

# OFFICIAL FEEDBACK FORM

<b>DIALOGUE DATE</b>	Tuesday, 23 March 2021 14:00 GMT +11:00
<b>DIALOGUE TITLE</b>	Farmer-Led, Science-Based Greenhouse Gas Mitigation: Strategies for Australia and Abroad
<b>CONVENED BY</b>	Australian Centre for International Agricultural Research (ACIAR), The Crawford Fund
<b>DIALOGUE EVENT PAGE</b>	<a href="https://summitdialogues.org/dialogue/3221/">https://summitdialogues.org/dialogue/3221/</a>
<b>DIALOGUE TYPE</b>	Independent
<b>GEOGRAPHICAL FOCUS</b>	Australia, No borders

The outcomes from a Food Systems Summit Dialogue will be of use in developing the pathway to sustainable food systems within the locality in which they take place. They will be a valuable contribution to the national pathways and also of interest to the different workstreams preparing for the Summit: the Action Tracks, Scientific Groups and Champions as well as for other Dialogues.

# 1. PARTICIPATION

## TOTAL NUMBER OF PARTICIPANTS

95

## PARTICIPATION BY AGE RANGE

0-18

19-30

31-50

51-65

66-80

80+

## PARTICIPATION BY GENDER

Male

Female

Prefer not to say or Other

## NUMBER OF PARTICIPANTS IN EACH SECTOR

30 Agriculture/crops

Fish and aquaculture

20 Livestock

Agro-forestry

20 Environment and ecology

10 Trade and commerce

Education

Communication

Food processing

Food retail, markets

Food industry

Financial Services

Health care

Nutrition

15 National or local government

Utilities

Industrial

Other

## NUMBER OF PARTICIPANTS FROM EACH STAKEHOLDER GROUP

Small/medium enterprise/artisan

10 Large national business

5 Multi-national corporation

Small-scale farmer

10 Medium-scale farmer

20 Large-scale farmer

5 Local Non-Governmental Organization

5 International Non-Governmental Organization

Indigenous People

10 Science and academia

Workers and trade union

Member of Parliament

Local authority

15 Government and national institution

Regional economic community

United Nations

International financial institution

15 Private Foundation / Partnership / Alliance

Consumer group

Other

## 2. PRINCIPLES OF ENGAGEMENT

### HOW DID YOU ORGANIZE THE DIALOGUE SO THAT THE PRINCIPLES WERE INCORPORATED, REINFORCED AND ENHANCED?

This workshop, "What Can Farmers Do? Farmer-led, science-based greenhouse gas mitigation strategies for Australia and abroad," was organised to be an interactive event that allowed participants to reflect on actionable solutions that are already being developed and used by Australian farmers. As Australia's first Independent Dialogue, the workshop provided an entry-point for Australian farmers to engage in the global conversations about food systems that the UN Food Systems Summit was bringing to the world's attention. The Dialogue was organised in a way that incorporated and reinforced the principle of engagement. The event brought together diverse voices from across the agricultural sector to present diverse solutions, and allowed participants to ask questions to explore these innovations further.

### HOW DID YOUR DIALOGUE REFLECT SPECIFIC ASPECTS OF THE PRINCIPLES?

The Dialogue recognised the complexities of food and agricultural systems, and panelists invited to speak represented diverse viewpoints. By bringing together many voices, the Dialogue sought to encourage building on and complementing the work of others. Many stakeholders were involved in this Dialogue, and the organisers set a respectful and inclusive tone for the event, which allowed participants to speak freely and comment on each others' ideas in a way that built camaraderie and trust.

### DO YOU HAVE ADVICE FOR OTHER DIALOGUE CONVENORS ABOUT APPRECIATING THE PRINCIPLES OF ENGAGEMENT?

This Dialogue was structured appropriately to the Australian context. Following advice from the UN Food Systems Secretariat, Dialogue Convenors should interpret the Principles of Engagement in a locally-specific and culturally-relevant way to stimulate the best discussion possible.

# 3. METHOD

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The outcomes of a Dialogue are influenced by the method that is used.

**DID YOU USE THE SAME METHOD AS RECOMMENDED BY THE CONVENORS REFERENCE MANUAL?**

Yes

No

As this was Australia's first Independent Dialogue, some of the methods as recommended by the Convenors Reference Manual were inadvertently not fully adhered to. The Convenors learned from this Dialogue and refined engagement methods in subsequent Dialogues. This Dialogue brought together a number of panelists who presented to a group of participants about various agricultural innovations that could transform food systems. The participants were engaged through a hybrid format, with some people listening in the room, online in real time, and many more able to watch the event recording online afterwards. Participants were able to ask questions of the panelists, and engaged the content material through several poll questions that were shared through Facebook Live as the event was being streamed. While this Dialogue did not have Discussion Groups as part of the event, all participants were able to share their thoughts through an event chat. The panelists, who represented several stakeholder groups, were able to safely express differing opinions and had robust conversation that allowed points of divergence and convergence to surface.

# 4. DIALOGUE FOCUS & OUTCOMES

## MAJOR FOCUS

Australia has taken a leading role in participating in the UN Food Systems Summit Action Track 3 Working Group. The impact of boosting nature-positive production on sustainably transforming food systems is of great important to many Australian farmers, and this Dialogue primarily focused on exploring Action Track 3.

The Dialogue was convened by the Crawford Fund and the Australian Center for International Agricultural Research (ACIAR) to demonstrate emerging innovative practices to mitigate greenhouse gas emissions by farmers and to showcase implementable strategies in Australia and the world.

The Dialogue was conceived as a way to bring together leaders in agricultural innovation and science to discuss ways that Australia can boost nature-positive production. Australia chairs the Global Research Alliance (GRA) on Reduction of Greenhouse Gases in 2021 and is committed to supporting global efforts towards reducing emissions. Farmers in Australia are leading the charge in reducing emissions on-farm, based on sound science, and are demonstrating a way forward for policy makers to assist in achieving their objectives.

### ACTION TRACKS

- Action Track 1: Ensure access to safe and nutritious food for all
- Action Track 2: Shift to sustainable consumption patterns
- Action Track 3: Boost nature-positive production
- Action Track 4: Advance equitable livelihoods
- Action Track 5: Build resilience to vulnerabilities, shocks and stress

### KEYWORDS

- Finance
- Innovation
- Human rights
- Women & Youth Empowerment
- Policy
- Data & Evidence
- Governance
- Trade-offs
- Environment and Climate

## MAIN FINDINGS

This report seeks to summarise views and perspectives of event participants and does not represent the views of either convening organisation. This report shares the organisations of the speakers, as this event was public and a full program and video recording is still available (see relevant links).

The main findings reported here are drawn from the presentations of speakers who represented the following organisations: The Crawford Fund, the National Farmers Federation, the Australian Centre for International Agricultural Research (ACIAR), Rennylea Pastoral Company, Jigsaw Farms, Resource Consulting Services, the Primary Industries Climate Challenges Centre at the University of Melbourne, the Australian Government Commonwealth Scientific Industrial and Research Organisation (CSIRO) and Department of Foreign Affairs and Trade (DFAT).

It is important to note that many topics were covered and that speakers from the above organisations may hold differing views on the findings presented below.

Main conclusions are presented below through the lens of shared sentiments towards ambition, challenges, and opportunities for reducing greenhouse gas emissions in agriculture.

**Ambition:** Australian farmers and industry stakeholders share strong ambitions for the agricultural sector to reduce greenhouse gas emissions.

- There is an appetite for investment in agricultural innovation that will increase production in a sustainable way. The National Farmer's Federation has a goal of creating \$100 billion dollars in output by 2030 but achieving that at the same time as trending towards carbon neutrality by 2050.

- Change needs to be driven from the production end, and industry should always take an evidence-based approach when considering trade-offs between economics and environment. Many groups are forming around this drive to consider climate change when planning agricultural production pipelines, and allowing people to form partnerships around shared interests and goals will likely further increase ambitions.

- There is agreement that all change and innovation should happen with an inter-generational view to improving not only profitability and productivity, but also sustainability of agricultural production.

- In order to bolster resilience and help guarantee future productivity, there must be ambitious goals around rebuilding elements of the natural environment that supports agriculture. Two such proposed measures are rebuilding soil health and re-vegetating landscapes, which will require action on grand scales to make a difference.

- Private companies are often setting the bar higher than governments with regards to increasingly ambitious emissions reduction targets. Across the world, tackling climate change is seen as a global problem which requires increasingly ambitious targets to address it. This means that to stay competitive in a global marketplace, increased ambition is needed to bolster emissions-reducing actions.

**Challenges:** There are still many challenges to reducing greenhouse gas emissions and boosting nature-positive production, particularly to do so in cost-effective and scalable ways.

- A major challenge that emerged during this Dialogue was the ability to measure baseline figures and changes due to interventions. For example, while soil carbon sequestration was considered an opportunity to lower emissions, one challenge that remains is the current lack of quick, affordable, reliable, and user-friendly soil carbon measurement. This makes it difficult to encourage widespread implementation without a way to track mitigative impacts over time.

- The climate of Australia is very variable, which makes it difficult to recommend one technique across all farming regions. Farmers must be responsive and adaptive in their own local contexts, but this makes it more difficult to share all learnings across the country.

- There is the trade-off between sustainable production that reduces emissions while still producing enough to provide everyone with access to safe, nutritious food. This is a challenge both in Australia and abroad, where agriculture provides a real opportunity lift smallholders and others out of poverty.

**Opportunities:** The Australian landscape and R&D into emissions-reduction has also presented many opportunities for the sector to reduce on-farm emissions. There are many technological solutions and methodological innovations that can help boost nature-positive production.

- When systems are re-evaluated through an entire lifecycle, it allows for potential solutions to become much more impactful. For example, there is a possibility to reduce methane emissions from livestock by 80% (compared to 20%) through early life programming in addition other technologies.

- There is an increasing focus on creating and using more points of evidence to determine the best interventions. This is leading to increased efficiencies in production and lower emissions. For example, lifecycle data about cattle is allowing producers to lower the kilograms of CO2 emission per kilo of beef or per hectare of production, and therefore increasing efficient production across other measures as well.

- Through forums like the Food Systems Summit, there will be opportunities to share expertise and technologies across the region and the world, allowing innovation to be scaled across contexts. When scaling solutions, the enormous diversity of production systems must be recognised and accounted for with changes across geographies and time-scales to make innovations applicable to local contexts.

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## OUTCOMES FOR EACH DISCUSSION TOPIC

As this Dialogue was not structured to include Discussion Groups, the Discussion outcomes presented here reflect the engagement from participants who engaged with the online discussion and Q&A session that followed the presentations and contributed to the panel discussion.

Those who were engaging with the event in real time were asked to participate in a number of polls. These polls were asked at various times during the event, and therefore may not capture respondents' views after having listened to all of the information shared by all speakers.

The first question asked what participants thought was the most significant barrier for farmers to invest in greenhouse gas reductions. Many people thought the primary barrier was a lack of knowledge or access to technologies that reduce emissions, as well as the ability to track and measure emissions effectively. A notable number of respondents (about 20%) also thought that lack of financial capacity and/or confidence in markets was a barrier to reducing on-farm emissions. Only 20% of respondents thought that a lack of commitment or community attitudes were preventing investment in mitigation.

The second question asked respondents to share what they considered to be a priority on-farm practice that could mitigate agricultural emissions. Almost half of respondents agreed that agroforestry and tree-planting on farm should be a priority activity, closely followed by 40% who thought that conservation agriculture, which could improve pasture and soil health, should be the main priority. A small number of respondents selected innovative feed for livestock and better breeding practices as priority on-farm practices for mitigation. The consensus among respondents was not reflected in the priorities shared by earlier speakers who advocated for all of these practices.

The third question asked respondents to reflect on the barriers to achieving increased soil carbon levels. Most respondents were concerned with ensuring longevity of higher soil carbon levels and with sequestering carbon deeper in the soil profile. A smaller number of respondents thought the greatest barriers were related to being able to measure carbon-soil changes and the relevant issues of carbon pricing and carbon markets. These secondary concerns may be related to concerns raised that lack of financial capacity and/or confidence in markets can be a barrier to reducing on-farm emissions.

The fourth question asked respondents to share their thoughts about the most effective way to reduce methane emissions from livestock systems. Many respondents agreed that R&D into diet moderation or feeds and forages that improve production and reduce methane was very important. However, a similar number of respondents thought that incentives for farmers to adopt solutions was the key missing element. This suggests that while farmers consider R&D and innovation to be important, the technological solutions must be paired with policies and incentives that will translate research into action.

The fifth question asked respondents to reflect on whole-of-lifecycle approaches and how they thought production practices could help to lower emissions. Almost all respondents agreed that extending new agronomic practices and creating new markets (and expanding market incentives) were the best way to boost nature-positive production practices that could lower emissions. Almost no respondents thought that purchasing novel cultivars, machinery, or crop nutrient inputs, or regulating on-farm practices was a preferred avenue to sustainable production.

The final question asked about the best strategies for guiding Australia's role in supporting reduction in agricultural emissions in developing countries. There was equal support for several approaches, including supporting more collaborative research and development, focusing on capacity building, and demonstrating opportunities to integrate carbon credits into farming systems.

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## AREAS OF DIVERGENCE

A wealth of information was shared and discussed during this Dialogue. Many of the innovations discussed for Australian agricultural production would be relevant to other contexts. However, not all participants of the Dialogue agreed on the use of all innovations presented, and there were some differing perspectives on the priorities needed to support nature-positive production methods.

Full presentation slides from each speaker can be found through the 'Event details and slides' link below, and a full recording of the event is also available.

The clear agreement between all speakers was that the food system is integral to solving many of the other complex challenges facing the world. Many Australian farmers share ambitious goals and plans for reducing greenhouse gas emissions while continuing to improve efficiency and scale up agricultural production sustainably. While there is no 'silver bullet' solution for how to do this, there is a great arsenal of Australian innovation upon which farmers can draw when committing to ambitious action.

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# ATTACHMENTS AND RELEVANT LINKS

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## ATTACHMENTS

- **Agenda**  
<https://summitdialogues.org/wp-content/uploads/2021/08/Agenda.pdf>

## RELEVANT LINKS

- **Video recording**  
<https://www.crawfordfund.org/news/farmer-led-science-based-greenhouse-gas-mitigation-strategies-for-australia-and-abroad/>
- **Event details and slides**  
<https://www.crawfordfund.org/news/now-available-online-workshop-what-can-farmers-do-farmer-led-science-based-greenhouse-gas-mitigation-strategies-for-australia-and-abroad/>
- **Poll results**  
<https://www.crawfordfund.org/wp-content/uploads/2021/03/poll-results.pdf>