



Andrew Young

Vegetable Grower

Expert in Nothing

A long way from the
sharpest tack in room

But I have seen some
pretty dumb stuff from
smart people

Redgold Pty Ltd

- Private diverters at Wemen, on the Victorian side of the Murray where it loops South Between Mildura and Robinvale



Redgold Pty Ltd 3rd generation vegetable growers

- We grow Lettuce and Baby leaf on forward programs with most of Australia's fresh salad packing companies mostly in NSW and Victoria. They supply quick service restaurants and retail Chain stores



Mostly winter production Harvest March until November

- We used about 1,200 megs per year
- Like all horticulture around here, our business is 100 % dependent on reliable water supply
- Not many of our competitors in more coastal areas are as dependent on irrigation as us.



All of our produce
goes out in bulk
We do not retail
pack anything.



Like most horticulture in this district we have been going very well over last few years



- We have a good team with us and we enjoy the dynamic nature of our work
- We like living on our great river in the Mallee
- Customers are keen for more
- Paying too much tax

Too comfortable
Life could be pretty
comfortable if we
were content to
ignore the big issue
facing the world.



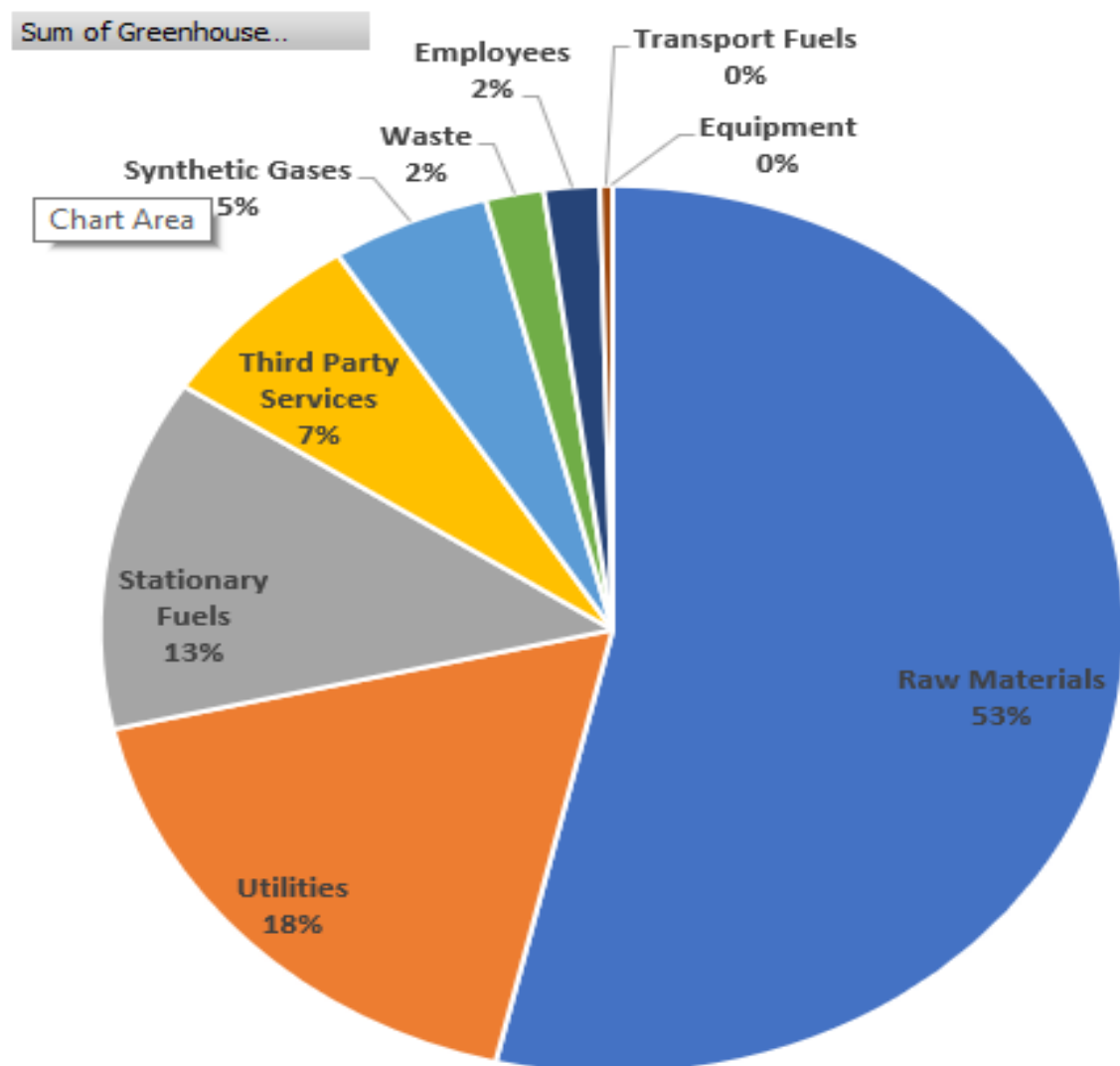
Redgold Emissions FY 2020

Source	Item/Service	Activity	Unit	Greenhouse Impact (t CO2-e/yr)	Percent of Total (%)
Utilities	Grid Electricity	443,522.3 kWh		496.7	17.7%
Equipment	Carbon Neutral Paper	138.0 kg		0.0	0.0%
Employees	Employee Commute	178,048.0 passenger.km		49.4	1.8%
Transport Fuels	Post 2004 Gasoline	500.0 L		1.2	0.04%
Transport Fuels	Post 2004 Diesel oil	2,400.0 L		6.9	0.2%
Transport Fuels	Post 2004 LPG	1,800.0 L		3.0	0.1%
Stationary Fuels	Diesel oil	126,173.0 L		359.4	12.8%
Stationary Fuels	Cylindrical Gas (15°C, 1 atm)	28.6 m3		0.1	0.002%
Third Party Services	Freight	2,742,198.2 t.km		189.2	6.8%
Synthetic Gases	Refrigerant	61.4 kg of Refrigerant		140.4	5.0%
Waste	Waste-landfill	27.6 t		33.1	1.2%
Waste	Waste -incineration	20.8 t		18.3	0.7%

Redgold Emissions FY 2020

Waste	Waste-landfill	27.6 t		33.1	1.2%
Waste	Waste -incineration	20.8 t		18.3	0.7%
Raw Materials	Manure	3,070.6 t		19.0	0.7%
Raw Materials	Sulphate of Ammonia	36.7 t		35.0	1.3%
Raw Materials	Calcium Nitrate	16,500.0 L		137.4	4.9%
Raw Materials	YaraMila	30.6 t		135.3	4.8%
Raw Materials	Nitrophoska	28.6 t		128.8	4.6%
Raw Materials	Ammonium Poly Phosphate	14,300.0 L		26.0	0.9%
Raw Materials	Urea	23.0 t		34.5	1.2%
Raw Materials	Chemicals	247,310.7 \$		136.5	4.9%
Raw Materials	Sorghum Seed	18,562.5 \$		18.5	0.7%
Raw Materials	Spinach Seeds	566,444.8 \$		565.2	20.2%
Raw Materials	Lettuce Seed	266,629.9 \$		266.0	9.5%
Raw Materials	Triticale Seed	1,200.0 \$		1.2	0.04%
TOTAL (tCO2-e)				2,801.3	100.0%

Redgold Emissions FY 2020



Row Labels	Sum of Greenhouse Impact(t CO2-e/yr)
Raw Materials	1503.529779
Utilities	496.7450018
Stationary Fuels	359.4801176
Third Party Services	189.2116758
Synthetic Gases	140.4384
Waste	51.387648
Employees	49.3679842
Transport Fuels	11.1252324
Equipment	0
Grand Total	2801.285839



Freight
(19/20 FY)

359.4
tCO2-e/yr



Seed (19/20 FY)

850.9

tCO₂-e/yr

Electricity

496.7 tCO₂-e/yr (19/20 FY)





Diesel

(19/20 FY)

370.6 tCO₂-e/yr

The Mallee has a front row seat for climate change.

We have always been
Semi Arid.

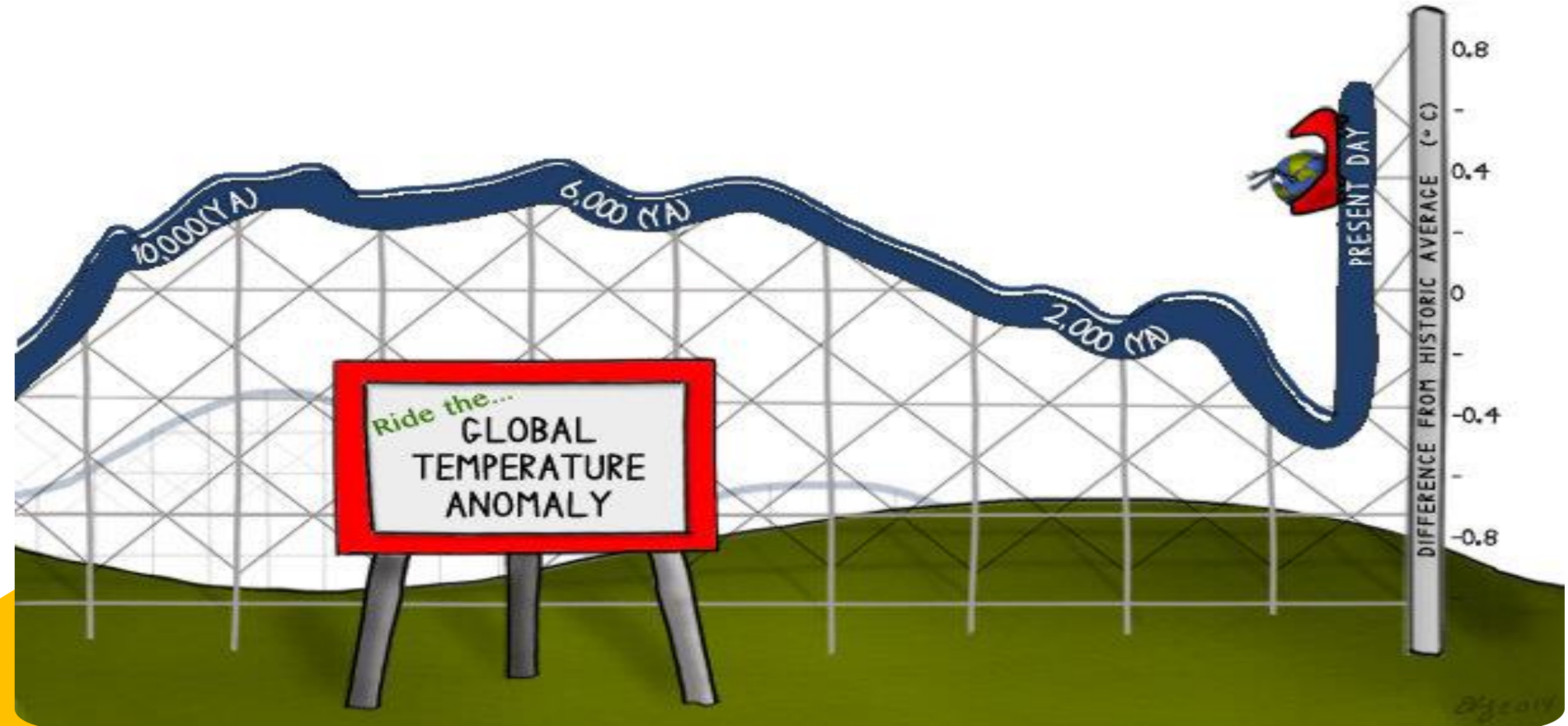
It isn't a big step to
becoming Arid.





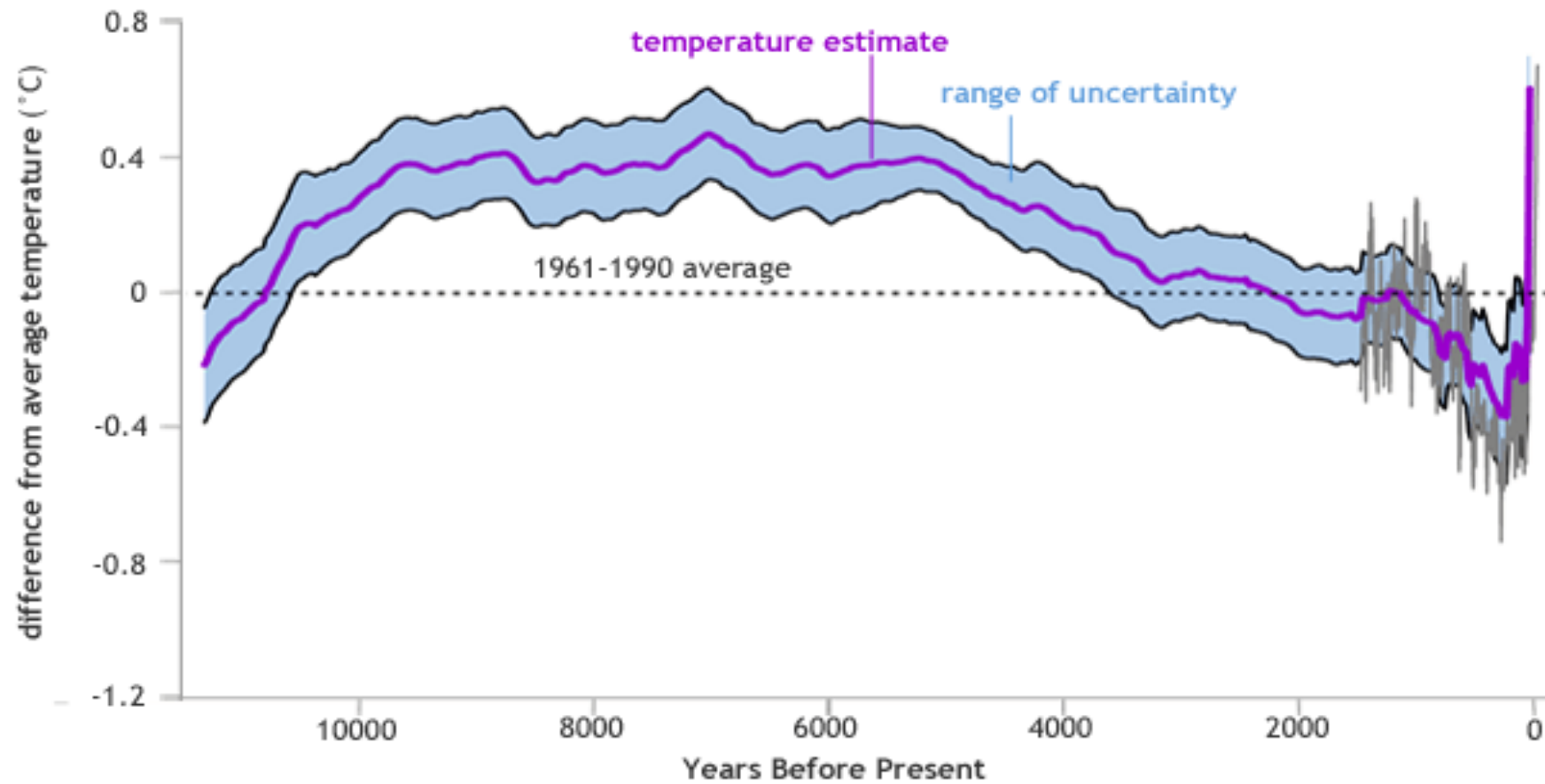
Nobody quiet knows how close to the edge
we are



Temperature graph



- 
- 
- Natural variability can explain much of the temperature variation since the end of the last ice age, resulting from factors such as changes in the tilt of the Earth's axis.



Global temperature anomalies over the past 11,300 years compared to historic average (1961-1990).

Temperature has always risen and fallen, never at this pace.

GDP per capita in England

Adjusted for inflation and measured in British Pounds in 2013 prices

Our World
in Data

LINEAR

LOG



Source: Broadberry, Campbell, Klein, Overton, and van Leeuwen (2015) via Bank of England (2020)

Note: Data refers to England until 1700 and the UK from then onwards.

OurWorldInData.org/economic-growth • CC BY

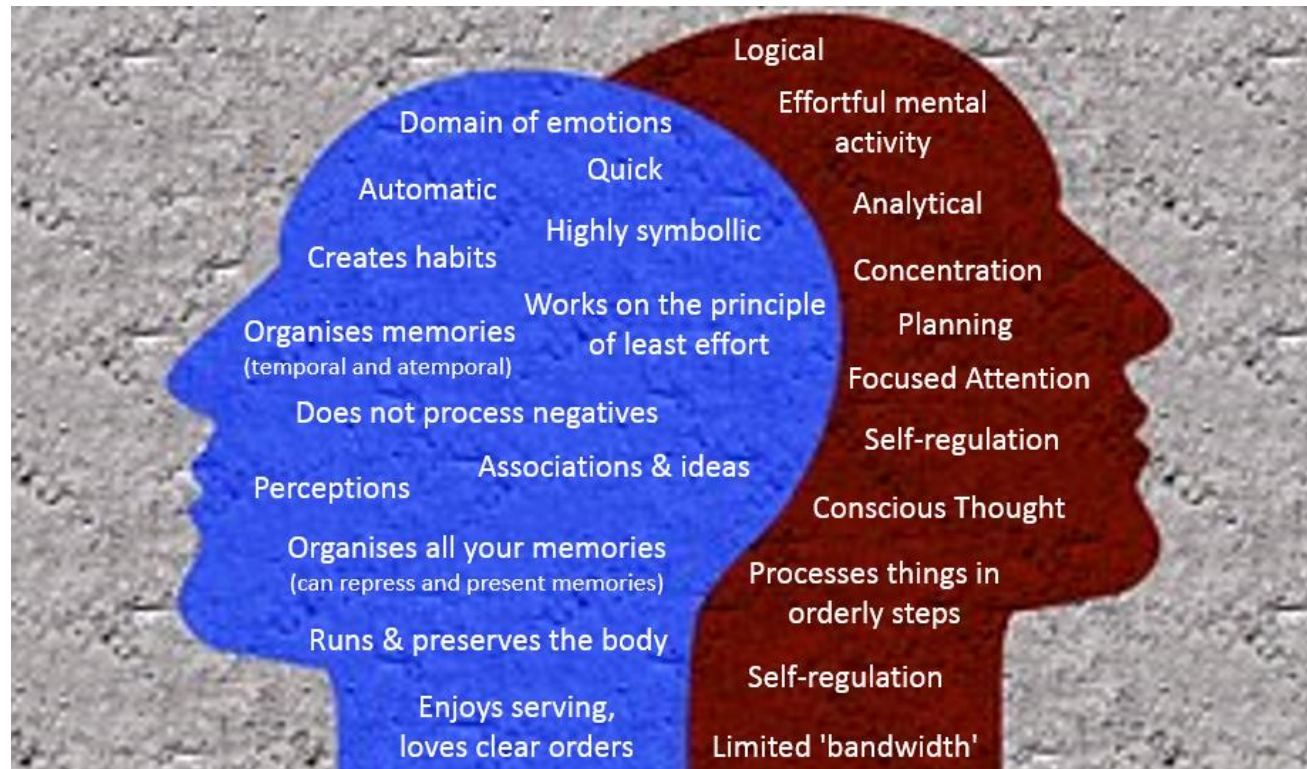
Basin Catchment

Surface water could decline 11% by 2030 under the median climate scenario (MDBSY).

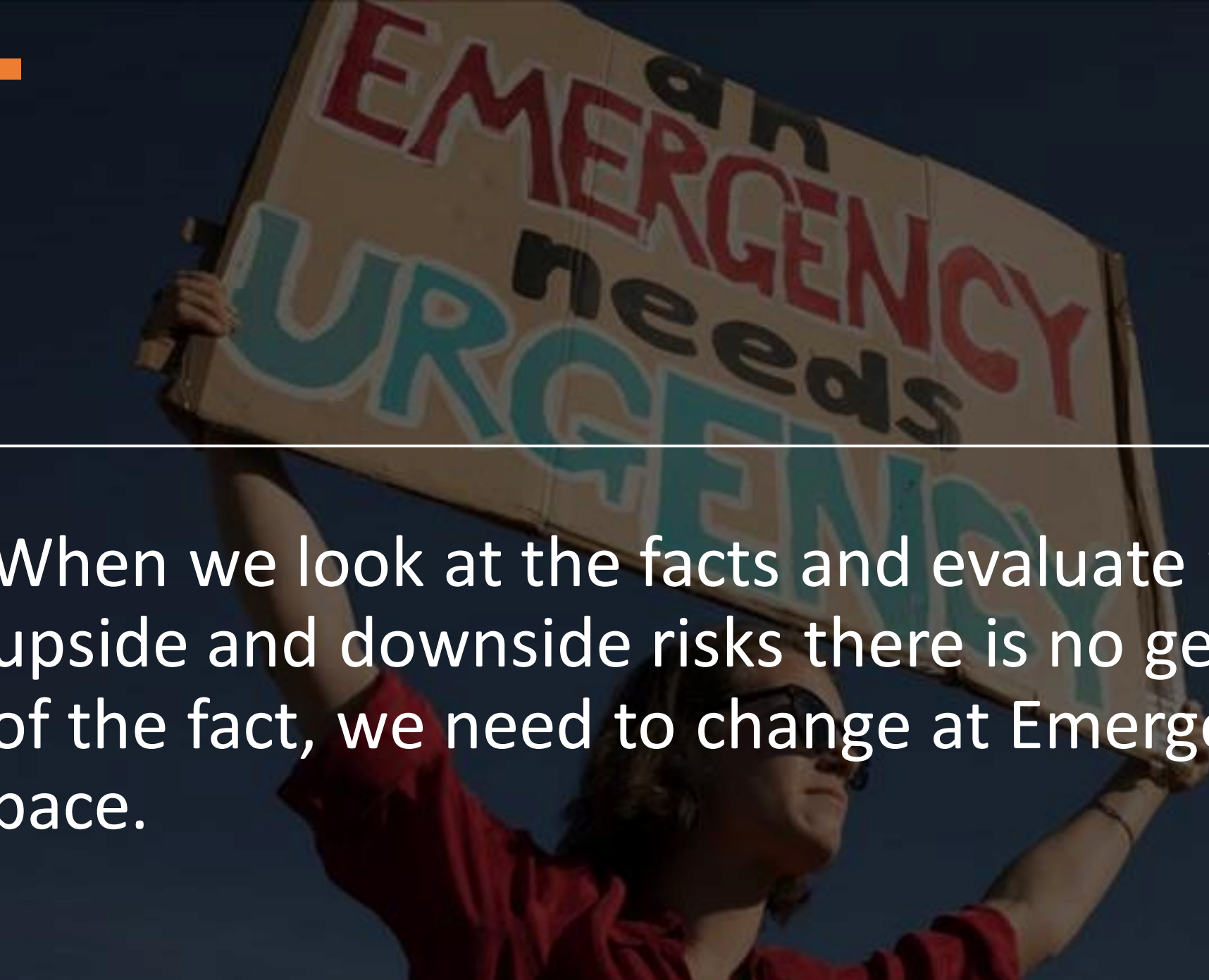
1°C increase by 2030 could lead to annual runoff decrease between -2 and -22% in the southern Basin, -29 and +12% in the northern Basin (CSIRO, SEACI).

Work under the Climate Change in Australia initiative indicates the Australian climate will experience longer dry periods and more severe droughts (comprising more frequent and intense heat waves) in the future.

I can understand why some people 'switch off'



- I have a yearning to say it could be just a beat up, I wonder if I am not just reading all the bad stuff and being led astray

- 
- A person with curly hair and sunglasses, wearing a red shirt, is holding a large cardboard protest sign high above their head with both arms. The sign has the words "an EMERGENCY" in red, "needs" in black, and "URGENT" in blue. The word "action" is partially visible at the top of the sign. The background is a clear blue sky. In the top left corner of the slide, there is a small orange horizontal bar.
- When we look at the facts and evaluate the upside and downside risks there is no getting out of the fact, we need to change at Emergency pace.



If we get this Wrong

- Human extinction is not ridiculous

Whatever it takes

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Germany is currently confronted by the big question of putting principles in front of economic growth with regards to Russian Gas. A sudden shut off gas could cost them 12% of GDP!!



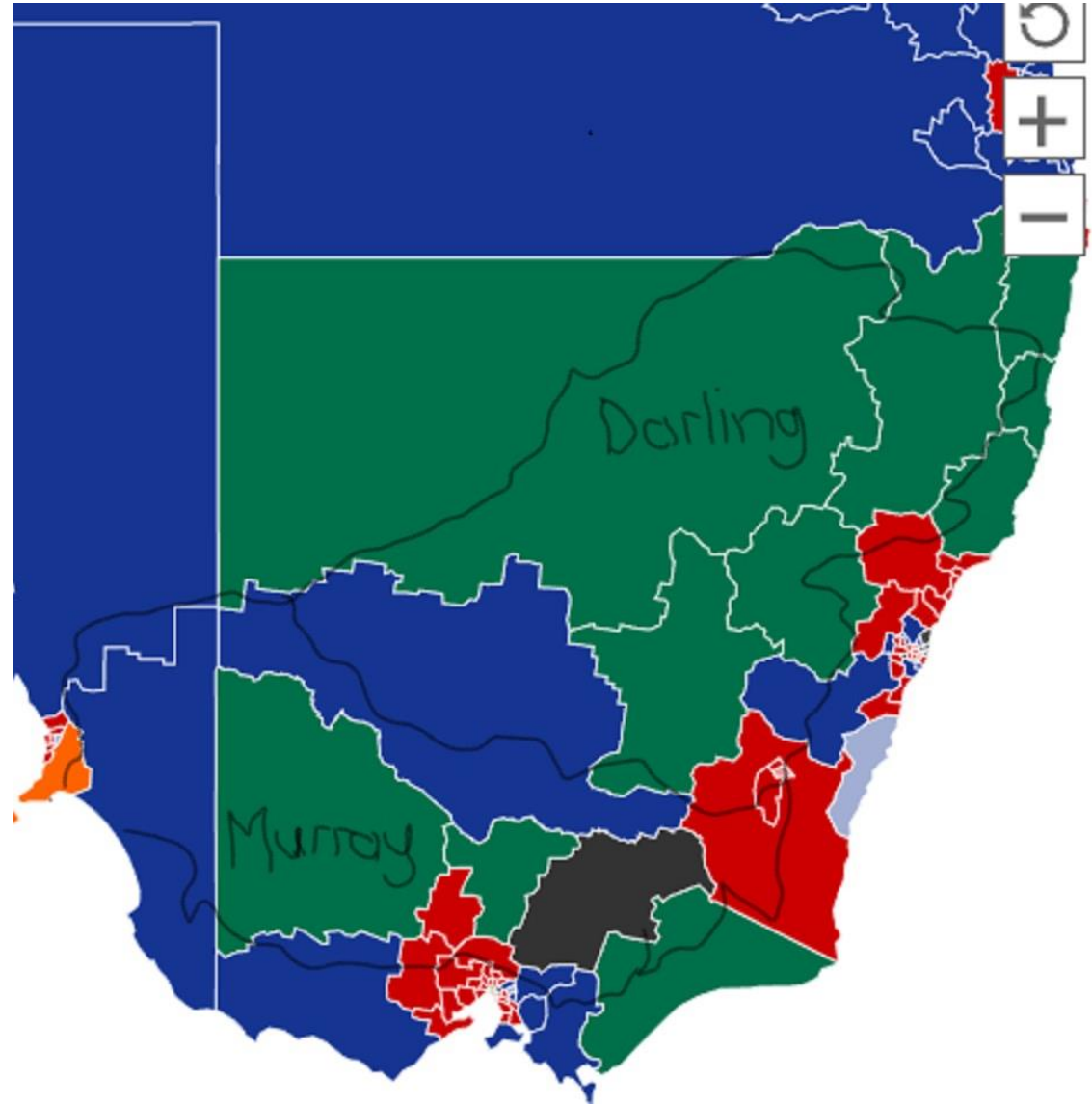
There are no winners without drastic climate action.

Climate Courage Required

- This is not simple
- Not pleasant
- Not Going away.



Within our social groups, our view of the world is greatly influenced by our peers.



If it is such a big deal then why are the polies playing games.

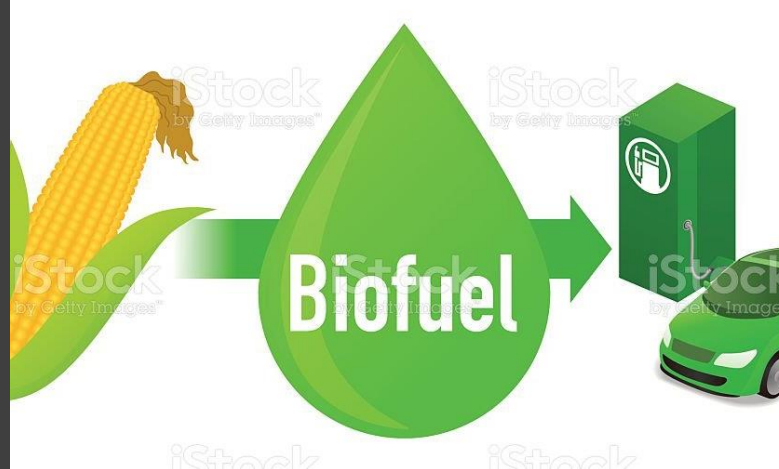
- We could say that well meaning people have been trying to protect us, but I tend to think they are just following the votes.
- It is a political reality that there have been votes in denial.

We are out of step with broader community.

- Need for social license
 - Only 29 % of people live rural and regional Most of them are not directly involved in farming.
 - Only 2.5% work in Ag
- At risk of developing into Polarized groups
- There is lots of work to do developing clear pathways toward net zero

Social License

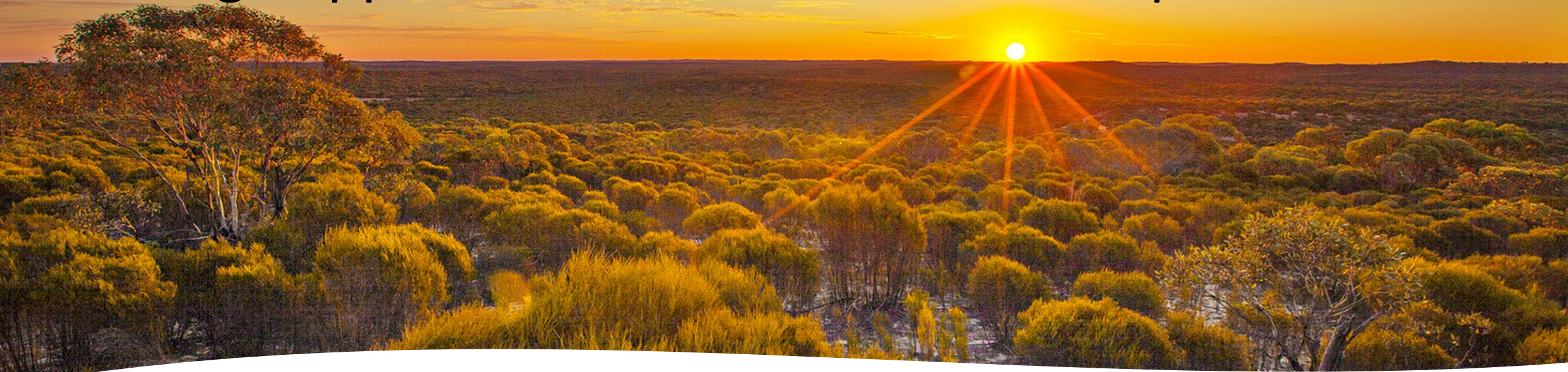
- Social license, or social license to operate – is a term that has been in usage for almost 20 years.
- At its simplest, it refers to the acceptance granted to a company or organization by the community.



Land Use Competition

- Rare earths and other minerals used in electrification of nearly everything
- Reforestation and Carbon sequestration
- Varying crops like Hemp to replace building products
- Biofuel
- Solar farms
- Transmission lines

Huge opportunities for food and fibre production



○ Big changes in the way we work and live.

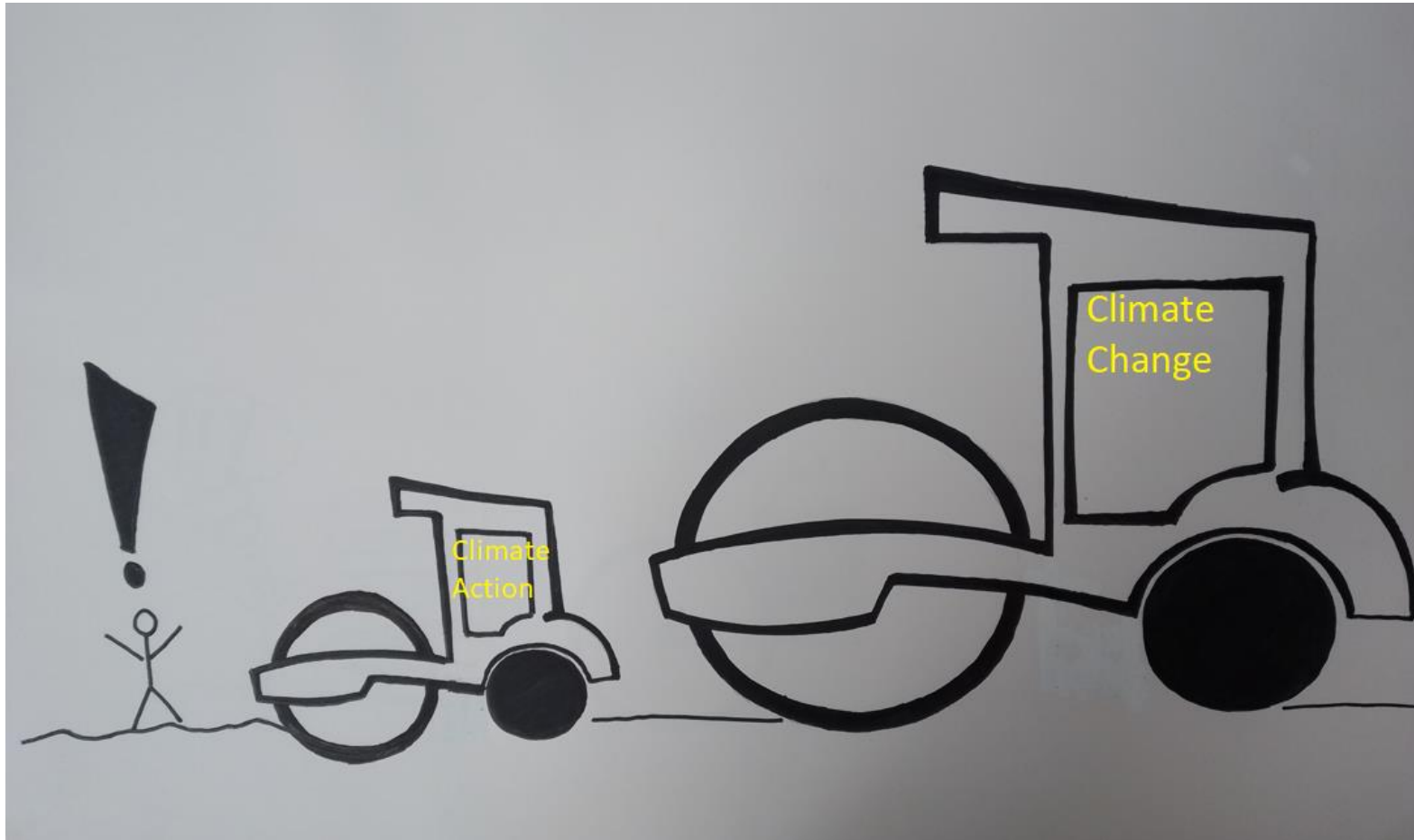
- Water security
- Changing climate
 - Varying competitive positions for produce.
 - Higher storm risk
- Tighter Regulatory control
- Changing relative input costs
- As carbon pricing directly or indirectly works its way into all aspects of our lives.
 - The more directly the better it will be much more accurate.

A group of approximately ten people, including men and women of various ages, are gathered in a field of young green plants, likely a crop field. They are dressed in casual outdoor attire, including jackets, hats, and boots. Some are holding papers or small objects, suggesting a field study or a practical demonstration. The background shows a line of trees under a cloudy sky.

We need engagement..

- It has never been more important than now for the farming and rural communities to engage in climate action planning.
- we need engagement at farm level
- The input from people at the coal face with boots on the ground will be critical. There is huge global and national momentum to tackle this problem, action is guaranteed to accelerate.

Climb aboard the steam roller or go under it.



Thanks for
listening
I appreciate
its not the
most fun
topic.

- Questions?

