

MEDIA RELEASE

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CAN WE FEED THE WORLD WITH NET ZERO EMISSIONS? MAYBE

One of Australia's most influential climate scientists, and a leader in carbon farming research and accounting, believes that an integrated land management approach with a mix of environmental, social, and governance (ESG) criteria is a 'best bet' in striking a much-needed balance between biodiversity conservation, food security and greenhouse gas (GHG) emissions.

Prof Richard Eckard, Professor of Carbon Farming at the University of Melbourne and Zero Net Emissions Agriculture CRC Program Leader will address Australia's key food security event, the Crawford Fund annual conference, *Progress and Prospects for Climate-Resilient Agrifood Systems: Actionable Recommendations for Policymakers and Practitioner* to be held in Parliament House, Canberra on 11-12 August.

Speakers from around the globe and Australia will offer their solutions for transforming agrifood systems in response to climate change, addressing the trade-offs between food production and net-zero targets, pursuing sustainable intensification, and promoting inclusivity and equity.

"There are critical trade-offs between food security and net zero emissions and finding the sweet spot between biodiversity conservation, food security and GHG mitigation will not be easy," said Prof Eckard, whose research focuses on carbon farming and accounting towards carbon neutral agriculture and options for agriculture to respond to a changing climate.

"Agriculture produces between 12 and 14% of global GHG emissions, excluding transport and processing. While some agricultural systems can achieve net zero GHG emissions, and there are options to reduce emissions by more than 50% in other select cases, few are cost effective in their own right. This challenges adoption by farmers, and some options are in conflict with food security - arguably the most legitimate reason for GHG emissions."

"There's good news on options to reduce enteric methane by more than 80% and estimates show that improving nitrogen use efficiency can reduce nitrous oxide emissions by over 50%. However, few options are relevant to extensive or subsistence agricultural systems."

"There is a range of probabilities around reaching net zero. For example, carbon neutral almonds or viticulture is quite achievable, but extensive livestock in northern Australia it is almost impossible."

"Current reliance by the large industrial emitters on the land sector to provide them with cheap offsets is questionable, as agriculture on its own will struggle to meet its stated value chain targets," he told over 300 experts, policymakers, researchers, and students.

"While some agricultural systems can achieve net zero GHG emissions, there are inevitable GHG emissions associated with agricultural production. However, the land use sector also manages significant natural resources for us all."

"The future lies in striking a balance between biodiversity conservation, food security and mitigation in a more integrated land management approach mixing environmental, social, and governance criteria," he concluded.

