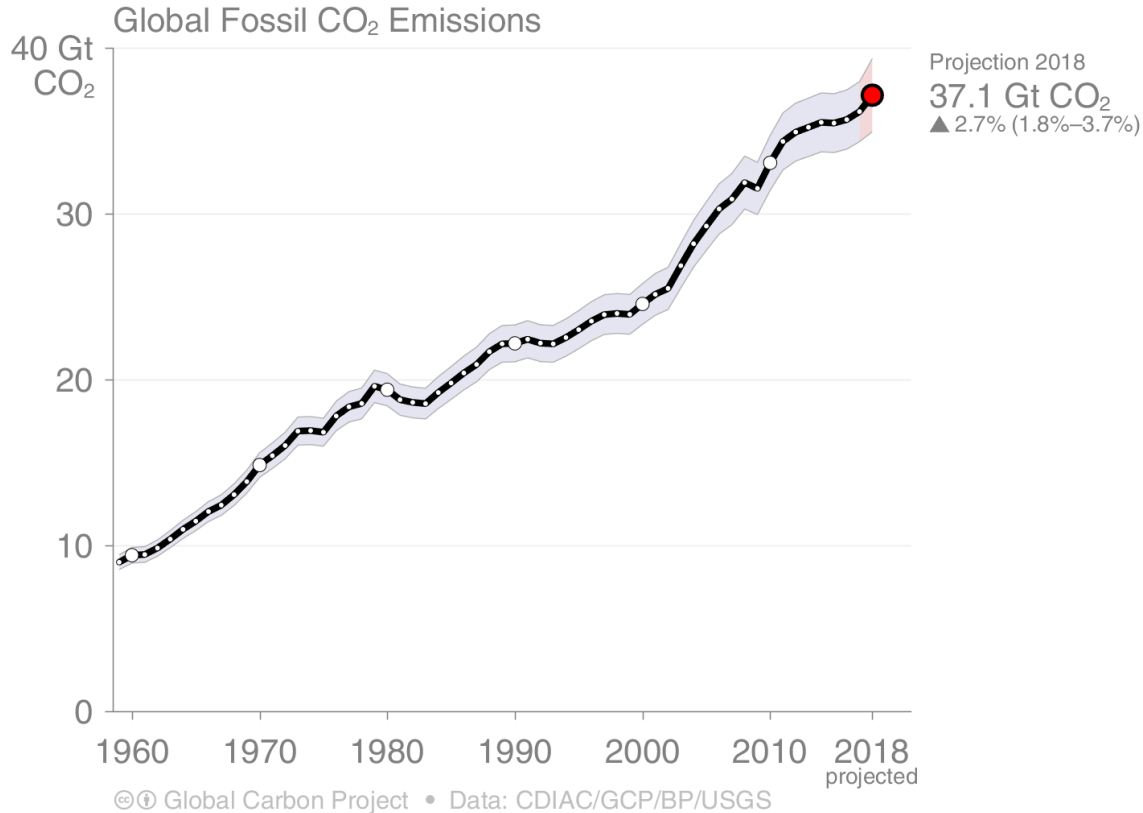
It is time to hand the bathtub to the next generation. The simplest definition of intergenerational fairness would require us to hand over the bathtub with the same depth, temperature and quality of water as we inherited. This would be intergenerational equity. But, if we have used our 'bathing endowment' then under reasonable assumptions the depth will be shallower, the temperature will be lower, and the water quality degraded. It follows that intergenerational fairness will cost us, in some way.

When we look through the lens of intergenerational fairness, the use of endowments are far from free. And just in case it is necessary to spell it out, the endowment we are really talking about here is any natural resource found within the earth's atmosphere.

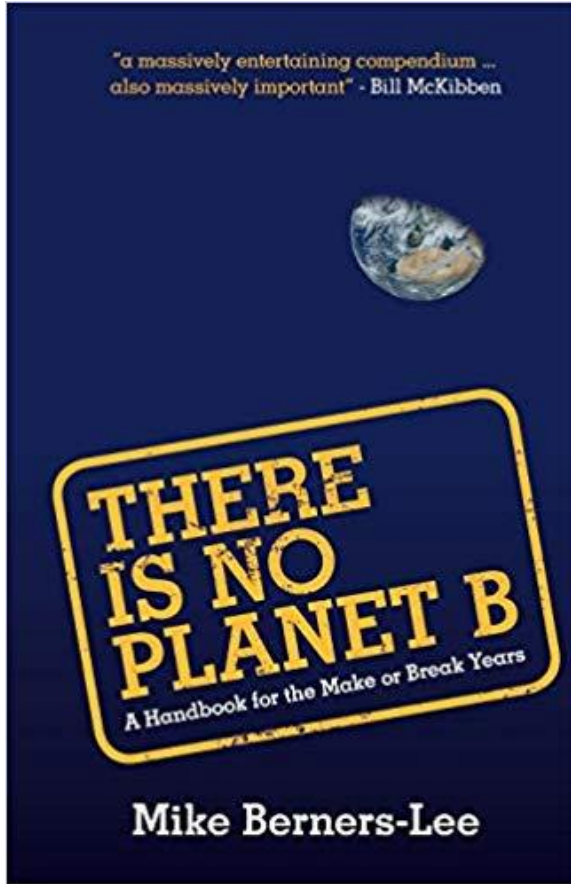
Like for like is easy. Let's try something harder. In this case we decide that baths are for dinosaurs and the new generation would much rather inherit a shower. Instead of paying to top up and heat the bathwater, and to build the purification plant, we will instead pay to have a shower fitted. Yes, the next generation inherit a degraded 'bathing endowment' but they also get a brand new shower. The question is, is this fair? The answer lies along a spectrum.



# Our awareness to-date has had zero effect



Source: *The Burning Question*,  
 Mike Berners-Lee & Duncan Clark



While Mike's book deals with a host of inter-related problems in addition to climate change (including inequality) – it's main purpose is to offer hope. But not false hope.

We already have, or just need to scale, the solutions to these problems. Getting out of our fix is technically possible. There is a single exception – the technical solution for carbon-free long-haul flying is nowhere in sight. We will need to be more frugal with flying.

The issue therefore, is whether we have the values, thinking skills and will to implement the changes required.

## The battle of the tipping points

Can we organise ourselves faster than the climate runs away?



Craters from methane explosions in Russian permafrost

## Divest or stay engaged?

### What is responsible stewardship?

- Do you have written criteria for divestment decisions?
- Example criteria for 'managed decline of fossil fuel businesses'\*
  1. No lobbying for policies that reduce the probability of the 1.5°C goal.
  2. No exploration spending.
  3. No approval or acquisition of new fossil fuel infrastructure or projects.
  4. A clear plan for wind down of fossil fuel extraction.
  5. Remuneration policies that support managed decline of fossil fuel extraction

\* Source: [www.divestinvest.org](http://www.divestinvest.org)

## Practitioner panel



## Mary Delahunty

Head of Impact, HESTA



Mary is the Head of Impact for HESTA and has been with the fund since early 2013. She has held senior roles in financial services organisations for over 15 years and is passionate about progressing responsible investment practices. HESTA is one of Australia's largest superannuation funds with \$50bn under management and over 880,000 members.

Mary is a 2015 Churchill Fellow awarded for the completion of international research on equity for women in pension systems.

Mary is the Chair of the Ministerial Advisory Council for Gender Equality in the State of Victoria. The Council's role is to advise the Minister for Women on the Safe and Strong equality strategy.

Mary is also a councillor and former Mayor of the City of Glen Eira. Mary is also a Board Member of The Emergency Services Telecommunication Authority and an advisory panel member for the State Government, she is a past Chair of Reclink Australia, a National Not For Profit organisation offering sports and recreation opportunities to break the cycle for disadvantaged Australians.

Mary holds a Masters of Finance (Corporate Advisory) and has three young children.

## Allison Hill

Director of Investments, QIC



Allison Hill joined QIC's Global Multi-Asset (GMA) team in January 2018. Allison is the Director of Investments within the GMA Team. She has direct responsibility for the investment strategy for various funds, including WorkCover Queensland. In addition, Allison leads GMA's external manager research program.

Allison has 23 years' experience in investment management and financial markets. Prior to joining QIC, Allison was the Chief Executive Officer at DMP Asset Management, where she oversaw the investment process and asset consulting practice. Prior to this, Allison spent 11 years at Frontier Advisors as a Senior Consultant. Allison was the lead consultant for several of Australia's largest superannuation funds, was the Head of Debt and Alternatives Research and a member of Frontier's investment and leadership committees. Allison has a Bachelor of Commerce from Melbourne University and holds several post graduate qualifications including a Graduate Diploma in Management from the AGSM and is a GAICD.

## Liza McDonald

Head of Responsible Investments, First State Super



As Head of Responsible Investment Liza is responsible for development and implementation of First State Super's Responsible Investment Policies and Socially Responsible Investment Options including manager and asset class ESG reviews; execution of the Fund's Climate Change Adaptation Plan and broader ESG policy compliance (voting, screening and engagement with companies).

Prior to joining FSS, Liza was employed at Mercer Legal from June 1997 to December 2006 focusing on trustee education and corporate secretarial duties for trustees.

Liza is a Director of the Australian Council of Superannuation Investors, holds advisory committee positions with the Principles of Responsible Investment (Australia Network) and ESG RA and is a member of the the Australian Sustainable Finance Initiative - Technical Working Group - Better Informed Decisions. Liza holds a Post Graduate Diploma of Applied Finance at Kaplan Education.



# Concluding remarks


Tim Hodgson



Letter | Published: 01 July 2019

# Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target

Dan Tong, Qiang Zhang , Yixuan Zheng, Ken Caldeira, Christine Shearer, Chaopeng Hong, Yue Qin & Steven J. Davis 

*Nature* **572**, 373–377 (2019) | [Download Citation](#) 

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## Here's the gig



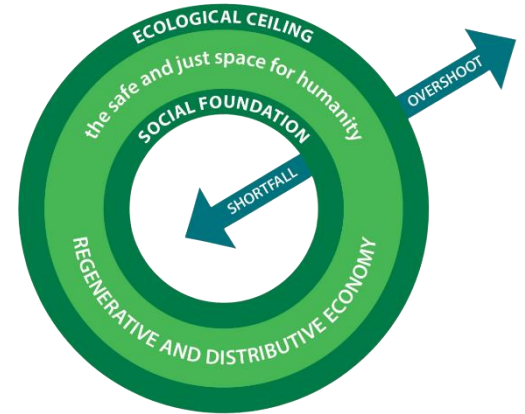
'We' have built an economic machine that runs 24x7

The economic machine is making the rich richer,  
and is dumping its waste into environmental sinks

Our past returns were overinflated – because we  
didn't pay the true cost of production

EITHER | we maintain the machine and risk a future collapse in profits / returns

OR | we risk current profits / returns and re-plumb the machine



Spectate

Participate

# The world **NEEDS** a +1.5C economy

## ...what would that look like?

- What should stewardship / engagement look like?
- What role should exclusions play?
- Do we need to deliberately strand some of our assets?
- What 'inevitable policy response' (PRI) should we anticipate?
- How do we invest in / build a circular economy?
- How do we select which technologies to fund and scale?
- When is too late?
- How do we redefine fiduciary duty?
- How should we structure manager mandates?
- How should we change monitoring and reporting?

Future  
research  
agenda

+

Call to action

=

Who's in?

## Contributions from the room

- The most important thing I learned today
- The most important action for the investment industry to take right now

# Limitations of reliance

## **Limitations of reliance – Thinking Ahead Group 2.0**

This document has been written by members of the Thinking Ahead Group 2.0. Their role is to identify and develop new investment thinking and opportunities not naturally covered under mainstream research. They seek to encourage new ways of seeing the investment environment in ways that add value to our clients.

The contents of individual documents are therefore more likely to be the opinions of the respective authors rather than representing the formal view of the firm.

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