



In May 2019 a Twitter chat among farmers about climate change and WA ag led to the formation of the WA Climate Solutions Working Group, which by September had blossomed into the WA Climate-smart Ag Collective, now known as **AgZero2030**.

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### *AgZero2030:*

- 1) *is committed to supporting WA ag to be part of the climate solution by being carbon neutral by 2030,*
  - 2) *will share stories of the diverse range of profitable climate-smart ag practices in WA,*
  - 3) *welcomes and encourages good climate policy that will benefit Western Australia.*
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**Why?** To help create the most prosperous life for rural WA possible, well into the future.

**Who?** AgZero2030 is a growing movement of ag, ag supply chain, and NRM people and organisations focussed on implementing effective, inspiring climate solutions that are relevant to us. We know that climate solutions can save money and build resilience while also contributing to global efforts to hold global warming to 1.5C.

**How?** AgZero2030 is *strictly non-partisan* and non-prescriptive. The movement is supported by volunteers, and our work so far has been supported by DPIRD, Farmers for Climate Action and the Grain Industry Association of WA.



AgZero2030 members know that climate change – caused by only 1C global warming so far – has affected WA agriculture and exacerbated our natural climate variability. We’ve adapted so far. Many primary producers are pursuing climate-smart agriculture, aiming to **sustainably increase productivity and system resilience while reducing greenhouse gas emissions**. It’s good for business.

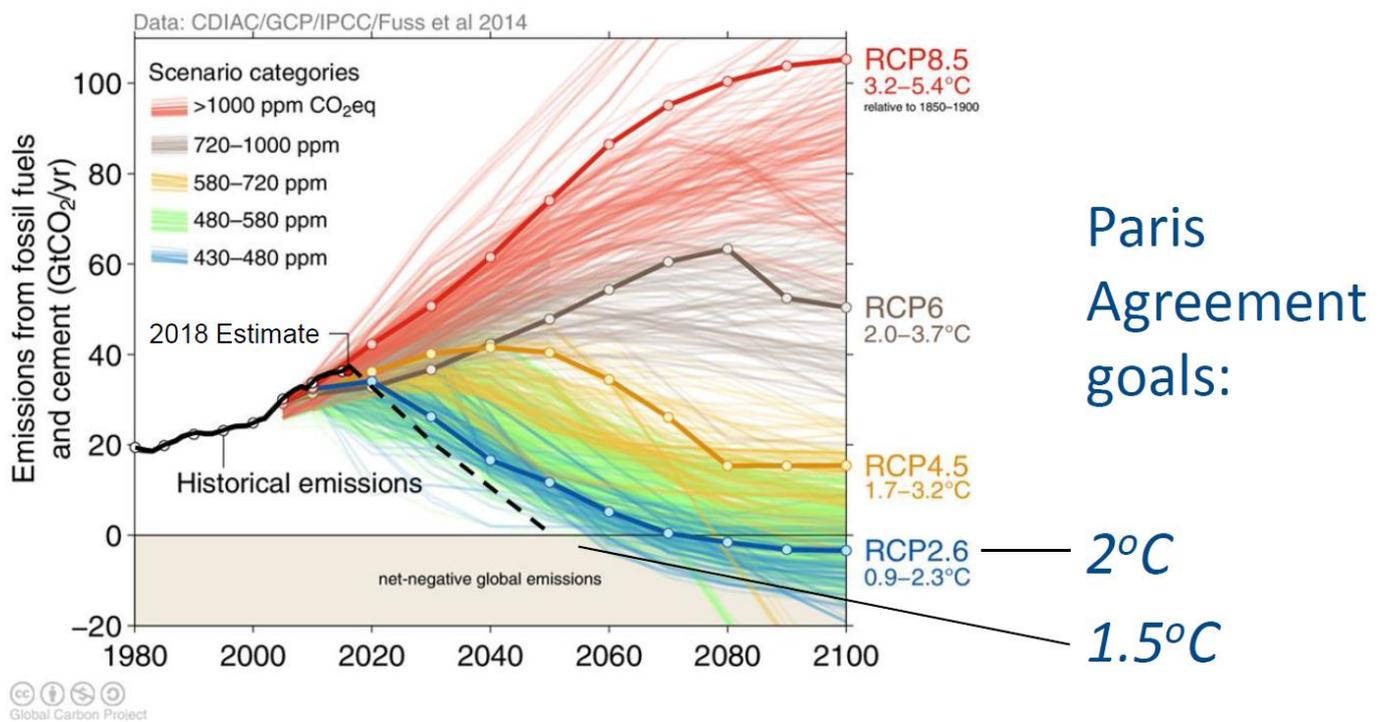
We want to further strengthen our sector’s knowledge of climate change and solutions, build our sector’s adaptive capacity to prosper into the future with projected climate change and consumer expectations, and **find and take up the opportunities in climate solutions**.

# Our Creating Climate Solutions in WA Agribusiness Forum

On 3 Sep 2019 we held the **Creating Climate Solutions in WA Agribusiness Forum** at the UWA Club with sixty smart & well-connected WA ag leaders. After hearing from our presenters and energetically participating in the workshop that gave birth to our three goals, attendees chose to join the movement and work on the goals in their own spheres of influence, with the ongoing support and inspiration of the movement.

Major points from the forum are below, with a brief summary of the speakers' presentations on the following pages.

## Australian National University Emission trajectories and temperature



ANU Professor Mark Howden said that greenhouse gas (GHG) emissions are still rising (globally, nationally and in WA) and that the world may reach 1.5C warming as early as 2026. Earlier, WA Chief Scientist Professor Peter Klinken had said that the general public hasn't grasped what the magnitude of 1.5C means. Mark said we are currently heading towards the top of the red curve in the graph above - up to 5C heating. He said the last ice age was about 5-6C cooler, and asked us to reflect on the scale of the change in the opposite direction. *If the world meets its commitments under the Paris Agreement, we will only meet RCP6, which means warming of up to 3.7C. Mark informed us that...*

*...for a chance to limit global warming to 1.5C the world has to have net zero greenhouse gas emissions by 2050.*

*It is a challenge but also an opportunity for agriculture.  
Instead of seeing it as a negative, make it work for us.  
There is huge opportunity if we want to grab it.*



**Oral McGuire** welcomed us all<sup>1</sup> to Wadjuk Noongar country. He told us how Aboriginal people were agriculturalists, way past being hunters and gatherers, and were spiritual custodians of the land. There is ongoing Aboriginal connection and commitment to land management, agricultural, forestry sectors and the sea. He spoke of engaging Aboriginal people back into our businesses and industries on Aboriginal land.



AgZero2030 chair, broadacre farmer and agronomist **Simon Wallwork** welcomed us. He said agriculture is a science based-discipline and asked if we're ready to respond to market demands about how we're addressing climate change. He referred to the recent IPCC report on climate change and land including ag's part in solutions ([www.ipcc.ch/srcccl/](http://www.ipcc.ch/srcccl/)), and referred to industry research bodies' and associations' work on solutions. This forum aims to open up the conversation and get WA ag on the front foot.



The **Hon Alannah MacTiernan**, Minister for Regional Development; Agriculture and Food; Minister assisting the Minister for State Development, Jobs and Trade formally opened the forum. She said that addressing climate change is a complex problem that needs a systems approach, including knowledge and clear communication on the science around climate-smart ag practices. She said it is fantastic to have a farmer-led group indicating where to go. NB: The Minister has subsequently reiterated her support for the WA Climate-smart Ag Collective, now known as AgZero2030.



Chief Scientist of WA **Professor Peter Klinken** spoke about the causes of climate change, some of its global and local impacts, and said the science has long been clear. The world is hurtling towards 1.5C much sooner than expected ([www.ipcc.ch/sr15/](http://www.ipcc.ch/sr15/)), but the catastrophic consequences of 1.5C to 2C hasn't really hit the general public. He applauded the attendees and said that each one of us has to do something. Everything is connected, the ecosystems, the spirit of this place. We only have one home, let's look after this remarkable place we live in.



ANU Climate Change Institute Director and Vice Chair IPCC Working Group II **Professor Mark Howden** said that average global temperatures have risen over 1C already (about 1.5C over land), and we're likely to reach 1.5C by 2040 *and perhaps as early as 2026*. WA temps keep going up. Extreme temperatures are increasing almost everywhere. Rainfall changes in WA are variable: increases in the north, decreases in the south west, changes in seasonality. Annual runoff is decreasing. WA emissions are approx. 17% of national total. WA ag emissions are approx. 11% of the WA total (not including all food system emissions). Land use change sinks approx. the same size as agricultural emissions. He said...

*There are opportunities to reduce the emissions and increase the sinks from ag/food, hence being part of the climate solution.*

*There are many opportunities to adapt to climate change, which are often extensions of existing practices.*

*These opportunities are often win-wins with reducing GHGs and other goals.*



**Charlotte Turner**, Minter Ellison's Climate Risk Governance Team Associate, said climate change has evolved from a purely 'ethical, environmental, non-financial' issue, to one that presents material risks and opportunities within mainstream investment horizons and political cycles. Capital markets and regulators are on board, so political 'beliefs' are becoming irrelevant. Financial and legal imperatives underpin proactivity in both emissions reduction and adaptation. Climate related risks include physical risks, economic transition risks (market impacts driven by policy and regs, tech, social preferences & market expectations) and liability & insurance consequences. Finance opportunities for the ag sector include bonds & loans (green and SDG (sustainable development goals)); climate-linked mortgages; positive incentive facilities (sustainability-based margin adjustment mechanisms).

<sup>1</sup> In addition to the speakers and working group, the forum participants were Alex Gardner, Professor, School of Law, UWA, Centre for Mining, Energy and Natural Resources Law; Andrew Weinert, Niche Agribusiness; Annabelle Bushell, Grower Group Alliance; Anthony Fitzgerald, Alterra; Barb Howard, leadership consultant; Brad Jones, farmer, Bungulla; Brendon Grylls, consultant; Clayton Nelson, Austral Fisheries; Colin de Grussa, WA MLC, WA Nationals; David Minkey, WANTFA; Eamonn McCabe, DPIRD; Florence Soriano, Dept Water & Enviro; Greg O'Brien, Bankwest; Heather Brayford, DPIRD; Jessie Davis, WAFarmers director; Jim Trandos, Vegetables WA; John Noonan, Curtin Uni; John Shannon, Vegetables WA; Julianne Hill, GRDC Regional Cropping Solutions Network; Justin Wolfgang, RegenWA & Perth NRM; Karen Barlow, DPIRD; Kathryn Slater, ConocoPhillips; Leon Ryan, farmer, Nuffield scholar; Louise Freytag, Curtin Uni student; Melanie Strawbridge, DPIRD; Nicola Kelleher, CWA, Cloverfield Beef; Norm Trethewey, Weather Index Solutions; Philip Gardiner, farmer, former WA Nats member; Ray Wilson, Carbon Neutral; Richard George, DPIRD; Ric Newman, farmer/Avongro; Rick Fletcher, DPIRD; Rob Sands, Farmanco; Ross Kingwell, UWA, AEGIC; Shane Sanders, Agvise; Steve Carr, Aglime; Stuart McAlpine, farmer, Wide Open Ag; Tammy Negus, dairy; Tim Wiley, Tierra Australia; Tom Puddy CBH sustainability/innovation.



CEO of Farmers for Climate Action **Verity Morgan-Schmidt** spoke about the growing and diverse movement of farmers, agricultural leaders and rural Australians working to ensure farmers are a key part of the solution to climate change. She spoke of the ability of farmers to help break the partisan nature of climate change discourse, the importance of integrating ag into the climate solutions narrative, and making agriculture’s voice stronger on the solutions front (without greenwashing). She said if you’re in agriculture and you’re still standing, you’re already adapting, so what are your next steps? Are you still adapting, acknowledging risks, thinking differently? How do we build climate resilience into every decision we make? She said the untold story of climate change is social capital being depleted in regions as farms adjust, and school populations and services decline in the regions. This is about regional resilience so we farmers need to be at forefront of solutions. Do start climate conversations and partnerships, but don’t wait for everyone to come along.



Futurist Professor Ray Wills, Managing Director of Future Smart Strategies, Expert-in-Residence at the CORE Innovation Hub, Adjunct Professor UWA School of Ag and Env spoke about the accelerating rate of innovation (and often decreasing cost) in climate solutions, including ones relevant to ag: energy efficiency, renewable energy, batteries, Internet of Things, sensors, ag tech, smart farms, robotics, predictive data analytics, farm management software, vertical farming. With lower rainfall and higher temps impacting everything we grow, and climate zones changing, growing is not over, but what will we grow? Adapt the cropping system, think outside the box.



Farmer and Nuffield scholar **Dylan Hirsch** spoke about financial tools to help us buffer the effects of the increasing volatility in our already hot and variable climate, to help us be better long-term business people and managers of the environment. There was multi-peril insurance, there is managing price risk through hedging, and he explained his use of rainfall derivatives (where an insurance company will hedge them in a dry year and they pay a premium in a better rainfall year). Dylan also raised interesting points about the mental health benefits of managing volatility well.



Outback Carbon co-founder **Kent Broad** talked about understanding what your individual/business carbon emissions are and exploring opportunities for complementary income with carbon farming and providing offsets for other organisations’ emissions. He summarised carbon markets in Australia, including the federal Governments’ Emissions Reduction Fund/secondary market for carbon credits, and voluntary markets.



Our MC for the day was director of Lush the Content Agency and ABC Radio Perth’s **James Lush**. He ran a workshop highlighting the importance for our movement to identify our common goals/messages (achieved, listed on page one) and communicate them effectively and consistently through audience-focussed human story-telling. If the public keeps hearing these amazing problem-to-solution stories (about farmers who are committed to a carbon budget being part of the solution to climate change) they will say “wow that’s amazing, how can I support you to do that?” **TRUTH** makes good, appealing stories that media will take up: **Topical** (farmers are always topical: everyone eats because of our work), **Relevant** (what’s in it for the audience), **Unusual** (make it memorable), **Trouble** (the spicy stuff/problem), **Human** (translate the big stuff to the community level and the individual, eg, how health links with ag, how community links with ag. Use language of “us” (not them vs us)).



Farmer/rural leader **Sue Middleton** wrapped up the day by thanking the forum participants, supporters and volunteers for their contributions to the day. She invited everyone to participate on behalf of ag in the state government’s public consultation on the WA climate strategy (<https://consult.dwer.wa.gov.au/climatechange/issues-paper/>). She emphasised that all political parties were invited today, and that AgZero2030 is strictly non-partisan, and we want the state and federal government’s support. Sue invited everyone to go home and think of at least one more crucial, influential person to invite to be involved in this movement, and asked if anyone has an organisation that can make any contribution, whether volunteerism or cash.

*The forum was bravely fact-facing, inspiringly solutions-focused and refreshingly collaborative.*

**Committee**

- Simon Wallwork** (AgZero2030 Chair), farmer/agronomist
- Alan Meldrum**, GrainGrowers Ltd
- Christie Kingston**, farmer/Farmers for Climate Action director
- Cindy Stevens**, farmer
- Dale Park**, farmer/Farmers for Climate Action director, former President of WA Farmers
- Dylan Hirsch**, farmer, Nuffield Scholar
- Kent Broad**, Outback Carbon
- Larissa Taylor**, CEO Grain Industry Association of WA
- Michael Robertson**, CSIRO
- Rob Grima**, Planfarm
- Ross Woodhouse**, Dairy farmer
- Sue Middleton**, farmer, AgDots
- Tony York**, farmer/National Farmers Federation, former President of WA Farmers
- Wayne Pech**, farmer

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**Join** If you have anything to do with Western Australia’s ag supply chain and/or natural resource management, you’re invited to join AgZero2030. join at [www.AgZero2030.org.au](http://www.AgZero2030.org.au) or email us.