



CLIMATE FUTURE & SMART AGRICULTURE

# 2024 FORUM



NATIONAL  
FOUNDATION FOR  
AUSTRALIA-CHINA  
RELATIONS  
澳中基金会



University of  
Southern  
Queensland  
Australia



兰州大学  
LANZHOU UNIVERSITY

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**15**  
**OCTOBER**

### **Check-In & Registration**

3:00 pm

### **Welcome Dinner**

5:00 pm

### **Event Concludes**

9:30 pm

**16**  
**OCTOBER**

### **Opening Ceremony**

- Provincial Representatives
- QLD Government Representatives
- University of Southern Queensland  
& Lanzhou University Representatives

8:30 am

### **Break & Refreshments**

10:00 am

### **Keynote Speeches**

10:30 am

### **Lunch & Social Networking**

12:30 pm

### **Thematic Breakout Sessions**

- Environmental & Climate Future
- Agricultural Technology & Smart Farming
- Regional Development & Carbon Finance

1:30 pm

### **Summit Conclusion**

4:00 pm

### **Refreshments**

4:30 pm



[Register your interest to attend in person or online here](#)

This project would not be possible without the generous support of the National Foundation for Australia-China Relations and the Australian Department of Foreign Affairs and Trade.



NATIONAL  
FOUNDATION FOR  
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## National Foundation for Australia-China Relations

The National Foundation for Australia-China Relations is an Australian government initiative designed to enhance understanding and foster engagement between Australia and China. Serving as a national platform, the Foundation collaborates with business, government, and communities to promote constructive relations with mainland China, Hong Kong, and Taiwan. It offers practical support and expertise, facilitates connections, commissions research, and coordinates training and exchange programs.

Through its annual grants program, the Foundation supports Australian individuals and organisations in advancing, promoting, and strengthening understanding and engagement between Australia and China, particularly in business and community sectors, in support of Australia's national interests.

## Project Chinese partners

Lanzhou University, Hebei University of Economic and Business, Northwest A&F University, Central University of Finance and Economics, and Jilin University.

## Project Australian partners

Toowoomba Surat Basin Enterprise, Toowoomba Regional Council, Queensland Department of Agriculture and Fisheries, Agrifutures Australia, Study Toowoomba, Study Queensland, Trade & Investment Queensland, and Austrade.



# Speakers

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## Professor Geraldine Mackenzie

Professor Geraldine Mackenzie is the Vice-Chancellor of the University of Southern Queensland a position she has held since 2017. The Vice-Chancellor is the Chief Executive Officer of the University, and is also the University's principal academic officer. Professor Mackenzie exercises general supervision over the activities and welfare of staff and students of the University and promotes the interests and furthers the development of UniSQ. A highly experienced leader in higher education, she has held senior executive positions since 2009.

Professor Mackenzie is a Steering Group member of the University Foreign Interference Taskforce. She is a Fellow of the Australian Academy of Law, the Queensland Academy of Arts and Sciences, and the Australian Institute of Managers and Leaders. Professor Mackenzie was previously a Board Member of Universities Australia and Chair of the Queensland Vice-Chancellor's Committee.

A Barrister by profession, she is passionate about broadening participation in higher education, particularly in regional Australia, and fostering links between the University, business, and the community. Professor Mackenzie is a Fellow of the Australian Academy of Law, the Queensland Academy of Arts and Sciences, the Australian Institute of Managers and Leaders, and a Graduate of the Australian Institute of Company Directors. Her research interests and expertise are in law and public policy, particularly sentencing.



## Heidi Dugan

Heidi Dugan is a renowned television personality, entrepreneur, and expert in Chinese markets, with over 30 years of experience in China. She leads Trade and Investment Queensland's efforts to foster growth and opportunities in China, drawing on her extensive background in strategy, marketing, and business development.

Heidi is the CEO and Founding Director of Arete Group and sits on several prestigious boards, including AustCham Shanghai and the University of Southern Queensland. As a pioneer, she became the first foreign TV host in China, amassing a daily audience of 6 million viewers. Heidi has worked closely with foreign brands, leveraging her influence to facilitate their successful integration into the Chinese market.

An accomplished author and award-winning entrepreneur, Heidi has also received accolades for her contributions to media and international relations, including being a key figure in China-Australia diplomatic celebrations.



## Professor John Bell

Professor John Bell is the Deputy Vice-Chancellor (Research and Innovation) at the University of Southern Queensland (UniSQ).

Prior to joining UniSQ, Professor Bell was the Head of the School of Chemistry, Physics and Mechanical Engineering at the Queensland University of Technology (QUT). Over a 25-year period at QUT, he held a range of senior positions including Assistant Dean (Research) in the Faculty of Built Environment and Engineering from 2001-2011, and Director of the Centre for Built Environment and Engineering Research from 2003-2004.

As an outstanding researcher in his area of materials engineering and energy, Professor Bell has led projects in the development of energy efficient smart windows, dye-sensitised solar cell development, and carbonaceous materials. He also has expertise in the area of energy efficiency and occupant comfort in buildings and has carried out extensive research with industry. Professor Bell has received over \$25 million in research funding during his 30-year career as a researcher.

Professor Bell has a wealth of experience and impressive track record in the development of research capacity in terms of research income and HDR completions, as well as national and international research leadership, including the ARC College of Experts and Laureate panels. Professor Bell is also a strong advocate for improving gender equity in science, technology, engineering, mathematics and medicine (STEMM) disciplines and leads USQ's Science in Australia Gender Equity (SAGE) Action Plan to develop strategies to advance the careers of women across the University.



## Professor Ren Yi

Professor Ren is the Pro Vice-Chancellor International at the University of Southern Queensland, providing leadership in internationalisation and global engagement. With over 20 years of experience, he has held senior roles at the University of Melbourne, University of Queensland, and Macquarie University. Currently, he is Vice President of the International Education Association of Australia (IEAA) and a member of the Universities Australia Deputy Vice-Chancellors International Executive Group. In recognition of his contributions, he was named a Fellow of the Australasian Research Management Society (ARMS) in 2022.

Professor Ren is a distinguished researcher in international education and global partnerships, actively engaged with several research management bodies. He has been awarded the Australian Endeavour Executive Award (2009) and the INORMS Award for Excellence in Research Management Leadership (2021). His industry expertise includes consulting for international companies, and he has led significant projects for the Australian Government and APEC. He earned his doctorate from the University of Melbourne in economic geography and international business and is a reviewer for the Australian Research Council and the European Commission.



## Professor Shahbaz Mushtaq

Professor Shahbaz Mushtaq holds the distinguished position of Professor of Agricultural Economics and Finance at the Centre of Applied Climate Sciences at the University of Southern Queensland. In his impactful research, Professor Mushtaq delves into the complexities of managing climate risks and their impacts, seeking to enhance the productivity and profitability of agricultural industries. His work encompasses the development of innovative integrated risk management strategies and designing effective risk transfer programs and policies aimed at bolstering the resilience of production systems.

Currently, Professor Mushtaq is directing his expertise towards the creation of alternative risk transfer solutions, with a significant focus on the domain of insurance. This proactive approach is a direct response to the urgent and escalating importance of risk transfer in the context of climate change. Through his dedicated efforts, he aspires to fortify the resilience of food production systems by crafting strategic risk management and transfer solutions utilizing insurance mechanisms.



## Professor Tek Maraseni

Prof Tek Maraseni earned a double BSc (Science and Forestry) in Nepal, an MSc (NRM) in Thailand, where he was awarded a gold medal (GPA 4/4), and a PhD (Environmental Science and Management) in Australia. With 27+ years of research expertise in 15 countries, his research focuses on various aspects of carbon projects, the establishment of forest governance standards, examination of community-based forest management systems, carbon footprint assessment of agricultural and forest products, analysis of the value chain of agricultural and forest products, and assessment of the economic value and payment mechanisms for ecosystem services.

He has co-authored with 401 researchers from 34 different countries and has published 5 books, 37 book chapters, 5 policy briefs, and over 250 journal papers, earning >8650 citations and achieving an h-index of 51 and i-10index of 177. Globally ranked 5th in 'Carbon Management' and 85th in 'Forestry' by Google Scholar, his research has influenced policies worldwide. Recognized with multiple national and international awards, including the Research Excellence Award (4 times) from UniSQ, the Senior International Scientist Award from the Chinese Academy of Sciences in 2013, the Climate Change Professional Fellows award from the US State Department in 2011, Queensland China Climate Change Fellowship from Queensland and Chinese Governments in 2009, and many more.

He has served as the forestry expert for the WMO-FAO-UNESCO Task Team on Indigenous and Local Knowledge, supervised 22 PhD students to completion, and serves on two editorial boards.



## Professor John Dearnaley

Associate Professor John Dearnaley is internationally known for his research into the fungal symbionts of native Australian plants and has formally described fourteen new Australian fungal species. He has a PhD from the Australian National University and has had an academic career spanning 28 years including a 2.5-year postdoctoral position in Toronto, Canada. He has authored over 40 scientific publications including two book chapters and an article in the prestigious journal “Science”.

He was previously the president of the Australasian Mycological Society (2014-2017) and a representative of the International Mycological Society in this time. His research interests encompass the taxonomy, ecology and economics of Australian fungi. Current projects include the taxonomy and bioactive properties of rainforest endophytes, the taxonomy and pathology of Australian Marasmiaceae, fungal biomaterials and mycorrhizal fungi in agriculture.



## Professor Ben Lyons

Associate Professor Ben Lyons is the Director of the Rural Economies Centre for Excellence. He has worked in the business and research sectors in China for 20 years, including for the Woolmark Company/AWI, AWEX, MLA, UQ China Agricultural Economics Group and The Financial Times.

He developed the Cathay Pacific air freight route from Toowoomba to Hong Kong and led one of Australia's largest agribusiness missions to China in 2016. Ben was a Australia-China Council Business Scholar in 2002 and studied Chinese literature in Nanjing & Beijing. He was Deputy Chair of the Australian Chamber of Commerce (AustCham) in Shanghai from 2010 to 2015.



## Dr. Qingxia (Jenny) Wang

Dr. Wang is a Lecturer and Australian Research Council (ARC) Industry Fellow at the University of Southern Queensland (UniSQ). She has a multidisciplinary education and research background in engineering, accounting, and finance/economics. Dr. Wang also has extensive industry experience in the banking and real estate sectors. She has collaborated broadly with government authorities, professional parties, and research institutions/universities.

Dr. Wang's current research interests include sustainable/climate finance, carbon risk and disclosure, Environmental, Social, and Governance (ESG), and innovative financial tools. The ARC project aims to customise weather index insurance (WII) with advanced techniques. WII is a risk management tool in the agriculture sector to transfer risk due to extreme weather events. This project expects to establish an accurate correlation between insurance payouts and actual losses and thus improve the WII uptake rate. This will effectively support farmers and agribusinesses in mitigating and adapting to climate change, helping reduce the impact of climate change, and ensuring crop production and food security.

# Building Future Research Capacity

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## Emerging Researchers Study Tour

### Gansu and Shaanxi Provinces

14-18 October 2024

The Exchange Study Tour will invite emerging researchers to travel to China to gain valuable insights into China's agricultural practices, innovations, and industry challenges. In addition to attending the forum at Lanzhou University, the tour will include site visits and meetings across the Gansu and Shaanxi provinces with the support of Lanzhou University and Northwest A&F University. This exciting program seeks to establish long-term links between Australia and China and enhance the participants exposure to cutting edge developments and global perspectives in agriculture.

**Project Partners:** Lanzhou University and Northwest A&F University

**Project Coordinators:** Joshua Langdon and Mengyin Li

## Participants

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### Yiyi Xiong

**Research Focus:**

Pre-Visual Common Root Rot Disease Detection in Wheat Using NIR Spectroscopy and UAV-Based Multispectral Imagery

### Cameron Leckie

**Research Focus:**

Investigating the Spatial Variability of Infiltration in Dryland Cropping Systems

### Fynn De Daunton

**Research Focus:**

Regional Sustainability

### Shahmir Janjua

**Research Focus:**

Integrating WEAP, Agent-Based Modelling, and Nash Bargaining for Sustainable Agricultural Water Management and Conflict Resolution

### Hari Pandley

**Research Focus:**

Environmental Justice in Ecological Resettlements in Nepal