# 69th Annual Conference of The Australasian Agricultural & Resource Economics Society

Schedule

# Tuesday, 11 February, 2025

08:30-09:00 Conference Regisration Desk, Grand Chancellor

AARES Conference Registration Desk Open [8:30AM to 5:30PM]

08:30-09:00 Hotel Grand Chancellor

Tea and Coffee on Arrival

09:00-10:30 Chancellor 1, LVL0

REEF ECONOMICS & IMPROVED MGMT - Workshop Session 1

Sponsors: Queensland Government Convenor: John Rolfe , CQUniversity

Time: 9:00AM - 5:00PM

Overview: The Great Barrier Reef (GBR) in Australia is the focus of substantial effort to improve protection and resilience, including from water quality impacts from agriculture and other land uses. On the marine side the challenges include identifying where conservation, restoration and other protection measures should be focused, given the scale of the system and the complexity of pressures on it. On the terrestrial side the challenges are largely around identifying cost-effective solutions to water quality issues from agricultural activities that will be supported by stakeholders.

The 2022 Scientific Consensus Statement that was released in August 2024 identified major gaps in knowledge around the economics of practice adoption, the potential for co-benefits from improved practices to be incorporated into mechanism design, and improving adoption rates through better understanding of social drivers. Economic analysis can provide insights into each of these factors.

For this workshop the potential insights from economics analysis are organized in four sections: • Costing and prioritizing potential water quality solutions • Getting economics into mechanism design • Factors driving adoption • Assessing future issues. The target audience for this workshop are policy makers, researchers and stakeholders in the Great Barrier Reef policy space.

Format: The format of the workshop will be four panel sessions with approximately four speakers each. Each speaker will give a 15 - 20 minute presentation followed by moderated Q&A for 20 minutes and then open Q&A for 30 minutes. The different sessions will be chaired by different stakeholders.

Session 1: Costing and prioritizing potential water quality improvements

Session 2: Getting economics into mechanism design

Session 3: Factors driving Landholder adoption

Session 4. Assessing future options

09:00-10:30 Chancellor 2, LVL 0

# DECARBONISATION / RESOURCES TRANSITION - Workshop Session 1

Convenor: Stuart Whitten, CSIRO Environment

Time: 9:00AM - 5:00PM

Overview: The Australian economy has experienced enormous growth in resources extraction over the past two decades with substantial structural implications for national, state and regional economies. The pressures of building a carbon neutral economy, both globally and nationally, are likely to drive further substantial structural changes over the coming decades. This workshop will focus on how recent resource booms have been experienced at scales from local communities to the national economy, what lessons we can learn to help guide future transitions, and on where, how and why future transitions may differ from those we have experienced in the past.

The objective of this workshop is to explore: - Our understanding of the impacts of recent resources booms on local, state and national economies, including how these have differed by commodity. - Explore the challenges facing the Australian resources sector as Australia, alongside other countries, strives to achieve net zero emissions over the coming decades. - Explore how future transitions may play out differently for communities, states and the nation to those we have experienced in the past. The workshop will timely for traditional AARES attendees and attractive to our Queensland audience given the mining sector is the largest economic contributor to the Queensland economy at \$86.5b (GVA 22/23) and contributes more than 50,000 jobs.

Queensland's economy is also the most exposed amongst Australia's states and territories to the decline in fossil fuel extraction and exports as the global economy transitions towards net zero. Our aim is for workshop attendees to leave with an understanding of the how mining and resource transitions are likely to generate structural changes in local, state and national economy – past, present and future. Participants will leave better informed to consider and contribute to debates around the differential nature of past and future transitions across coal, gas, iron ore and transition minerals.

The workshop will predominantly target professionals who need to understand the likely transition challenges at scales from local to national, including those in state and national governments supporting policy development, consultants keen to understand the state of play, and stakeholders keen to identify sectoral challenges and opportunities.

#### Format:

Session 1 – Setting the scene: Resources transitions past present and future

Session 2 - The Queensland gas and coal boom - what did it mean for local, state and national economies?

Session 3 - The great transition -what does a net zero future mean for Queensland and Australia's resource economies?

Session 4 - Past, present and future - challenges and opportunities for the resource sector

09:00-10:30 Chancellor 5, LVL 0

# FOOD SYSTEMS TRANSFORMATION - Workshop Session 1

Convenors: David Shearer, Australian National University, Risti Permani, University of Queensland and Craig Johns,

University of Adelaide Time: 9:00AM - 5:00PM

Overview: The key objective of the workshop is to build a framework to improve the partnership between research and innovation investors and providers contributing to the food system transformation. A case study approach will be used to investigate current public and private research partnerships to explore factors that influence success and failure. The case studies will be across the value chain, from pre-farm gate, on-farm innovation, through chain management and market engagement. This insight to critical factors will be used to develop a framework to improve future investment partnerships.

Research and development (R&D) has underpinned improvements in agricultural productivity contributing to improvements in global food security. However, there are also downsides with the costs of the global food system estimated at USD19.8 trillion, almost double current global food consumption, valued at USD9 trillion (Hendriks et al, 2021). Addressing these externalities is key to the transformation of the food system. Investment, by both the public and private sector, will be critical in the transformation, but estimates vary. CPI (2023) highlighted three scenarios (FOLU, 2019, UNEDP, 2022 and Thornton et al, 2023) which ranged from USD212B to USD1.3T. The study also identified current level of investment is well below need.

The role of the private sector in the global food system has changed dramatically (Denning, 2023). Today, investment by the private sector in agricultural R&D is greater than that by the public sector in developed economies (Pardey, 2023: Chancellor, 2023). Although there is some evidence that the investment is increasingly oriented towards developing country markets there is little evidence of direct private investment in agricultural R&D in developing countries (Fugile, 2016). In this changing dynamic, the private sector is becoming more crucial as a research and innovation provider and as a key mechanism to sustainably scale innovation. There are many examples, and various approaches, of public investment trying to partner with the private sector to deliver impact, however there does not seem to be a clear approach or framework to maximise the impact of the investment from both the public and private sectors.

Improved partnership between public and private research investors and providers may improve the capacity to address ongoing development challenges, such as food security, address newly important issues including health and nutrition, and also contribute to addressing the impacts of climate change in the agricultural sector, where climate change has reduced productivity growth by 21% since the 1960s (Ortiz-Bobea et al, 2021).

Practitioners working in research and innovation partnerships that engage with both the public and private sector that are seeking ways to improve, and want to contribute to, the co-design, co-production, collective implementation, and impact of their research in the transformation of the global food systems, with a particular focus on developing country food systems. Key learning outcomes will be an improved understanding of current public and private arrangements to fund and implement research focused on food systems transformation along with approach to improve partnerships and impact.

Format: Presentation of case studies, capturing key learnings and formulating this into a potential framework to guide future investment. Speakers would be invited to contribute (and also contribute to a subsequent special issue journal) to both present and discuss, as below, with audience participation open. The main output of this event would be the establishment of a plan to build the framework as described in the objectives as well as commit key authors for the development of the papers (as described below)

Key Topics • Historical overview of public and private sectors have interacted in research and innovation in the global agrifood system – perhaps a focus on food security • The current state of play – globally, a developed country case and a developing country case • What can we learn from the renewables sector • On-farm • In the value chain • What about at the broader food system level • It's not just about technology – finance and policy innovation is critical • What about building capacity to form effective partnerships • Co-design and co-production with the private sector – approaches, costs

and benefits • What does this mean for future challenges – partnerships to lower GHG emissions from global agri-food systems • A framework to enhance partnerships to meet the challenges of transition to a sustainable future

10:30-11:00 Hotel Grand Chancellor

Morning Tea

11:00-12:30 Chancellor 1, LVL0

REEF ECONOMICS & IMPROVED MGMT - Workshop Session 2

Sponsors: Queensland Government

11:00-12:30 Chancellor 2, LVL 0

DECARBONISATION / RESOURCES TRANSITION - Workshop Session 2

11:00-12:30 Chancellor 5, LVL 0

FOOD SYSTEMS TRANSFORMATION - Workshop Session 2

12:30-13:30 Hotel Grand Chancellor

Lunch

13:00-17:00

City Cat Tour on the River

Led by a member of the local organising committee, this trip starts at Hotel Grand Chancellor Brisbane, and takes you on a delightful journey through the city, ending at New Farm, Queensland with a look around historic New Farm Park. The route includes a CityCat ferry ride along the Brisbane River, offering scenic views of the riverbank, bridges, and iconic city spots. The journey covers 9.1 km and will take around 3 hours, allowing you to relax and enjoy Brisbane from a unique perspective, while also getting a bit of exercise as the route includes some walking segments.

13:30-15:00 Chancellor 2, LVL 0

DECARBONISATION / RESOURCES TRANSITION - Workshop Session 3

13:30-15:00 Chancellor 5, LVL 0

FOOD SYSTEMS TRANSFORMATION - Workshop Session 3

13:30-15:00 Chancellor 1, LVL0

REEF ECONOMICS & IMPROVED MGMT - Workshop Session 3

Sponsors: Queensland Government

15:00-15:30 Hotel Grand Chancellor

Afternoon Tea

15:30-17:00 Chancellor 1, LVL0

REEF ECONOMICS & IMPROVED MGMT - Workshop Session 4

Sponsors: Queensland Government

15:30-17:00 Chancellor 2, LVL 0

DECARBONISATION / RESOURCES TRANSITION - Workshop Session 4

15:30-17:00 Chancellor 5, LVL 0

FOOD SYSTEMS TRANSFORMATION - Workshop Session 4

17:00-20:00 Hotel Grand Chancellor

Conference Welcome Reception

Join us for a warm welcome to Brisbane and AARES 2025 at the Hotel Grand Chancellor. Experience the famous Queensland hospitality and get to know your fellow delegates!

19:00-23:00

## **ECR Networking Event**

Sponsors: RAID (Researchers in Agriculture for International Development)

Established as one of the finest function venues in Brisbane, Friday's Riverside is a popular choice for celebrations of all sizes. The private dining room, glamour bar, grand deck and bridge bar provide perfect options for intimate gettogethers, whilst the terrace and waterline restaurant are ideal for large-scale affairs. (<a href="https://fridays.com.au/">https://fridays.com.au/</a>). Note, this event is only open to Early-Career Professionals. An Early Career Professional can be a student in higher education undertaking an undergraduate or postgraduate degree (including PhD), or within 5 years of finishing higher education and starting their career.

Location of Friday's Deck: <a href="https://maps.app.goo.gl/QykpLWEhuFZfiB7d8">https://maps.app.goo.gl/QykpLWEhuFZfiB7d8</a>

## Wednesday, 12 February, 2025

07:00-07:30 Conference Regisration Desk, Grand Chancellor

AARES Conference Registration Desk [Open all day]

07:30-08:15 Hotel Grand Chancellor

Tea and Coffee on Arrival

08:15-09:00 Main Room 1 (ROMA), LVL1

<u>Welcome to Country, Opening Session and Address by Graeme Bolton (Director General, QLD Department of Primary Industries)</u>

8:15-8:30am – Introductory words from LOC Chair

8:30-8:40am - Welcome to Country (10min)

8:40-8:55am – Address by Graeme Bolton (Director General, QLD Department of Primary Industries)

8:55-9:00 - Welcoming words from AARES President

09:00-10:00 Main Room 1 (ROMA), LVL1

<u>Keynote 1 - Prof. Ross Kingwell: Challenges and changes in Australian grain supply chains</u>

Sponsors: Grains Research and Development Corporation (GRDC)

10:00-10:30 Hotel Grand Chancellor

Morning Tea

10:30-12:10 Chancellor 3/4, LVL 0

Egg-Timer Presentations Parallel 1

10:30-12:10 Main Room 1 (ROMA), LVL1

## Special Session 1A - THE VALUE OF A NON-MARKET VALUE

#### Michael Burton

A number of longstanding debates about non-market valuation (NMV) remain unresolved for lack of evidence: whether NMV studies are worth doing at all (is "some number better than no number"), whether a NMV study needs to comply with agreed "best practice" to be worth doing, and whether revealed-preference studies should be preferred to stated-preference studies.

In this Mini-Symposium, the presenters will make important contributions to answering these questions.

We start with an investigation of the accuracy of various NMV methods conducted to different levels of best-practice. Experts who participated in the elicitation process for that study will share some reflections on the process and the results obtained.

Then the results for NMV accuracy will be placed in the much broader context of the Bayesian Value of Information (VOI) framework.

The VOI framework will be described in detail and then applied to a case study for a water-pollution mitigation project. Results show that decisions about which NMV method to use (if any) depend on various factors, including project scale (i.e., what is at stake from the policy decision), the quality of existing knowledge, the accuracy of NMV methods, and the costs of applying different NMV methods.

It is clear that both sides in the existing debates about NMV have been too simplistic in their thinking. A more nuanced, targeted and evidence-based approach to decision making about these methods is needed.

### Session description:

10:30AM Michael Burton (UWA) (Chair): Introduction

10:35AM Sayed Iftekhar (Griffith Uni.): Expert perceptions of the accuracy of non-market valuation methods

10:55AM John Rolfe (CQU), Darla Hatton-McDonald (UTas): Expert panel members' reflections on the elicitation process and results

11:10AM David Pannell (UWA): Applying the Bayesian Value of Information framework to Non-Market Valuation methods

11:25AM Robert Johnston (Clark Uni.): The Benefits and Costs of Improving Decision Making Informed by Non-Market Valuation

11:45AM Michael Burton (UWA) (Chair): Q&A Panel

12:10PM Close

10:30-12:10 Chancellor 2, LVL 0

CP Parallel 1D - Agribusiness & Food Systems

**Robin Roberts** 

10:30-12:10 Main Room 3 (WICKHAM), LVL 1

CP Parallel 1A - Development & Agricultural Production

Martin Andersson

10:30-12:10 Main Room 4 (LEICHARDT), LVL 1

CP Parallel 1B - Climate Change 1

Stefanos Xenarios

10:30-12:10 Chancellor 1, LVL0

CP Parallel 1C - Practice Change & Adoption 1

Rick Llewellyn

10:30-12:10 Chancellor 5, LVL 0

# CP Parallel 1E - Carbon & Nature Markets

Bernardo Cantone

10:30-12:10 Chancellor 6, LVL 0

<u>CP Parallel 1F - Value Chain, Analysis & Marketing 1</u>

Jack Dorries

10:30-12:10 Main Room 2 (TERRACE), LVL1

# Special Session 1B - THE FUTURE OF THE MURRAY DARLING BASIN PLAN

John Quiggin

The special session will examine recent developments in the Murray Darling Basin plan, and consider future issues including the prospects for meeting existing targets and the implications of climate change.

## Session program:

10:30AM John Quiggin (UQ) (Chair): Introduction & Presentation

10:55AM Sarah Wheeler (Flinders University): Presentation

11:15AM Alec Zuo (Flinders University): Presentation

11:35AM John Quiggin (UQ) (Chair): Q&A Discussion panel

12:10PM Close

12:10-13:10 Hotel Grand Chancellor

Lunch

13:10-14:10 Chancellor 1, LVL0

CP Parallel 2C - Practice Change & Adoption 2

Francesco Tacconi

13:10-14:10 Chancellor 2, LVL 0

CP Parallel 2D - Uncertainty & Risk 1

Alan de Brauw

13:10-14:10 Chancellor 5, LVL 0

CP Parallel 2E - Water 1

Constantin Seidl

13:10-14:10 Chancellor 6 , LVL 0

CP Parallel 2F - Value Chain, Analysis & Marketing 2

Hemali Kanthilanka

13:10-14:10 Main Room 1 (ROMA), LVL1

# <u>Special Session 2A - QUEENSLAND GOVERNMENT SPONSORED SPECIAL SESSION: CLIMATE AND ESG</u> INVESTMENT - SUPPORTING SUSTAINABLE AGRICULTURE AND FISHERIES TRANSFORMATION

Gillian Mayne

Sponsors: Queensland Government

The session will provide the audience with understanding of the rapidly emerging area of climate and ESG investment and provoke thought into how this is and will shape agriculture and fisheries sector transformation.

Moreover, it will unpack how economic analysis can support businesses as they look to alter their business models, gain additional income streams from climate and ESG investment or seek to maintain market access and social licence to operate.

## Session program:

- 13:10 Sarah Goswami (QLD Govt, DPI) (Chair): Introduction
- 13:25 Gillian Mayne (QLD Govt, DESI): Natural capital policy drivers of Queensland investment in sustainable land and agriculture
- 13:35 Andrew Champion (QIC): Drivers and dynamics in investment in natural capital
- 13:45 Warwick Ragg (NFF): Sustainability reporting 101 theory to practice
- 13:55 All speakers: Q&A Discussion panel
- 14:10 Close

13:10-14:10 Main Room 2 (TERRACE), LVL1

## Special Session 2B - CQU SPONSORED SESSION - ECONOMICS OF MANAGING WATER RESOURCES

Iohn Rolfe

Sponsors: CQ University

The Economics of Water Resources and Water Management have been major themes in AARES over the past half-century.

Within this broad area, there has been substantial attention on areas such as water quality, governance, water markets and trading, and dealing with externalities and water resources.

This mini-symposium continues this tradition, but with more focus on northern Australia and Great Barrier Reef contexts instead of the traditional focus on southern Australia and Murray Darling Basin issues.

Topics addressed in the mini-symposium include a bibliometric analysis of publications on water issues in Australia, the economic tradeoffs involved in increased monitoring of water quality, the impacts of industry on water quality, and exploring the potential for co-benefits to provide additional levers for water quality management.

### Session program:

- 13:10 John Rolfe (CQU) (Chair): Introduction
- 13:14 Jaba Sarker (CQU): Mapping the Landscape: A bibliometric analysis of water security, governance, and trading in
- 13:26 Nicole Flint (CQU): An economic cost benefit analysis of water quality monitoring in Northern Australian water storages.
- 13:38 Megan Star (Star Economics): Analysing co-benefits of management changes: Water Quality, Carbon Sequestration, and Biodiversity.
- 13:50 John Rolfe (CQU) (Chair): Challenges for water markets in northern Australia.
- 14:02 All speakers: Q&A
- 14:10 Close

13:10-14:10 Main Room 4 (LEICHARDT), LVL 1

CP Parallel 2B - Food, Health & Nutrition 1

Constantin Johnen

13:10-14:10 Main Room 3 (WICKHAM), LVL 1

# CP Parallel 2A - Development & Farming

Ze Zhang

14:10-14:20

10 Minute Break to move rooms

14:20-15:20 Main Room 3 (WICKHAM), LVL 1

# Special Session 3A - CGE MODELLING - INNOVATIVE TOOLS IN POLICY ANALYSIS

#### Bill Malcolm

This session concentrates on adaptations to CGE models, including the TEEMS (Trade and Environmental Equilibrium Modeling System and GlobeTERM which combines GTAP regions with sub-national detail.

The session also includes a discussion of the Food and Agriculture Consequence of Adverse Events Tool (FACAET), a mimic tool built for a client concerned with the implications for the U.S. economy of disease outbreaks in agriculture and VURMTAX, a multi-regional CGE model of Australia.

Impacts on headline economic numbers, sectoral impacts and the fiscal implications of emissions mitigation policies will be discussed.

#### Session program:

- 14:20 Bill Malcolm (Uni. of Melbourne) (Chair): Introduction
- 14:22 Matthew Cantele (Uni. of Melbourne): TEEMS: An open and modular pipeline software platform for reproducible equilibrium model runs
- 14:40 Peter Dixon (Victoria Uni.): Mimicking CGE solutions for fast, secure turnaround: the case of agricultural diseases in the U.S.
- 15:00 Glyn Wittwer (Victoria Uni.): GlobeTERM, including sub-national detail in a multi-country model
- 15:18 Bill Malcolm (Uni. of Melbourne) (Chair): Closing remarks
- 15:20 Close

## 14:20-15:20 Main Room 1 (ROMA), LVL1

# Media Panel Session: Shaping the Narrative of Agriculture and Energy Transition

#### Monique Lewis

As Australia moves towards decarbonisation, regional communities—many reliant on mining and traditional industries—face significant change. How can the media help bridge the gap between policy and public perception, ensuring a smoother transition for agriculture and energy sectors? What challenges will need to be overcome? Chaired by Dr. Monique Lewis, this panel brings together award-winning rural journalists Cathie Schnitzerling, Rhianna Patrick, Kallee Buchanan and Liz Wells alongside Professor John Rolfe, a leading expert in Regional Development and Resource Economics. Together, they will explore the media's role in informing, engaging, and persuading diverse audiences, from policymakers to people on the ground.

The discussion will unpack how different regions—whether agricultural areas, mining towns, the Great Barrier Reef tourism industry, or areas with strong First Nations connections—experience the transition in unique ways. What narratives resonate most with regional communities? How can media help counter misinformation, highlight opportunities, and foster understanding in places where economic shifts create uncertainty? With Queensland at the heart of Australia's energy and agricultural sectors, this session will examine the media's power in shaping public discourse, influencing decision-makers, and ultimately helping communities navigate the path to a more sustainable future.

#### Monique Lewis

Dr. Monique Lewis is a Senior Lecturer in Media and Communication at Griffith University, Gold Coast, QLD, specialising in the intersection of media, health, and risk sociologies. Her research explores how news media frame health, medicine, and risk, with recent work focusing on COVID-19 communication, vaccine narratives, and government messaging. She coedited "Communicating COVID-19: Interdisciplinary Perspectives" (Palgrave Macmillan, 2021) and its forthcoming sequel, bringing together global insights on pandemic communication. Monique has presented her research internationally to scholars, health professionals, and policymakers. She is an active member of several academic associations and co-Vice Chair of the IAMCR Health Communication Working Group.

### Cathie Schnitzerling

Born and raised in outback Queensland, Cathie was ABC TV Landline's first presenter in 1991, fronting and reporting on the program for four years. She returned as the executive producer in 2019 after four years as the regional editor for Queensland. Cathie was the first female director of news for the Ten Network in Brisbane and Sydney. She's worked as a reporter, presenter and producer on television and radio, including the Queensland Country Hour. She presents regularly on ABC Radio Brisbane. An award-winning writer and producer, Cathie was recognised for her leadership and mentoring skills with a Queensland Clarion award for her Contribution to Journalism in 2014. She has tertiary qualifications in leadership coaching and mentoring and has attended the Women's Leadership Forum at Harvard Business School.

## Rhianna Patrick

Rhianna Patrick is a freelance Torres Strait Islander journalist, broadcaster and audio content creator. She is currently a senior journalist with the National Indigenous Radio Service and has an extensive media career spanning more than 25 years. She's an experienced podcaster, newsreader, researcher and producer and has worked in radio, television and new media platforms. Rhianna has produced several podcast series, Black Nation and Blak Bias for Indigenous X and was commissioned by the State Library of Queensland to host, write and produce a podcast series on Eddie Koiki Mabo. The latter podcast earned Gold at the 2022 Australian Podcast Awards. Rhianna began her media career with Triple A Murri Country and the National Indigenous Media Association before joining the ranks of the ABC as news cadet.

## Kallee Buchanan

Kallee has worked as a journalist, presenter and producer at the ABC since 2009. In 2017 she won the radio and digital categories at the Queensland Rural Media Awards, and was named the Rural Journalist of the Year. She went on to win both the Australian and the International Star Prize for Digital Media. She has since won multiple awards for her rural and emergency broadcasting, and in 2021 was the first Australian to receive the IFAJ-Alltech International Award for Leadership in Agricultural Journalism. She is currently the presenter of the Queensland Country Hour, Australia's longest running radio program.

## Liz Wells

Liz Wells is an experienced agricultural journalist with a career spanning more than three decades. She began her journey at The Land newspaper in 1989, covering rural NSW before becoming Knight-Ridder's Australian agricultural correspondent, reporting on grain, meat, fibre, and sugar industries. Her work has taken her across Australia and internationally, covering key market developments and industry events. Now based in Toowoomba, Liz writes for Grain Central as a property and logistics reporter and contributes to GRDC's GroundCover magazine. With a deep connection to agriculture, she brings a wealth of industry knowledge and storytelling expertise to her reporting.

#### Iohn Rolfe

Professor John Rolfe is a distinguished resource economist at Central Queensland University, specialising in regional development, environmental, and agricultural economics. With extensive practical and policy experience in agricultural and environmental issues in northern Australia, he has operated a cattle property in Central Queensland for several decades. Since 1989, Professor Rolfe has held numerous academic and management roles at the university, contributing significantly to research in non-market valuation and economic impact assessments in rural areas. Professor Rolfe is also a past President of AARES (2019) and a Fellow of the Academy of the Social Sciences in Australia.

## 14:20-15:20 Main Room 4 (LEICHARDT), LVL 1

# Special Session 3B - URBAN SUSTAINABILITY TRANSITION IN AUSTRALIA

#### Sorada Tapsuwan

This special session is hosted by the Centre for Urban Transitions (CUT), Swinburne University of Technology. The CUT undertakes research focusing on developing systemic, integrative and actionable knowledge on cities and how they transform.

The special session features the latest research from the CUT on housing, transport, circular economy, and environmental sustainability.

#### Session program:

- 14:20 Sorada Tapsuwan (Chair) (Swinburne Uni. Of Technology): Introduction
- 14:25 Andi Nygaard (Swinburne Uni. Of Technology): Wellbeing loss and gains from housing market spatial sorting and affordable housing
- 14:40 Olamide Shittu (Swinburne Uni. Of Technology): Navigating circular economy transitions in Victoria: A holistic analysis of multi-dimensional challenges
- 14:55 Magnus Moglia (Swinburne Uni. Of Technology): Willingness to pay for zero-emission freight trucks in Australia
- 15:10 All speakers: Q&A Discussion panel
- 15:20 Close

### Presentation description:

## Speaker 1 - Prof Andi Nygaard:

"In a context of worsening housing affordability, housing market spatial sorting exacerbates spatial inequalities in health, and access to green infrastructure and active public transport infrastructure. Affordable and social housing, in well-located areas, may reduce spatial inequality, but their financial and economic case are often poorly supported when compared to alternative public sector investments, or if valuation of access is income elastic and/or considered superior goods. This paper identifies willingness to pay for accessing green and active transport infrastructure, derived from choice experiments, for households in the two lowest income quintiles (low-income) in Australia. Our results identify positive WTP for access also for lower-income households, and that WTP varies across housing type (houses and apartments) as well as urban context (capital and regional cities, smaller regional towns). The quantification of WTP amongst low-income households provides evidence on the wellbeing loss, or gain, associated with housing market spatial sorting, or provision of well-serviced affordable housing."

#### Speaker 2 - Dr Olamide Shittu:

"The transition to a circular economy (CE) involves complex systemic changes across various scales. Despite a growing body of literature, there is a lack of empirical studies on the multi-dimensional challenges of CE transitions in regional contexts. To address this gap, the Circular Economy - Measurements, Assessments, and Pathways (CE-MAP) framework was introduced to explore the challenges of CE transitions in Victoria, Australia. The framework identifies three domains of change: Enabling Environment, Market Creation, and Organisational Change. Through case studies and interviews, the study revealed barriers such as organisational reluctance, inadequate investments for startups, and slow multi-sectoral collaboration. To overcome these challenges, the study recommends a comprehensive approach, including financial incentives, regulatory frameworks, collaboration, knowledge exchange between sectors, and sharing best practices for CE implementation. Aligning policy, practice, and research efforts can collectively address the multi-dimensional challenges of transitioning to a CE."

## Speaker 3 - A/Prof Magnus Moglia:

"Here, we report on a choice experiment survey carried out in mid-2023 in Australia among decision-makers in road freight sectors. Results show overall relatively high willingness to pay in, but more so for HFCTs compared to BETs. Nonetheless, purchase price and ongoing costs remain the key drivers of preferences. Furthermore, we identify three clusters. The first group has a preference for diesel trucks. The second category prefer HFCTs but are not positive about BETs. A third group prefer anything but diesel trucks. We conclude that the transition to decarbonise the freight sector will require both financial and non-financial incentives."

15:20-15:50

## Afternoon Tea

15:50-17:30 Chancellor 3/4, LVL 0

**Egg-Timer Presentations Parallel 2** 

15:50-17:30 Main Room 1 (ROMA), LVL1

# Special Session 4A - CGE MODELLING - CLIMATE CHANGE

Glyn Wittwer

The theme of this session is CGE modelling of climate change.

The session will include a discussion of the GTAP\_INT 2.0 model, a GTAPv7 model variant, scalable in terms of both time (time horizon and step size) and space (number of regions and sectors).

An application of GTAP - INT 2.0 to improved country-level labour productivity loss assessment and its utilization will be presented.

The session will also include a presentation on a stochastic ensemble simulation of decarbonisation paths for Australia under policy uncertainty, introducing the concept of an expected policies baseline and discussion of a model covering 30 countries/regions and 31 sectors showing the Paris Agreement target and path in annual time steps to 2100 in terms of emissions reduction and the shift in energy mix.

#### Session program:

- 15:50 Glyn Wittwer (Victoria Uni.) (Chair): Introduction
- 15:52 Pham Van Ha (Uni. of Melbourne): GTAP\_INT 2.0 A forward looking CGE model for climate change and trade policy analysis
- 16:16 Sam Marginson (Victoria Uni.): VURMTAX-Green to analyse Australia's 2030 emissions reduction policies on the economy and government budgets
- 16:40 Vito Avakumović (Uni. of Melbourne): Improved country-level labour productivity loss assessment and its utilization in GTAP INT 2.0
- 17:04 Tom Kompas (Uni. of Melbourne): The World Will Not Achieve Net Zero by 2050: The Challenge of Meeting Emissions Reductions Targets in a Global Energy and Trade Model
- 17:28 Glyn Wittwer (Victoria Uni.) (Chair): Closing remarks
- 17:30 Close

15:50-17:30 Main Room 2 (TERRACE), LVL1

# <u>Special Session 4B - BUILDING CLIMATE RESILIENCE IN PACIFIC HORTICULTURE: POLICY, PRACTICE, AND COMMUNITY ENGAGEMENT</u>

Shabbir Ahmad

The Pacific horticultural sector has untapped potential to significantly contribute to the region's food security, nutrition, and rural livelihoods through high-value production, processing, and trade activities.

The horticulture sector could boost food and income security, playing a significant role in value addition and economic diversification in the Pacific.

Building community capacity for commercial value addition through improved production and value creation systems in horticulture could offer a pathway to significant improvement in rural economic activity leading to economic growth and social stability.

This session will bring together policymakers, rural development facilitators, and academics to discuss effective narratives to build sustainable, climate-adaptive horticultural farming enterprises that safeguard both food security and economic benefits through value-creation activities.

By bringing together diverse perspectives, the discussion will explore both practical solutions and the economic case for investing in resilience, contributing to sustainable development and food security in the face of climate threats.

## Session program:

15:50 Shabbir Ahmad (UQ) (Chair): Introduction- Brief overview of the session's objectives and the significance of productivity climate resilience in Pacific horticulture/agriculture sector.

16:00 Ian Newton (QID Govt, DAF): Economic Implications of Climate-Resilient Horticulture – Implementing climate adaptation measures to reduce climate change footprint in horticulture sector.

16:10 Deborah Hill (Uni. of Canberra): Community Engagement and Traditional Knowledge - The role of indigenous knowledge systems in climate resilience and horticultural adaptation with a particular focus on exploring agribusiness development opportunities in Solomon Island.

16:20 Sergie Bang (Dpt. of Agriculture & Livestock, PNG): Policy Frameworks for Climate Resilience – Discussion on national and regional policies on addressing climate impacts on horticulture. Some examples of from PNG.

16:30 Thilak Mallawaraachchi (UQ) (Moderator): Moderated discussion

17:15 All speakers / Shabbir Ahmad (UQ) (Chair): Q&A + Closing remarks

17:30 Close

# Speakers:

Dr. Shabbir Ahmad is a Senior Research Fellow at Queensland Alliance for Agriculture and Food Innovation (QAAFI), University of Queensland (UQ).

Dr. Ian Newton is a Principal Entomologist at the Department of Agriculture and Fisheries, Queensland Government.

Dr. Deborah Hill is an Associate Professor at the Centre for Sustainable Communities, University of Canberra.

Dr. Sergie Bang is Secretary at the Department of Agriculture and Livestock, Papua New Guinea.

Dr. Thilak Mallawaraachchi is Honorary Associate Professor at the School of Economics, University of Queensland (UQ) and direct past-President of AARES.

15:50-17:30 Chancellor 5, LVL 0

CP Parallel 3E - Development, Wellbeing & Community

Trang Truong

15:50-17:30 Chancellor 6, LVL 0

CP Parallel 3F - Fisheries, Marine Systems & Aquaculture

Andrew Buckwell

15:50-17:30 Main Room 4 (LEICHARDT), LVL 1

# CP Parallel 3B - Agricultural Production

Christophe d'Abbadie

15:50-17:30 Chancellor 2, LVL 0

CP Parallel 3D - Land & NRM 1

Md Sayed Iftekhar

15:50-17:30 Chancellor 1, LVL0

CP Parallel 3C - Uncertainty & Risk 2

Patrick Ward

15:50-17:30 Main Room 3 (WICKHAM), LVL 1

CP Parallel 3A - Valuation 1

Rodrigo Zilleruelo Estanol

19:00-23:00

Conference Dinner [Blackbird Brisbane]

A fun-filled night celebrating the <u>annual AARES awards</u> recipients at a stunning location.

Blackbird has built its reputation as a Brisbane dining and entertainment institution over a decade. Ask a Brisbane local if they've visited Blackbird and the chances are they will have had many memorable experiences, including late music-fuelled nights, long fine wine-fuelled lunches, family celebrations, or cocktails on the terrace soaking up the beautiful river

The central riverside location, in close proximity to CBD hotels and the hotel district of Fortitude Valley, as well as a reputation for excellence, places Blackbird high on the itinerary of Brisbane visitors too. Guests flock from near and far for our spectacular wood-fired steaks, sensational seafood, sophisticated wines and celebratory vibes.

(https://www.blackbirdbrisbane.com.au/restaurant/)

Location of Blackbird: <a href="https://maps.app.goo.gl/Mc8NPTGQCqHWTHbJA">https://maps.app.goo.gl/Mc8NPTGQCqHWTHbJA</a>

Parking details https://www.wilsonparking.com.au/parking-locations/queensland/brisbane-cbd/riverside-centre-car-park/

# Thursday, 13 February, 2025

07:00-08:20

Women in Economics Network (WEN) Breakfast Event

The WEN-AARES breakfast offers a space for women economists attending the AARES conference to connect with each other over a relaxing breakfast and to meet with some WEN Qld local members.

The Women in Economics Network (WEN) has been formed to promote and support the careers of female economists in Australia.

The objectives for the Women in Economics Network are to:

For more information see WEN Website

07:00-08:30 Conference Regisration Desk, Grand Chancellor

AARES Conference Registration Desk [Open all day]

08:20-08:30 Hotel Grand Chancellor

Tea and Coffee on arrival

08:20-08:30

10 Minute Break to move rooms

08:30-10:10 Chancellor 1, LVL0

# <u>Special Session 5B - A SYSTEMS THINKING APPROACH TO ADVANCING FOOD AND NUTRITION SYSTEM</u> RESILIENCE

Risti Permani

The challenges facing our food systems are vast. Nearly a billion people worldwide are hungry or undernourished, while 1.5 billion are overweight or obese. In developing countries, many households spend over half their income on food, leaving them vulnerable to sudden price changes that can deepen poverty. On the production side, food systems struggle with climate change, soil degradation, and labour shortages. Building resilience in these systems is essential to withstand shocks and ensure continued function during disruptions. However, gaps remain in understanding resilience root causes, potential strategies, measuring and monitoring resilience, and addressing gender, disability, and social inclusion (GEDSI) perspectives. This session is intended for participants involved in agrifood systems and agricultural research for development (R4D), including researchers, research project managers, scientists, economists, and policymakers whose work consists in understanding the complexity of issues in the food systems. The participation of early career researchers (including higher-degree research students) is strongly encouraged.

#### Session program:

08:30AM Risti Permani (UQ AGFS) (Co-Chair), Ammar Abdul Aziz (UQ AGFS) (Co-Chair): Introduction

08:35AM Julius Kotir (UQ AGFS), Yanti Muflikh (IPB University): Introduction to Systems Thinking: Concepts and Applications to Food and Nutrition System Research

08:50AM Ammar Abdul Aziz (UQ AGFS) (Co-Chair): Data-driven Strategies to Defining Peri-urban Areas

09:05AM Adhitya Kiloes (BRIN - National Research and Innovation Agency, Indonesia): Peri-urban Agriculture and Food and Nutrition System Resilience in Indonesia: Insights from Consumer and Nutrition Analyses

09:205M Ali Akber (UQ AGFS): Revisiting the Environmental Dimensions of Food and Nutrition System Resilience

09:35AM Risti Permani (UQ AGFS) (Chair): Applying the Critical Concepts in Food and Nutrition System Research: GEDSI, Impact Pathway and the Food System Resilience Index

09:45AM All speakers / Q&A Discussion panel

10:05AM Risti Permani (UQ AGFS) (Co-Chair), Ammar Abdul Aziz (UQ AGFS) (Co-Chair): Closing remarks

10:10AM Close

08:30-10:10 Main Room 1 (ROMA), LVL1

<u>Keynote 2 - Paul Graham : The Australian energy transition: Technology and cost drivers</u>

David Stern

Paul's presentation explores the change in conventional wisdom with respect to the cost of the energy transition and the technologies that will achieve it. In the 2000s, the technology outlook and cost of transition was very different to what it is now. Australia expected its industry sector to be substantially impacted by mitigation efforts, for renewables to play a minor role in the near term and that we would have a high diversity of transport fuels. The presentation explores why these previous outlooks did not emerge and what they have been replaced with, including how renewables became low cost, whether Australia could become a renewable superpower and why electrification of road transport is succeeding where other alternative fuels failed to be adopted.

08:30-10:10 Main Room 3 (WICKHAM), LVL 1

<u>Special Session 5A - LEVERAGING SOCIAL INCENTIVES TO ENHANCE THE EFFECTIVENESS OF INITIAL PAYOUTS FOR LANDSCAPE-SCALE ENVIRONMENTAL OUTCOMES</u>

Steven Schilizzi

Land degradation, biodiversity loss and other environmental impacts from agricultural activities have been typically understood in terms of a mismatch between private landholders producing public benefits but shouldering private costs. Policy responses have then been to financially compensate landholders for participating in environmental conservation programs. However, landholders' participation rates have remained far lower than anticipated and when participating their conservation actions have tended to stop as soon as payments ended, suggesting that financial payments in and of themselves are not enough to address conservation needs. This special session proposes to explore these aspects by presenting work on the dynamics of adoption and disadoption of conservation practices; the effect of social norms on farmers' decisions to adopt and sustain sustainable farming practices beyond the duration of conservation programs; the capacity of social sanctions to prevent free-riding and encourage cooperation in public good projects; and the extent to which coordination incentives can promote the positive co-evolution of social and ecological processes that support sustainable land use by landholders.

10:10-10:40 Hotel Grand Chancellor

Morning Tea

10:40-12:10 Main Room 1 (ROMA), LVL1

# Special Session 6 - TRANSITIONING AUSTRALIA'S ELECTRICITY GRID: MARKET REFORM AND POLICY

#### Frank Jotzo

Electricity is undergoing a profound shift in Australia. Electricity generation is shifting rapidly from a system supported by a relatively few large electricity generation facilities, dominated by coal fired power stations, to a system dominated by renewables generated by thousands of producers ranging from household roof-top solar to larger scale wind and solar farms, supported by gas fired plants and a diverse range of stored energy.

Wholesale market prices are low or negative when renewables dominate, and there is uncertainty about revenues in the energy-only market. Generation investments are now underwritten by governments.

This session takes stock of the changes and challenges. It asks whether government underwriting might need to be continued, and whether national electricity market reform is needed.

## Session program:

10:40AM Frank Jotzo (ANU) (Chair): Introduction

10:45AM Joel Gilmore (Griffith Uni.): Transition and long-term market settings in the NEM – who bears the risks.

10:55AM Gordon Leslie (Monash Uni.): Economics of NEM market reform.

11:05AM Andrea Walton (CSIRO): Attitudes to renewable energy systems and new transmission lines in the countryside.

11:15AM Frank Jotzo (ANU) (Chair): How much government involvement in the renewables dominated grid of the future?

11:25AM All speakers / Paul Graham (CSIRO) (Moderator): Q&A Discussion panel

12:05AM Frank Jotzo (ANU) (Chair): Concluding remarks

12:10PM Close

10:40-12:10 Main Room 1 (ROMA), LVL1

<u>Keynote 3 - Keith Campbell Memorial Address - Prof. Katrin Rehdanz: International Trade in Agricultural Products: Biodiversity, Climate and Food Security</u>

Sorada Tapsuwan

10:40-12:10 Chancellor 1, LVL0

<u>Keynote 4 - Michelle Wellington PSM: Meeting the Challenges of Transition to a Sustainable Future – discussing the opportunities</u>

Kym Anderson

Sponsors: Crawford Fund

The session will be chaired by Kym Anderson, a member of the Crawford Fund Board.

12:10-13:10

AJARE Session

12:10-13:10

Lunch

13:10-14:10 Chancellor 1, LVL0

<u>Keynote 6 - Prof. Natalie Stoeckl: Valuing reciprocity for a sustainable future</u>

Jeff Connor

13:10-14:10 Main Room 1 (ROMA), LVL1

Keynote 5 - Prof. Wendy Umberger: Challenges facing food and agricultural systems

David Shearer Sponsors: ACIAR

14:10-14:20

10 Minute Break to move rooms

14:20-15:00 Main Room 1 (ROMA), LVL1

Presidential Address - Dr Sorada Tapsuwan

Emilio Morales

15:00-15:30

Afternoon Tea

15:30-17:10 Main Room 1 (ROMA), LVL1

# <u>Special Session 7A - FROM FIELDS TO SHELVES: CLIMATE, POLICY, AND FIRM BEHAVIOUR IN</u> AGRICULTURAL MARKETS

Alexandra Hill

The session features a panel of economists, diverse in their career stages and areas of expertise.

The session will address factors influencing the volume and pricing of agricultural products as they move from fields to shelves.

The session will open with two talks "in the field" addressing climate change, transition to retail procurement markets addressing food loss due to firm behaviour, move to retailer consumer markets addressing how government policies influence pricing, and will conclude with a broad-scope study of the implications of conflict for price transmission.

# Session program:

- 15:30 Alexandra Hill (UC Davis) (Chair): Introduction
- 15:35 Sarah Whitnall (UC Davis): Aggregating Over Space: Decomposing Bias in Panel Fixed Effects Estimates
- 15:47 Daniel Scheitrum (Cal Poly): Price Gouging Protections Ineffective at Tempering Rising Prices
- 16:00 Aleks Schaefer (Oklahoma State): Climate Change and the Industrial Organization of Animal Agriculture
- 16:17 David Ubilava (USYD): Local Economic Shocks and Conflict: Evidence from Maize Markets across Africa
- 16:30 Timothy Richards (ASU): Inventory Competition, Food Waste, and the Cost of a Stockout
- 16:37 Alexandra Hill (UQ) (Chair): Food Loss and the New Volume Control: Strategic Use of Minimum Quality Standards
- 16:50 All speakers / Alexandra Hill (UC Davis) (Chair): Q&A Discussion panel
- 17:10 Close

15:30-17:10 Chancellor 6, LVL 0

CP Parallel 4E - Biosecurity

Richard Bradhurst

15:30-17:10 Chancellor 3/4, LVL 0

Egg Timer Presentations Parallel 3

15:30-17:10 Main Room 3 (WICKHAM), LVL 1

Special Session 7C - LAND USE MODELLING

lan Bateman

15:30-17:10 Main Room 4 (LEICHARDT), LVL 1

CP Parallel 4A - Choice modelling

Kynda Curtis

15:30-17:10 Chancellor 1, LVL0

CP Parallel 4B - Water 2

Joey Blumberg

15:30-17:10 Chancellor 2 , LVL 0

CP Parallel 4C - Energy & Utilities

Kudzai Zvenyika

15:30-17:10 Chancellor 5, LVL 0

<u>CP Parallel 4D - Agricultural Technology & Innovation</u>

Marta Monjardino

15:30-17:10 Main Room 2 (TERRACE), LVL1

# <u>Special Session 7B - EAST ASIA BRANCH SPECIAL SESSION: ASSESSING ECONOMIC IMPACT OF NON-TARIFF</u> MEASURES ON GLOBAL GRAIN TRADE AND ITS IMPLICATIONS FOR RURAL TRANSFORMATION

#### Yu Sheng

With average tariffs falling since the Uruguay Round in 1994, NTMs have gradually become the most essential obstacle to global agricultural commodity trade. The rapid increase in NTMs, particularly in the realm of agricultural trade, have erode the gains obtained from the success made by global trade negotiators in tariff cutting over the post-war period, presenting emerging challenges to global trade liberalization, and thus threaten global food security and the achievement of Millennium Sustainable Development Goal by 20230 (UN, 2021).

To cope with these challenges, trade negotiators need better understanding of the existing NTMs and their impacts on agricultural trade and determine what NTMs and products to prioritize in bilateral and multilateral negotiations. This special session will offer insights into the economic impact of major Non-Tariff Measures (NTMs) on global grain trade and the Australian grains industry. Discussions will also cover trade policies and rural transformations in Australia. By offering comprehensive empirical evidence and a robust, evidence-based modeling tool, we aim to empower policymakers and industry stakeholders with actionable insights. This special session is organised with the support of Grains Australia.

## Session Program:

15:30 Prof. Yu Sheng (Crawford School of Public Policy, ANU) (Chair): Introduction

15:35 Dr. Wanlu Dong (Institute of Agricultural Economics, Chinese Academy of Social Sciences)/Yu Sheng: Measure of NTMs for Grains Products Globally and Australia

15:45 Christian Creed (Trade and Global Change, ABARES): Assessing Trade Impact of NTMs on Grain Products: Assessing trade impact of NTMs: the structural Gravity model I

15:55 A/Prof. Sizhong Sun (College of Business, Law and Governance, JCU): Assessing Trade Impact of NTMs on Grain Products: Assessing trade impact of NTMs: the structural Gravity model II

16:05 Liangyue Cao (Trade and Global Change ABARES): CGE Model: Analysing economic impact of NTMs through the value-chain

16:15 A/Prof. Qi Cui (School of Economics, China Petroleum University): CGE Model: Prioritizing policy tools for managing NTMs effects

16:25 Dr. Xianneng Ai (School of Advanced Agricultural Sciences, Peking University): Economic Development and Rural Transformation in Mongolia: Mongolia vs. Inner Mongolia

16:40 Dr. Moyu Chen (School of Advanced Agricultural Sciences, Peking University): Institutions, Policies, and Investments: Contextual Drivers of Agricultural Labor Productivity Across Stages of Rural Transformation

16:55 All speakers Q&A Panel

17:10 Close

# 19:00-23:00

# Social Event [Felons Brewing Co.]

Felons Brewing Co. is a modern day brewery that creates and celebrates the good life.

Our brewery finds its name from the true tale of four felons, who, in 1823, on their way to Illawarra from Sydney were blown off course and found themselves lost at sea, ended up shipwrecked up north on Moreton Island. Their thirst for adventure and freedom lives on today in our beer.

We invite those from all walks of life to visit us at our brewery down under the iconic Story Bridge to take in long cool sip of the good life and soak up the feeling life doesn't get much better than this. Cheers!

Location of Felons Brewing Co. https://maps.app.goo.gl/RFqqpwAs6doPgCrn9

07:00-08:30 Hotel Grand Chancellor

Tea and Coffee on arrival

07:00-08:30 Conference Regisration Desk, Grand Chancellor

AARES Conference Registration Desk [Open all day]

08:30-10:10 Chancellor 3/4, LVL 0

<u>CP Parallel 5G - Agricultural Finance</u>

Derek Baker

08:30-10:10 Main Room 4 (LEICHARDT), LVL 1

CP Parallel 5E - Grains

Emanuel Gomez

Sponsors: Grains Research and Development Corporation (GRDC)

08:30-10:10 Chancellor 6 , LVL 0

<u>CP Parallel 5F - Ecosystem Accounting</u>

John Kandulu

08:30-10:10 Main Room 1 (ROMA), LVL1

# <u>Special Session 8A -CSIRO SPONSORED SPECIAL SESSION: SOCIAL IMPACT, SUSTAINABILITY, AND FOOD SYSTEMS IN TRANSITION</u>

Peggy Schrobback Sponsors: CSIRO

Our food system faces a range of challenges stemming from complex problems like climate change, geopolitical stress, ecosystem collapse, and inequality.

Many agricultural producers are working hard to respond to a new biophysical reality while also tackling disruptions in factor markets, including agricultural labour markets.

Meanwhile, consumers and buyers are putting pressure on food supply chains to address, mitigate, or otherwise more transparently manage social risks and labour liabilities.

In this session we explore emerging economic work around this topic, including: how do we value agricultural work and what employment measures matter for a transitioning agriculture sector?

What role might consumer preferences play for delivering socially sustainable products? What are the risks/opportunities around ensuring socially sustainable jobs accrue in the agriculture sector?

After the presentations there will be a 35-min panel discussion or Q&A.

#### Session program:

08:30AM Peggy Schrobback (CSIRO) (Chair): Introduction

08:35AM Katie Ricketts (CSIRO): Valuing social impacts and designing a quality jobs measure for tracking agricultural transformation

08:50AM Sarah Whitnall (UC Davis): The nexus between agricultural labour, climate change, profitability and productivity 09:05AM Margaret Jodlowski (Ohio State Uni.): What underlies agricultural visa workers' job satisfaction? Evidence from qualitative and survey data

09:20AM Alexandra Hill (UC Davis): Farm labour supply in the US and Mexico: Future projections and implications for modelling

09:35AM Peggy Schrobback (CSIRO) (Chair) & All speakers Q&A + Panel discussion (35 min)

10:10AM Close

### Presentation description:

## Katie Ricketts (CSIRO A&F):

"Valuing social impacts and designing a quality jobs measure for tracking agricultural transformation" Like other aspects of sustainability, labour relations may be enforced, enabled or disabled by a range of institutions and governance mechanisms. In the case of agriculture, we provide examples for how the institutions mediating sustainability appear to fundamentally shifting the nature of agricultural work, often with little or no input from affected rural or indigenous communities. Katie will discuss a case study from Queensland that consider how agricultural work is changing, what community values are/aren't reflected in typical co-benefit measures, and the usefulness of measuring quality employment. (15 minutes)

#### Sarah Whitnall (UC Davis):

"The nexus between agricultural labour, climate change, profitability and productivity" This study reviewed literature about the nexus between agricultural labour, climate change, and farm-level profitability and productivity. Focus was put on potential vulnerabilities and adaptation responses relevant to the Australian agricultural context. (15 minutes)

## Margaret Jodlowski (Ohio State University):

"What underlies agricultural visa workers' job satisfaction? Evidence from qualitative and survey data" This study presents new insights from a unique and novel data source based on a survey of agricultural workers with temporary visas in the USA that was conducted using interviews about their impressions of their positions. We examined factors that influence workers overall work experience, including network effects, climate measures, particularly temperature, at the time of interview, and perceptions of their managers. These insights reveal important dynamics in the way in which workers' characteristics influence both the kinds of jobs they accept and their perceptions of their work and working conditions. (15 minutes)

## Alexandra Hill (UC Berkeley):

"Farm labour supply in the US and Mexico: Future projections and implications for modelling" This project studied the evolution of the US and Mexico farm labor markets and documents how labor markets mediate agriculture's response to environmental stressors, with implications for agricultural production, wage rates, and the relocation of firms. This project developed the SIMPLEG-LABOR model, a version of the partial equilibrium gridded model of US agriculture that incorporates characteristics of modern farm labor markets, provides a validation of the model's performance using historical data, and develops future projections given predictions of changes in farm labor supply. (15 minutes)

08:30-10:10 Chancellor 1, LVL0

CP Parallel 5C - Productivity & Efficiency

Ella Dewilde

08:30-10:10 Main Room 2 (TERRACE), LVL1

<u>Special Session 8B - CSIRO SPONSORED SPECIAL SESSION ECONOMIC IMPLICATIONS OF TRANSITION</u> PATHWAYS TOWARDS NET ZERO EMISSIONS

George Verikios Sponsors: CSIRO

This session will focus on the economic consequences of achieving net zero emissions in Australia. The objectives of the session include: (1) Explore the multi-sectoral implications of achieving net zero emissions, (2) Explore the sectoral challenges of industrial transformation (e.g., energy, transport and agriculture) as driven by decarbonisation efforts, and (3) Explore the effects on regional economies of delivering net zero for the country. The session is relevant to participants from the private sector, the government, or academe who are interested in understanding the scale and implications of the net zero transition for Australia. Attendees will have the opportunity to hear a diverse set of perspectives from the presenters and the audience, learn state-of-the-art tools in assessing the economic impacts of net zero transition, and understand the practical and policy challenges across the economy of achieving net zero emissions in Australia. It is our hope that participants will leave better informed to consider and contribute to urgent debates around the speed of transition, including the next Nationally Determined Contribution target for 2035, and the sectoral pathways in development by the Australian Government.

## Session program:

08:30AM George Verikios (CSIRO) (Chair): Introduction

08:35AM Yingying Lu (CSIRO): Towards the transition to a net-zero-emissions and circular economy: Global and domestic modelling applications

08:50AM Duy Nong (CSIRO): Effects of Australia's pathway to net zero emissions on agriculture-food systems in Australia and other countries.

09:05AM Manfred Lenzen (Uni. of Sydney): Investigating the consequences for energy demand and emissions of transitioning towards net zero as well as global equity.

09:20AM Philip Adams (Victoria Uni.): Multi-sector economic modelling and the transition to net zero emissions.
09:35AM George Verikios (CSIRO) (Chair): Modelling potential technology transition and emissions pathways in six
Australian sectors – electricity and energy, industry and resources, transport, land and agriculture, waste, and the built environment.

09:50AM All speakers: Q&A

10:10AM Close

08:30-10:10 Main Room 3 (WICKHAM), LVL 1

CP Parallel 5A - Biodiversity

Gabriela Scheufele

08:30-10:10 Chancellor 5, LVL 0

CP Parallel 5B - Land & NRM 2

Tim Capon

08:30-10:10 Chancellor 2, LVL 0

<u>CP Parallel 5D - International Trade & Tariffs</u>

Rosa Mar Dominguez-Martinez

10:10-10:40

Morning Tea

10:40-12:20 Main Room 1 (ROMA), LVL1

<u>Keynote 7 - Margaret Power Memorial Lecture - Prof. Nick Hanley : Markets for biodiversity credits</u>

Gabriela Scheufele

12:20-13:20

Lunch

13:20-15:00 Chancellor 2 , LVL 0

CP Parallel 6D - Climate Change 2

Ramilan Thiagarajah

13:20-15:00 Chancellor 1, LVL0

<u>CP Parallel 6C - Farm Management & Farmer Behaviour</u>

Md Monirul Islam

13:20-15:00 Main Room 3 (WICKHAM), LVL 1

CP Parallel 6A - Valuation 2

Bethany Cooper

13:20-15:00 Chancellor 3/4, LVL 0

CP Parallel 6G - Practice Change & Adoption 3

Vanessa Bonke

13:20-15:00 Main Room 4 (LEICHARDT), LVL 1

CP Parallel 6B - Consumer choice

Jing Zhang

13:20-15:00 Chancellor 5, LVL 0

CP Parallel 6E - Food, Health & Nutrition 2

**Emilio Morales** 

13:20-15:00 Chancellor 6, LVL 0

# CP Parallel 6F - Circular Economy & Waste

Maria Estela Varua

13:20-15:00 Main Room 2 (TERRACE), LVL1

# <u>Special Session 9B - ON THE ECONOMICS OF PATHWAYS TO SUSTAINABLE AGRICULTURAL AND LAND SYSTEMS.</u>

Annette Cowie Sponsors: CSIRO

This session explores innovative approaches to reducing emissions in Australian agriculture and bioenergy production. It focuses on exploring how technology, policy and environmental dynamics interact and influence long-term sustainability outcomes.

The presentations will provide a multidisciplinary perspective on how Australian agriculture can adapt to meet climate targets, examining both current practices and future opportunities for sustainable growth.

## Session program:

- 13:20 Annette Cowie (NSW DPIRD) (Chair): Introduction
- 13:35 Aaron Simmons (NSW DPIRD): Agricultural Management Practices for Climate Change Adaptation.
- 13:50 Mengyu Li (Uni. of Sydney): Integrated Assessment Modelling (IAM) of climate mitigation scenarios for Australia with a focus on energy and emissions trends.
- 14:05 Adam Charette-Castonguay (CSIRO): Agricultural system implications of Australia's Sustainable Aviation Fuel Roadmap.
- 14:20 Yuyao Zhu (IIASA): Potential yield impacts on major crops in Australia using global mainstream crop models under different scenarios.
- 14:35 Trang Tran (CSIRO): Assessing domestic to global multi-sector impacts of land-based emission reduction policies.
- 14:50 All speakers: Q&A
- 15:00 Close

13:20-15:00 Main Room 1 (ROMA), LVL1

# <u>Special Session 9A - RECOE SPONSORED SPECIAL SESSION: THE RESILIENT FARM: LESSONS LEARNED FROM SOUTHERN QUEENSLAND</u>

Ben Lyons

Sponsors: RECOE

Over the past 4 years, the Institute for Resilient Regions (IRR) at the University of Southern Queensland – which includes: the Regional Economies Centre of Excellence team (RECoE-UNISQ) and the Southern Queensland/Northern NSW Drought Innovation Hub (SQNNSW) - have undertaken number of key projects focussed on the sustainability and resilience of agricultural enterprises in southern Queensland.

In particular, these projects have examined resilience from various perspectives: drought and climate change; economic shocks; personal and social wellbeing; tools and skills to build resilience; policy and governance frameworks to support resilient agriculture and rural communities.

This panel session would showcase some of those projects (many still ongoing) and highlight some of the key lessons learned – that together help build a profile of the "Resilient Farm" Format: a panel session – hosted by an MC/Facilitator, with short presentations followed by Q&A.

## Session panel:

- 13:20 Prof. Ben Lyons (IRR/SQNNSW Drought Hub) (Chair): Introduction: Overview- RECoE, IRR and 'The Resilient Farm'
- 13:35 Ms Kerry Battersby (QLD Farmers Federation): Lessons from Farm Business Resilience Planning
- 13:50 Dr, Robert Mellor (IRR, UNISQ): Building Capacity: having access to practical tools and data... and knowing how to use them
- 14:05 Andrew Drysdale (IRR, UNISQ): Manage the land well
- 14:20 Dr. Marlyn McInnerney (IRR, UNISQ): Changing the stories and narratives of farming and resilience
- 14:35 Prof. John Rolfe (CQU): Suggestions for a framework of governance and policies that best support the 'Resilient Farm'?
- 14:50 All speakers / Ben Lyons (SQNNSW) (Moderator): Q&A
- 15:00 Close

15:00-15:30

Afternoon Tea

15:30-16:15 Main Room 1 (ROMA), LVL1

Awards and Closing Session

Dominic Smith