



Australia and New Zealand  
Regional Science Association International  
42<sup>nd</sup> Annual Conference



**CONFERENCE  
PROGRAM**

ANZRS AI welcomes participants to its 42<sup>nd</sup> annual conference, hosted this year in the Hedley Bull building at the Australian National University in Canberra. The core theme for this year's conference focuses on:

**REGIONAL DEVELOPMENT: POLICY,  
RESEARCH AND ENGAGEMENT**

**(ANU, CANBERRA, 5-7 DECEMBER 2018)**

ANZRS AI is pleased to acknowledge our conference sponsors.



**Australian Government**

**Department of Infrastructure, Regional Development and Cities**

Bureau of Infrastructure, Transport and Regional Economics



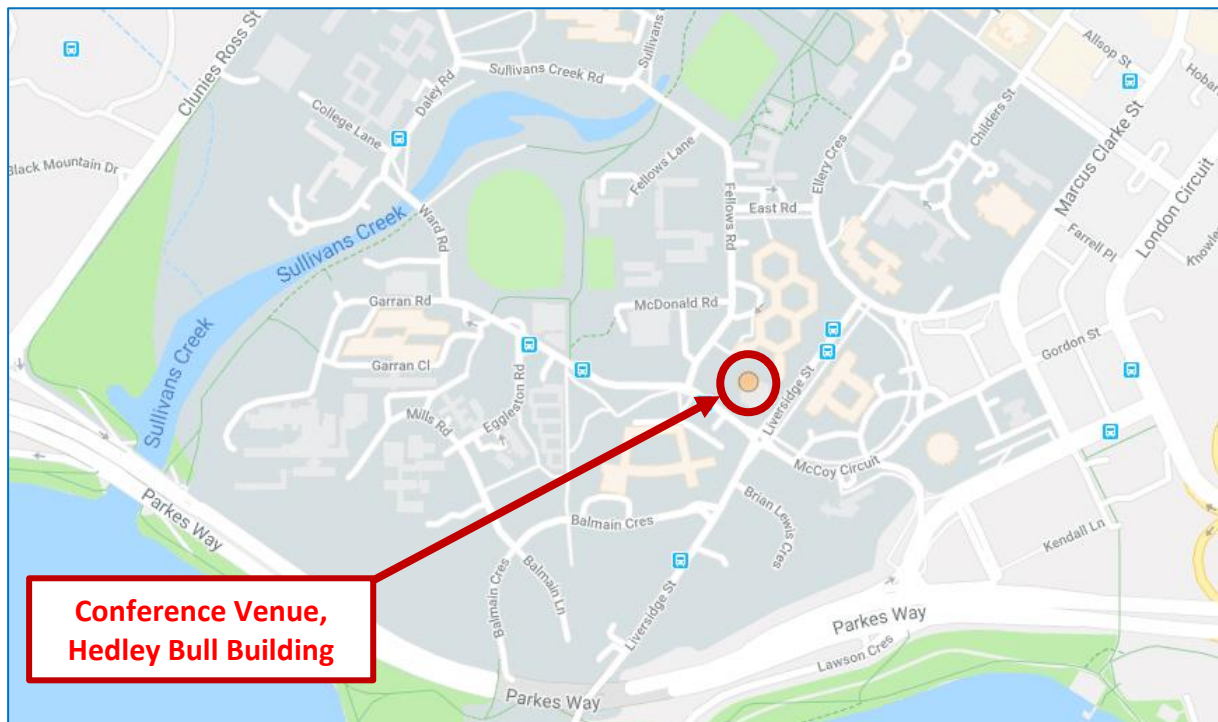
Lincoln University



**ARNDT-CORDEN DEPARTMENT OF ECONOMICS**  
Crawford School of Public Policy  
ANU College of Asia & the Pacific



## ANU CAMPUS MAP



Source: <http://www.anu.edu.au/maps#>.

## PRESIDENT'S RECEPTION AND CONFERENCE DINNER

There are two social events requiring paid tickets. If you would like to purchase a ticket, please see Paul Dalziel or make an enquiry at the registration desk.

The first day of the conference concludes with a reception co-hosted by the President of ANZRSAl. This will take place in the **Garden of the Fellows Bar and Cafe, University House**, which is a close walk from the Hedley Bull building. It will begin following the conclusion of the third keynote address at 5:30pm.

The conference dinner is on the evening of Thursday 6th December, in the **Common Room, University House**, beginning with pre-dinner drinks at 6:00pm. The conference dinner will include presentations of the ANZRSAl Awards, sponsored by the Bureau of Infrastructure, Transport and Regional Economics.

## PLEASE TAKE CARE OF VALUABLE POSSESSIONS

Please be aware that the ANU buildings are generally open to the public, and the ANZRSAl conference does not have exclusive use of the venue. Please do not leave valuables in the rooms during breaks.

## WELCOME FROM THE PRESIDENT

This year is the 42<sup>nd</sup> Annual ANZRSI Conference and I am delighted that we are returning to Canberra for this event.

I am grateful to Yogi Vidyattama from NATSEM at the Institute of Governance and Policy Analysis, University of Canberra, and to Budy Resosudarmo at the Arndt-Corden Department of Economics, Australian National University for their outstanding work to host the conference at the Australian National University, and to organise an exciting program of keynote speakers. This will be a conference with something for everyone that has an interest in regional policy and practice.

The core theme of our conference is *Regional Development: Policy, Research and Engagement*. The theme reflects the widespread interest in regional policy which has been reflected, for example, in the 2017 review of Regional Development Australia Committees, the House of Representatives Enquiry into Regional Development and Decentralisation, and the Transitioning Regional Economies study by the Australian Productivity Commission.



Among other publication opportunities, participants are welcome to submit their paper presented at the conference to the *Australasian Journal of Regional Studies*.

Our annual conference is an opportunity to renew old friendships and forge new ones. I extend a particularly warm welcome to the many people who have travelled a long distance to participate in the conference, as well as those enrolled in postgraduate research or who have recently completed your degree.

I wish all of you an enjoyable and fruitful conference.

Rolf Gerritsen  
*ANZRSI President, 2018*

## CONFERENCE ROOMS

The plenary sessions are taking place in Hedley Bull Lecture Theatre 1. In parts of the program involving two sessions (the workshops and panels), the conference will use Hedley Bull Lecture Theatre 1 (LT 1) and Hedley Bull Seminar Room 3 (SR 3). In the three contributed papers sessions, we will use both those rooms and Coombs Extension Lecture Theatre 1.04 (LT 1.04), which is in the building adjacent to the Hedley Bull building.

## The Keynote Speakers

### DR GARY DOLMAN

#### (BUREAU OF INFRASTRUCTURE, TRANSPORT AND REGIONAL ECONOMICS)

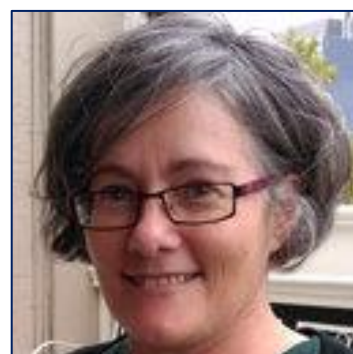


Dr Gary Dolman is the Head of the Bureau of Infrastructure, Transport and Regional Economics (BITRE), a position he has held since October 2007. BITRE is part of the Department of Infrastructure, Regional Development and Cities, based in Canberra. It provides economic analysis, research and statistics on infrastructure, transport and regional development issues to inform both Australian Government policy development and wider community understanding. Dr Dolman will give a keynote address that focuses on recent regional research undertaken within the Bureau.

### DR FIONA MCKENZIE

#### (DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING)

Dr Fiona McKenzie is Principal Researcher in the Land Use and Population Research Branch of the Department of Environment, Land, Water and Planning in Melbourne. She completed a Master of Arts in Geography at the University of Melbourne, a Master of Science in Regional and Urban Planning Studies at the London School of Economics, and recently a PhD at the University of South Australia. Dr McKenzie was the author of the DELWP report published in 2016, *A Regional Career: Migration histories of professionals working in Bendigo, Victoria*. Her address will focus on professions in the regions.



### PAUL LINDWALL

#### (PRODUCTIVITY COMMISSION)



In December 2016, the Federal Government announced that it had provided the Productivity Commission with terms of reference to commence a study on the impact on regional economies of the national economy's transition away from the resources-led boom towards broader-based growth. The Commission's initial report was released in April 2017, and the final report *Transitioning Regional Economies* on 15 December 2017. Paul Lindwall has been a full-time Commissioner since the beginning of 2015, and was Presiding Commissioner for the study, which will be the topic of his address.



## PROFESSOR ROBERT TANTON (UNIVERSITY OF CANBERRA)

Professor Robert Tanton is Director of the National Centre for Social and Economic Modelling (NATSEM) at the University of Canberra. Robert is a recognised international expert on spatial disadvantage, which is his main research field. Robert also leads work using a spatial microsimulation technique to derive small area estimates of many indicators of disadvantage and wellbeing. This technique has been used to derive small area estimates of poverty and housing stress; and small area estimates of subjective wellbeing and indigenous disadvantage. He will speak on “How Has Modelling Contributed to Regional Science, and How Can It Contribute in the Future?”.



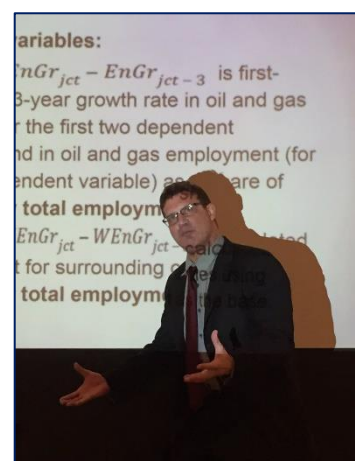
## PROFESSOR CAROLINE SAUNDERS, ONZM (LINCOLN UNIVERSITY)



Professor Caroline Saunders has been the Director of the AERU (Agribusiness and Economics Research Unit) at Lincoln University since 2002. She is currently the President Elect of the Agricultural Economics Society in the UK, and was the recipient of the NZIER Economics Award in 2007. She is co-author of *Wellbeing Economics: The Capabilities Approach to Prosperity*, published by Macmillan Palgrave in September 2018. Professor Saunders has led several research programs on agri-food global value chains, which are important for regional development in rural areas. This will be the theme of her address.

## PROFESSOR MARK PARTRIDGE (OHIO STATE UNIVERSITY)

Professor Mark Partridge holds the C. William Swank Chair of Rural-Urban Policy at The Ohio State University, working in its Department of Agricultural, Environmental, and Development Economics. He has published over 125 peer-reviewed journal papers, and he has been described as the most influential author currently working in the field of regional science. Much of his research continues to examine how economic shocks affect local communities and their regions, including regions that have a strong mining industry. Another theme is how policy can mitigate the negative impacts of income inequality and poverty on the economy and wellbeing. His address is on the natural resources curse and sustainable economic development.



## The Workshops

### EFFECTIVENESS OF PLACE-BASED TRANSITION PACKAGES

**CHAIR: KYLIE BOURNE**

**WEDNESDAY, 11:00AM – 12:30PM, HEDLEY BULL LECTURE THEATRE 1**

This session discusses a collaborative research project undertaken between researchers from the Regional Australia Institute, the University of South Australia and Southern Cross University. The starting point is recent criticisms of place-based transition packages, including the recommendation by Australia's Productivity Commission to discontinue them. While such a recommendation correctly points to an absence of robust and long-term evaluations of packages, and express concerns on the design and transparency of their delivery, they offer little practical help to policy makers on better approaches to managing what are recurring and legitimate socioeconomic issues in the Australian economy. This research addresses this gap.

Utilising various methodologies including case studies and a comprehensive systematic analysis, this session examines important considerations about 'place' and 'effectiveness' that can inform approaches to transitioning regions in Australia. The presentations feature an overview of a systematic analysis conducted by the University of South Australia, discussion of in-depth case studies by Southern Cross University and reflections on practical considerations for policy makers by the Regional Australia Institute. Participants include Professor Andrew Beer (UniSA), Professor Al Rainnie (UniSA), Associate Professor Michael Charles (SCU), Dr Michelle Olivier (SCU), Ms Nancy Spork (UniSA) and Dr Kylie Bourne (RAI).

### REGIONAL RESEARCH CENTRES PLANNING

**CHAIR: ROBYN EVERSOLE**

**WEDNESDAY, 11:00AM – 12:30PM, HEDLEY BULL SEMINAR ROOM 3**

Regional Research Centres (RRCs) are place-based, university-affiliated institutions with a local or regional development mandate. They create a point of engagement between 'university' and 'region' and aim to support practical sustainable development outcomes. As institutional spaces focused on learning and knowledge production across all dimensions of the 'quadruple helix', RRCs can be significant institutions for catalysing sustainable regional development. Nevertheless, the varying regional development practices and impacts of Regional Research Centres are not well documented or shared to enable mutual learning or policy advocacy.

The Sustainable Regions Applied Research Network is an emerging network of Regional Research Centres in Australia (14 to date), Chile (14) and Argentina (16) exploring common research interests in how university-based regional research groups can support practical regional outcomes. The Chilean Network met in Santiago on 1 August 2018 to commit formally to collaborative work with each other and with overseas partners. The Argentinean network met in Villa Maria on 28 August and committed to joint work. This workshop is a meeting of the Australian Network to establish the Network formally and to identify concrete actions for 2019. We invite all representatives of regional research centres and groups to join us.

## The Panels

### **NATIVE TITLE AND CARBON RIGHTS IN AUSTRALIA**

**CHAIR: MIKE HEFFERAN**

**THURSDAY, 1:30PM – 2:30PM, HEDLEY BULL LECTURE THEATRE 1**

The Mabo and Wik decisions of the Australian High Court are almost two decades old. They have faded from prominence, with their relevance apparently restricted to more remote areas. In parallel, and in about the same timeframe, environmental issues such as carbon rights have ebbed and flowed with government and community interests in environmental management. Neither issues have ‘gone away’, however, and many would see their likely resurgence given the profile of aboriginal issues and, separately, energy policies. Both areas have obvious implications, both positive and negative, on development across much of regional Australia. This panel aims to provide a timely update on where these debates and government policies now stand and how a more proactive approach at a regional level may highlight opportunities and minimise the challenges ahead. Participants include Jude Mannix, Andrea Blake and Mike Hefferan.

### **REGIONAL ISSUES IN AUSTRALIA**

**CHAIR: ROBERT STIMSON**

**THURSDAY, 1:30PM – 2:30PM, HEDLEY BULL SEMINAR ROOM 3**

This panel aims to address some key regional issues in Australia, chaired by RSAI Fellow, Professor Robert Stimson. The first presenter will be Jack Archer, who has worked with the Regional Australia Institute since its inception in 2012, and was appointed Chief Executive Officer in July 2015. Jack will discuss some recent research by the Regional Australia Institute. The second presentation will be by Lee Pugalys (Professor of Urban Studies, UTS) and Karen Howarth (Associate Director, Commercial and Economic Group, NSW Department of Premier and Cabinet) on the approaches that have been taken to defining 38 Regional Economic Development Strategies (REDS) across all of regional New South Wales. Professor Tony Sorensen and Professor Paul Dalziel have been asked to respond before a general discussion.

## CONFERENCE TIMETABLE

### Wednesday 5 December

<b>8.30am</b>	<b>Registration Desk Opens</b> <b>Hedley Bull Foyer</b>	
<b>9.30am</b>	<b>Welcome to the Conference</b> Chair: Rolf Gerritsen  Welcome from ANZRSAI (Rolf Gerritsen, ANZRSAI President)  Welcome to Canberra (Yogi Vidyattama)  Welcome to ANU (Budy Resosudarmo)	<b>Hedley Bull LT 1</b>
<b>10.00am</b>	<b>First Keynote Address</b> Chair: Delwar Akbar  Gary Dolman <i>Insights from Emerging Spatial Data Sources</i>	<b>Hedley Bull LT 1</b>
<b>10.30am</b>	<b>MORNING TEA</b>	
<b>11.00am</b>	<b>Two Workshops</b>  <b>Workshop 1: Effectiveness of Place-Based Transition Packages</b> Chair: Kylie Bourne	<b>Hedley Bull LT 1</b>
	<b>Workshop 2: Regional Research Centres Planning</b> Chair: Robyn Eversole	<b>Hedley Bull SR 3</b>
<b>12.30pm</b>	<b>LUNCH</b>	
<b>1.30pm</b>	<b>Parallel Sessions 1 (Three Streams)</b>	
<b>3.00pm</b>	<b>AFTERNOON TEA</b>	
<b>3.30pm</b>	<b>Second Keynote Address</b> Chair: Tony Sorensen  Fiona McKenzie <i>Professions in the Regions.</i>	<b>Hedley Bull LT 1</b>



<b>4.30pm</b>	<b>Third Keynote Address</b> Chair: Budy Resosudarmo  Paul Lindwall <i>Productivity Commission Study: Transitioning Regional Economies.</i>	<b>Hedley Bull LT 1</b>
<b>5:30pm</b>	<b>President's Reception</b>  <b>Garden of the Fellows Bar and Cafe, University House</b>	

## Thursday 6 December

<b>8.30am</b>	<b>Registration Desk Reopens</b>	
<b>9.00am</b>	<b>Fourth Keynote Address</b> Chair: Bruce Wilson  Caroline Saunders <i>Agri-food Value Chains for Rural Regions</i>	<b>Hedley Bull LT 1</b>
<b>10.00am</b>	<b>MORNING TEA</b>	
<b>10.30am</b>	<b>Parallel Sessions 2 (Three Streams)</b>	
<b>12.30pm</b>	<b>LUNCH</b>	
<b>1.30pm</b>	<b>Two Panels</b>  <b>Panel 1: Native Title and Carbon Rights in Australia</b> Chair: Mike Hefferan	<b>Hedley Bull LT 1</b>
	<b>Panel 2: Regional Issues in Australasia</b> Chair: Robert Stimson	<b>Hedley Bull SR 3</b>
<b>2.30pm</b>	<b>Fifth Keynote Address</b> Chair: Lee Pugalís  Robert Tanton <i>How Has Modelling Contributed to Regional Science, and How Can It Contribute in the Future?</i>	<b>Hedley Bull LT 1</b>
<b>3.30pm</b>	<b>AFTERNOON TEA</b>	
<b>4:00pm</b>	<b>The Future of ANZRSAl (Open Discussion)</b> Chair: Rolf Gerritsen (ANZRSAl President)	<b>Hedley Bull LT 1</b>
<b>4:45pm</b>	<b>ANZRSAl AGM</b>	<b>Hedley Bull LT 1</b>

**6.00pm**      **Conference Awards Dinner**      **Common Room, University House**

We thank the Bureau of Infrastructure, Transport and Regional Economics for sponsoring the Awards at the dinner.

## Friday 7 December

**8.30am**      **Registration Desk Reopens**

**9.15am**      **Parallel Sessions 3 (Three Streams)**

**10.45am**      **MORNING TEA**

**11.15am**      **Concluding Keynote Address**      **Hedley Bull LT 1**  
Chair: Yogi Vidyattama

Mark Partridge  
*Natural Resources Curse and Sustainable Economic Development*

**12.15pm**      **Formal Close of Conference**  
Rolf Gerritsen, ANZRSI President.

## CONTRIBUTED PAPERS PARALLEL SESSIONS

	<b>Stream A Hedley Bull LT 1</b>	<b>Stream B Hedley Bull SR 3</b>	<b>Stream C Coombs Extension LT 1.04</b>
<b>Sessions 1 Wednesday 1.30-3:00</b>	Regional Development Strategies	Housing Issues and Regional Inequality	Transport and Trade
<b>Sessions 2 Thursday 10:30-12.30</b>	Regional Policy: Session I	Regional Demographic Issues	Regional Industry Issues: Session I
<b>Sessions 3 Friday 9.15-10.45</b>	Regional Policy: Session II	SMEs in Regions and the Knowledge Economy	Regional Industry Issues: Session II

## Parallel Sessions 1

### Wednesday 5 December, 1:30pm–3:00pm

#### **Session 1A      Regional Development Strategies**

**Chair:**      Robyn Eversole

**Location:** Hedley Bull LT 1

**BEER, Andrew, Laura Hodgson, Allan O'Connor and Marianna Sigala**

*Big Data, New Technologies and Advancing Urban and Regional Development Strategies*

**EVERSOLE, Robyn, Tony Sorensen and Lee Pugalys**

*Regional Agility: A Preliminary Framework for Cultivating Future-Ready Regions*

**HERATH, Shanaka, Alistair McIlgorm, Michelle Voyer and Charles Harvie**

*Taking Stock of the Blue Economy (BE): Reviewing the Industries Contributing to the BE in Australia*

#### **Session 1B      Housing Issues and Regional Inequality**

**Chair:**      John Martin

**Location:** Hedley Bull SR 3

**STIMSON, Robert**

*Is There Really a Housing Affordability Crisis in Australia, and If So, What is Causing It?*

**MARTIN, John**

*Ontological Perspectives in Australian Local Government: Insights from Housing Research*

**DREW, Joseph**

*Regional Inequality: Is It Important? Why Does it Occur? And How Can It Be Addressed?*

#### **Session 1C      Transport and Trade**

**Chair:**      Vince Mangioni

**Location:** Coombs Extension LT 1.04

**NAUDÉ, Cliff**

*Using Road Freight Movement Survey Data to Estimate Road Freight Transport Quotients and Regional Road Freight Flows in Australia*

**MANGIONI, Vince**

*The Use of Value Capture in Co-funding High Speed Rail: Lessons from Hong Kong and Mainland China*

**KHWAJA, Muddasar Ghani, Ahmad Jusoh and Khalil MD Nor**

*Does Cross-Franchising Affect Regional Development? Evidence from Emerging Consumer Markets*

## Parallel Sessions 2

### Thursday 6 December, 10:30am–12:30pm

**Session 2A      Regional Policy: Session I**

**Chair:      Kylie Bourne**

**Location: Hedley Bull LT 1**

**RICHTER, Max**

*Multi-sited Ethnography of Development Initiatives in Regional Indonesia and Australia*

**NIKIJULUW, Ruth**

*Fiscal Policy Interdependence across Local Governments in Indonesia*

**HOUGHTON, Kim, Hayley Achurch and Kylie Bourne**

*Research and Policy: Non-linear Interactions*

**Alistair Robson and Robert J. STIMSON**

*The Changing Endogenous Employment Performance of Australia's Five Big Cities since the Mid-1990s*

**Session 2B and Session 2C are on the following page.**

## Parallel Sessions 2 (Continued)

### Thursday 6 December, 10:30am–12:30pm

#### **Session 2B      Regional Demographic Issues**

**Chair:**      John Madden

**Location:** Hedley Bull SR 3

**IKAZAKI, Daisuke**

*Childlessness and Agglomeration in a Two Region Model*

**Nhi H. Tran, E. Louise Roos, James A. Giesecke and John MADDEN**

*Diverting Migrants to the Regions: Can It Encourage Regional Development and Ease the Growth Pressures on Australia's Big Cities?*

**Rossita M. Yunus and Azizur RAHMAN**

*Factors Associated with Nutritional Status of Children in Low and Middle Income Countries in Southeast Asia – A Multilevel Analysis*

**NAITO, Tohru**

*Secession and Distribution of Natural Resources*

#### **Session 2C      Regional Industry Issues: Session I**

**Chair:**      Fariba Ramezani

**Location:** Coombs Extension LT 1.04

**HAQUE, Mst Sabrina, Delwar Akbar and Susan Kinnear**

*Assessing the Impacts of Extreme Weather Events on Fruit Production in Central Queensland, Australia: A Time-Series Approach*

**RAMEZANI, Fariba, P. Perez, R. Wickramasuriya, N. Huynh and B. Du**

*Western Sydney Growth and Illawarra's Regional Development Implications*

**Bafarasat, Abbas Ziafati and Lee PUGALIS**

*The Governance of Metropolitan Regions: Governmental-Business Interactions*

**MARDANEH, Ken Karim, Jerry Courvisanos and Ameeta Jain**

*Regional Economic Resilience, Adaptive Cycle Patterns and Policy Implications: Australian Case from 1986 to 2011*



## Parallel Sessions 3

### Friday 7 December, 9:15am–10:45am

#### **Session 3A      Regional Policy: Session II**

**Chair:**      **Bruce Wilson**

**Location:** Hedley Bull LT 1

**LABAŠ, Alan and Jerry Courvisanos**

*Government Business Programs and Regional Business Knowledge Transmission by Professional Business Advisors*

**WILSON, Bruce, Lars Coenen, Leo Goedegebuure, Marian Schoen, Emma Shortis and Caroline Veldhuizen**

*Entrepreneurial Discovery as Policy Engagement*

**Dewhurst, Chris, Bligh GRANT and Lee Huuskes**

*Party Politics and Local Government in Australia: Implications of the Metropolitan-Regional Divide*

#### **Session 3B      SMEs in Regions and the Knowledge Economy**

**Chair:**      **Paul Dalziel**

**Location:** Hedley Bull SR 3

**FALENTINA, Anna T. and Budy P. Resosudarmo**

*Digitalisation and the Performance of Micro-, Small Enterprises: A Case Study in Yogyakarta, Indonesia*

**TULI, Sajeda, Lawrence Pratchett, Richard Hu and Michael Walsh**

*Future of Work and Growth of the Knowledge Economy in Australian Cities and Regions*

**ALAM, Khorshed**

*Does e-Innovation Influence Levels of Performance among Small and Medium Enterprises in Regional Australia?*

#### **Session 3C      Regional Industry Issues: Session II**

**Chair:**      **Rolf Gerritsen**

**Location:** Coombs Extension LT 1.04

**INUSAH, Fuseini, Parves Sultan, Delwar Akbar and John Rolfe**

*Can Social License Theory Explain the Relationship between Corporate Social Responsibility (CSR) and Community Engagement (CE)? The New Ghanaian Petrochemical Industry Context*

**GERRITSEN, Rolf**

*Can Regional Scientists Provide Answers? Let's Look at Australia's Northern Cattle Industry, Drought and Native Title*

**AKBAR, Delwar, John Rolfe, Megan Star, Jo-Anne Everingham and Susan Kinnear**

*Economic Returns of Transferring Post-coalmine Land to Grazing Land in the Bowen Basin: Is This a New Opportunity for Rural Development in Australia?*

## ABSTRACTS

**AKBAR, Delwar**  
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**Session 3C**

*Title: Economic Returns of Transferring Post-coalmine Land to Grazing Land in the Bowen Basin: Is This a New Opportunity for Rural Development in Australia?*

Co-authors: John Rolfe, Megan Star, Jo-Anne Everingham and Susan Kinnear

*Abstract:* Most coalmines in the Bowen Basin of Queensland, Australia are at a mature stage. A number of these coalmines have been rehabilitating their mined land progressively with a view to relinquishing their mining leases once production finishes. The original land use of most mining leases in the Bowen Basin was grazing. Some studies have found that transferring such post-coal mine land to its original use of grazing was the most acceptable land use option in the eyes of local landholders. However, the actual costs and benefits for the future landowner are unknown. This study examines the direct costs of land ownership and grazing, as well as the direct benefits from beef production in the Bowen Basin region. The study found that the expected return is between \$97 and \$253/ha/year. This is the net return, broadly equivalent to average revenues less average operating costs. The implications of these estimates are that if post-mining land could be perfectly returned to grazing capability with no additional management requirements or caveats on the title, it would generate increased agricultural production and contribute to rural development in mining regions of Australia.

**ALAM, Khorshed**  
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**Session 3B**

*Title: Does e-Innovation Influence Levels of Performance among Small and Medium Enterprises in Regional Australia?*

*Abstract:* Previous studies on the performance–innovation nexus among small and medium enterprises (SMEs) did not disaggregate the results, but generalised them to all levels of SME performance. In this study, we disaggregated performance per percentiles by employing Quantile Regression (QR). Our findings indicate that there is a significant difference between the levels of SME performance based on the factors influencing their performance. Although no significant difference was found between low and high performing SMEs regarding digital readiness, the best performers were influenced by an e-commerce index. Interestingly, firms with an information and communication technology strategy, predominantly in the non-agricultural sectors, scored lower on the index. The major contributions of this study are that the performance–innovation relationship differs by the levels of SME performance, and Solow's productivity paradox exists at the firm level. We recommend that rural policies should target low performing firms and researchers should adopt QR in elucidating the differences in the performance–innovation nexus.

**BEER, Andrew**  
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**Session 1A**

*Title: Big Data, New Technologies and Advancing Urban and Regional Development Strategies*

Co-authors: Andrew Beer, Laura Hodgson, Allan O'Connor and Marianna Sigala

*Abstract:* Over the past decade there has been an increasing focus on the potential of 'big data' to drive social and economic innovation. New types of data, made possible by the 'Internet of Things', the rise of smartphones and the use of computerised systems in almost every part of daily life, have the potential to provide answers to questions that were previously too expensive or too difficult to answer. This paper considers examines the use of big data to provide better insights to economic development practitioners in Australia on the impact of their policies and programs. It reviews the current literature on the topic, developments in other nations and recent trends in social media and fee-for-service platforms. The paper reports of focus groups with practitioners and their potential to both integrate these new information sources into their programs of work, and drive more effective strategies.

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**Session Panel 1**

*Title: Opportunities and Issues Surrounding Carbon Sequestration for Rural Landholders*

*Abstract:* Carbon emissions trading has been identified as one of the mechanisms to satisfy national emissions reduction targets. A recognised method of storing carbon for emissions trading is through the establishment of carbon sinks in vegetation, particularly forestry. There may be a significant opportunity for freehold or leasehold landholders to develop an alternative and sustainable income stream through establishing carbon rights over their land. When undertaken strategically there is also the opportunity to have this income stream sit alongside and even enhance more traditional agricultural pursuits. Establishing carbon income streams can mean a significant financial investment and consequently a level of security of investment or tenure is required. The recognition of carbon as a property right has provided security for this interest in land. There are a variety of ways carbon rights may be recognised within the legal system from a more traditional profit a prendre to recognition as a new and novel property right such as a Carbon Abatement Interest. Like native title rights, carbon rights create another level of complexity to rural and regional land holdings. The complexity of carbon has been explored in academic contexts but the practical application of these rights in Australia is limited as is a comprehensive understanding by many stakeholders including professionals practicing in this area. This paper uses Queensland as a case study to explore the nature of carbon rights and the opportunities and risks associated with investment in carbon rights for the freehold or leasehold land owner.

**DREW, Joseph**  
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**Session 1B**

*Title: Regional Inequality; Is It Important? Why Does it Occur? And How Can it be Addressed?*

*Abstract:* Regional inequality is generally taken to refer to spatially distributed disparities in spending capacity, ability to consume non-public services, access to public services, and ability to consume natural resources. Despite being a topical matter in the international literature there is a paucity of contemporary analysis in an Australian context. We outline a number of metrics that can provide us with a sense of how grave the inequality situation in Australia has become. Following this we analyse the sources of inequality with a particular emphasis on government policy and institutions. This leads us to propose a number of innovative policy changes that could address the problem, given sufficient political will. In particular, we call for the introduction of equality statements for all major policy and institutional changes, to provide a counterweight to the business case methodologies that currently inform most political decision-making.

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**Session 1A**

*Title: Regional Agility: A Preliminary Framework for Cultivating Future-Ready Regions*

Co-authors: Tony Sorensen, and Lee Pugalis

*Abstract:* Rapid and transformative technological change – variously termed the Fourth Industrial Revolution (4IR), or Second Machine Age (2MA) – raises urgent questions about future livelihoods. Current regional development policy, still largely designed from the top-down, is doing little to facilitate long-term transition for rural and resource-based regions. There is a need for a regime change in regional development: new approaches that cultivate the ability of diverse regional communities to navigate complexity and uncertainty, understand the potential of new technologies in their local contexts, and operate creatively and proactively to ‘take change of change’. The Regional Leadership Project is a new research initiative that explores what is required to enable creative and adaptive regional development leadership in regions beyond the capital cities. We seek to understand the characteristics of future-ready, agile local leadership, and what enables or constrains its development. This paper proposes a new vision for regional development policy, and a preliminary framework of the dimensions that could be used to understand, assess and actively cultivate regional agility, with attention to cultural, institutional, and power dynamics within and beyond the region.

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**Session 3B**

*Title: Digitalisation and the Performance of Micro-, Small Enterprises: A Case Study in Yogyakarta, Indonesia*

Co-author: Budy P. Resosudarmo

*Abstract:* The world is going digital, including in Indonesia. Little is known about how digitalisation affects the performance of micro-, small enterprises (MSEs), one of the major foundations of the Indonesian economy. This paper examines the impact of internet adoption on firm performance, and explores the extent of digitalisation among MSEs in Indonesia. We conducted MSE survey in Yogyakarta, home to more than 55% of Indonesian people. We find that the ICT has enabled MSEs to engage in the digital economy and improved their performance. Internet utilisation increases labour productivity and exports. We also observe digital divides between internet adopters and non-adopters. Furthermore, the utilisation of the internet for business activities is dominated by social media use, while the proportion of those with websites or e-commerce is very low. Hence, this study supports the argument that digital economy, represented by the access and the use of ICT, has significant potential to contribute to development and inclusiveness by expanding trade opportunities. Evidence this study finds is expected to induce a strong justify to develop public policies aiming at boosting internet availability as well as fostering firms' use of the internet.

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**Session 3C**

*Title: Can Regional Scientists Provide Answers? Let's Look at Australia's Northern Cattle Industry, Drought and Native Title*

*Abstract:* This paper engages in some whimsical speculation about policy-making in remote/northern Australia. It takes as its central point the northern cattle industry. This industry is, mainly, marginally profitable. Participation in the industry cannot be solely interpreted as the outcome of orthodox economics' profit-maximising individuals. One of the problems that periodically besets the industry is the problem of drought. So we use that as a case study of industry behaviour. The other case study we use is the evolving issue of native title as the full implications of the High Court's Mabo decision play out. We reach the conclusion that policy is adaptive, possibly not rational (from some perspectives) and very "political" as different groups seek to secure and control government action.



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**Session 3A**

*Title: Party Politics and Local Government in Australia: Implications of the Metropolitan-Regional Divide*

Co-authors: Chris Dewhurst and Lee Huuskes

*Abstract:* Local government and state-local government relations across Australia continue to be sites of robustly contested reforms. Both scholarly and media attention perennially focus upon key types of reforms, most saliently [i] structural reform (or its threat) of whole jurisdictions or metropolitan regions; [ii] cost-shifting or ‘unfunded mandates’; [iii] enduring questions of the financial sustainability of local government; and [iv] changes to arrangements for appointed and elected leaders. Recent research examining party-political affiliation in local government in New South Wales revealed a marked increase in *party-politicisation*, particularly in metropolitan areas, accompanied by claims of political gerrymandering. This paper examines these results. Specifically, the declared party-political affiliation of candidates and elected representatives are compared with self-described ‘independent’ candidates for recent elections, mapped against the Australian Classification of Local Governments as a measure of regionalism. The implications are explored for: local government operations; state-local relations; and metropolitan and regional relations.

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**Session 2C**

*Title: Assessing the Impacts of Extreme Weather Events on Fruit Production in Central Queensland, Australia: A Time-Series Analysis*

Co-authors: Delwar Akbar and Susan Kinnear

*Abstract:* Extreme weather events (EWEs) pose potential threats to agribusinesses, households and the community, by changing resource availability, supply chain patterns and even the behaviours of consumers and shareholders. This is particularly the case for food chains based on crops vulnerable to extreme weather. The Central Queensland region has experienced several EWEs since 1999, yet the impacts of these events on local food production chains have not been examined in detail. To address this gap, this study examines the impact of EWEs on the production of three tropical fruits (pineapple, mango and lychee) in Central Queensland. Using a polynomial regression model the research found that flood events moderately affected mango production, but were associated with very little effect on pineapple and lychee production. These findings are important in improving understanding of the linkages between extreme events and food production. However, the results should be interpreted with caution given that this case study was limited to localised flood data, rather than using comprehensive modelling of regional rainfall and other variables, which would better reflect the geography of the fruit production areas.

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**Session Panel 1**

*Title: So Whatever Happened to Native Title? ... Ongoing Implications for Property Dealings in Regional Australia*

Co-author: Jude Mannix

*Abstract:* The High Court Mabo decision recognising Native Title rights in Australia was handed down over 25 years ago. For most, it is no longer a matter for attention. Assumed largely resolved, claimants, government bureaucrats and solicitors are left to process specific claims and dealings. There are many situations, however, for government (in property resumptions and the provision of infrastructure) or for the private sector (in certain investment and development projects) where the title corrections and dealings across public lands also require actions under native title legislation. In practice, regional areas in Australia are more likely to encounter such native title complications than urban areas due, in part, to the existence of large scale rural land holdings and significant tracts of unalienated crown land, where native title is not extinguished. This research identifies numerous cases where the current situation frustrates final settlement of regional projects and development. It suggests guideline frameworks and professional development programs to help resolve the current unacceptable situation that adversely affects all stakeholders, not least of all, traditional owners.

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**Session 1A**

*Title: Taking Stock of the Blue Economy (BE): Reviewing the Industries Contributing to the BE in Australia*

Co-authors: Alistair McIlgorm, Michelle Voyer and Charles Harvie

*Abstract:* The Blue Economy comprises a range of economic sectors and related policies that together determine whether oceanic resource use is sustainable. A widely implemented approach is to consider different sectors that 'make up' the Blue Economy. This 'taxonomic' approach is informed by a larger body of research aimed at quantifying the contribution of ocean and marine industries at global, national and regional scales including national accounts valuation of marine industries. Drawing on a recent research project, this paper reviews key international and Australian literature to compile a representative list of Blue Economy industries for Australia. Recognising the significance of partial ocean industries, narrow and broad groupings of industries are considered. Employment data are populated for the identified sub-industries using Australian Bureau of Statistics census databases, building a picture of significance of the Blue Economy in Australia. This research makes an important contribution by establishing the relevant key industries and proposing a dataset to provide crucial baseline information about the size of the Blue Economy in Australia by region.

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**Session 2A**

*Title: Research and Policy: Non-linear Interactions*

Co-authors: Hayley Achurch and Kylie Bourne

**Abstract:** In recent years, Australia has seen increasing demand for research to have impact outside of academia. On the other side of the coin, governments usually claim that they are building 'evidence based policy'. However, no single process exists for research to achieve impact and often there many non-linear, non-research interactions are at play. In this presentation, researchers from the Regional Australia Institute (RAI) outline lessons garnered from efforts to design research for policy impact and promote research to policy makers. We discuss recent experiences navigating the points at which research and policy impact interact as well as our developing an appreciation for the range of non-research influences on policy. These influences include timing within the policy cycle, constraints faced by bureaucratic mechanisms, political needs, standing out from a crowd of voices, as well as building and maintaining relationship. We also address the difficulties of tracking research influence measuring impact, and the need to be prepared as researchers not only for the size of the undertaking but also for the long haul of policy influence.

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**Session 2B**

*Title: Childlessness and Agglomeration in a Two Region Model*

**Abstract:** The fertility rates have been declining in many developed countries. Many economists have been trying to explain this phenomenon. Although many papers assume that all agents have children, the ratio of childlessness has been increasing. In this paper, we assume that there are two types of households: households that have children and those who do not have children. We construct a simple overlapping generations model and consider how a rise in childlessness rates affect the economic dynamics. Furthermore, we assume that there exist two regions (urban area and rural area) to reflect the fact that the fertility rates are different among regions and urbanization decreases the total fertility rate. First, we show that people who do not have children tend to migrate to the urban area and households who have children prefer to live in a rural area. As an economy develops, the ratio of households living in urban area increases. Then, it is shown that arise in the childlessness rates increase per capital-labor ratio in the steady state and decrease the total fertility rates. Child allowance policies are also considered. Such policies in an urban area cause urbanization and increase fertility rates in that area. However, the effects on total fertility rates are ambiguous because population decreases in the rural area where fertility rates are high.

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**Session 3C**

*Title: Can Social License Theory Explain the Relationship between Corporate Social Responsibility (CSR) and Community Engagement (CE)? The New Ghanaian Petrochemical Industry Context*

Co-authors: Parves Sultan, Delwar Akbar and John Rolfe

*Abstract:* Corporations are currently anticipated to engage communities via corporate responsibilities that are far from legal compulsion and profit intent to attracting goodwill. This originated CSR where corporate sponsorships are directed to interest communities for social acceptance. This study explores how social license theory can be extended in the new Ghanaian petrochemical industry context to improve corporate social engagement. Using interviews as the method of data collection, the purposive sampling method obtained 20 useable responses for this qualitative study. The study found that the Ghanaian oil companies are financially oriented with very little CSR intent as they take advantage of the CSR illiteracy of the community. What communities can do to supporting the social license process was also a prominent empirical question suggested for answers.

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**Session 1C**

*Title: Does Cross-Franchising Affect Regional Development? Evidence from Emerging Consumer Markets*

Co-authors: Ahmad Jusoh and Khalil MD Nor

*Abstract:* The elevation of sales and marketing performances are dependent upon the different sales promotional strategies. Cross-franchising or transshipment of products on the other hand, is a severe concern as it sabotages regional development of the consumer markets. The transshipment of products from one region to another greatly affects sales and marketing performances of the infiltrated region. The respective study tends to unfold different dimensions of trade sales promotions and measures dimensionally its effects on marketing performance. Since cross-franchising is anticipated to shake the entire working canvas of sales; therefore its moderating effect is being measured. Sample size of 258 respondents using survey questionnaires were distributed among the retailers and distributors of FMCG products sellers of Pakistan. Structural Equation Modelling (SEM) on MPlus software was conducted in order to determine causal relationships among the constructs. The statistical results attained affirmed the established theoretical foundations.

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**Session 3A**

*Title: Government Business Programs and Regional Business Knowledge Transmission by Professional Business Advisors*

Co-author: Jerry Courvisanos

*Abstract:* Based on research seeking to understand mechanisms affecting the provision of small business advisory services in a Regional Australian setting, by what are called Professional Business Advisors (PBAs), an emergent theme identifies government business programs and initiatives as significant conduits for regional business knowledge transmission. However, those programs and initiatives are also perceived to impose substantial constraints for PBAs providing services in regional communities, including issues of financial viability for PBAs, ineligibility of many regional small businesses to access government funded initiatives, capriciousness of government programs, and clashes between technology utilisation and infrastructure reliability in some non-metropolitan regional areas. Regional Australian PBAs service a heterogeneous collection of businesses across large geographic areas. Yet, the potential influence that these PBAs have in the process of knowledge transmission is severely constrained by current government programs aimed at start-up regional businesses and those pursuing organisational growth. This raises concerns that have regional policy implications.

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**Session 2B**

*Title: Diverting Migrants to the Regions: Can It Encourage Regional Development and Ease the Growth Pressures on Australia's Big Cities?*

Co-authors: Nhi Tran, Louise Roos and James Giesecke

*Abstract:* In the recent public debate in Australia over the level of migration and its consequences for public infrastructure in Australia's big cities where 85 per cent of migrants settle, new Prime Minister, Scott Morrison, has argued that the problem is not the level of migration, but rather the geographical pattern of settlement. He advocated a policy that would divert migrants to regional Australia with a requirement that they reside there for a mandated period. In order to examine the efficacy of such a policy, we conduct simulations with a 15-region computable general equilibrium model, which identifies workers by skill class, employment status, region, and visa status. The model captures intertemporal transitions between labour categories and the interaction between regional labour demand and supply in determining interregional migration and employment. An existing element of Australia's regional development policy is a system of preferential treatment in granting certain types of visas to migrants agreeing to work in non-metropolitan regions. We conduct simulations that, for these visa types, increase the migrant intake to the model's non-capital-city regions and restricts these migrants from moving regions for 5 years.



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**Session 1C**

*Title: The Use of Value Capture in Co-funding High Speed Rail: Lessons from Hong Kong and Mainland China*

*Abstract:* The idea of high speed and inland rail options across expanses of nations is not new, however what remains elusive is the funding required to operationalise this idea. With roads remaining the primary conduit for logistical distribution, the idea of rail as an alternate mode of long distance travel by road and air has been embraced in several Asian and European nations. This paper looks at the model used by the Mass Transit Rail Corporation in Hong Kong and Mainland China for funding rail as a means of achieving two objectives. The firstly objective is connecting cities with each other and secondly connecting regions and cities as a means of logistical freight distribution. While consolidated revenue remains the primary source for funding these projects, the use of value capture is now being employed in the cities and regions of China to fund this initiative. Using Hong Kong and Mainland China a case study, a framework is developed for funding rail development for freight distribution using value capture in Australia.

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**Session 2C**

*Title: Regional Economic Resilience, Adaptive Cycle Patterns and Policy Implications: Australian case from 1986 to 2011*

Co-authors: Jerry Courvisanos and Ameeta Jain

*Abstract:* This longitudinal study assesses resilience in the local government areas of Australia using Census data from 1986 to 2011, during which period there were multiple economic shocks including a recession in 1989-92, the dot.com bubble, the global financial crisis of 2007-8 and extreme weather conditions in Australia. Using the lens of a panarchy model and adaptive cycle, income change as a proxy for resilience it applies the k means algorithm to assess regional resilience. It finds that Metro-core regions demonstrate maximum resilience, and that no single region has remained resilient throughout the period. There is narrowing of the industry base, which has resulted in reducing resilience.

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**Session 1B**

*Title: Ontological Perspectives in Australian Local Government: Insights from Housing Research*

*Abstract:* The ARC funded project Local Government and Housing in Australia for the 21stC is working with local government partners across four states. The aims are: developing an understanding of the interplay between housing and local government in Australia in the 21st Century; mapping the governmental, demographic and economic processes currently reshaping that relationship; identifying new ways in which local governments – and the communities they represent – can meet their housing aspirations; and developing a suite of policies and actions for use by local governments across Australia in metropolitan, rural and regional settings. The project has undertaken a national survey of local governments regarding their approach to local housing based on the initial research with council research partners. Subsequent in-depth discussions with these councils has revealed the different ontological perspectives held by local government councillors and officers as to the range of initiatives they can take to ensure fit-for-purpose housing. These can be contrasted between housing as a ‘product’ and housing as a ‘community commitment’. The paper outlines the different policies and practices of a large, rapidly developing coastal council with those of a small, relatively remote rural council with an ageing population to explain this dichotomy. These findings have implications for local and state governments as they cooperate to develop policies for fit for purpose housing in local communities.

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**Session 2B**

*Title: Secession and Distribution of Natural Resources*

*Abstract:* This study uses a simple theoretical model to present analyses of a secession relation and the distribution interests of natural resources. A severe difficulty is the decreasing effect of population. As Krugman (1991), Ottaviano, Tabuchi, and Thisse (OTT2002), and other core-periphery models demonstrate, a decrease in population presents some difficulties for secession in terms of variety, economies of scale, and home market effects. Consequently, the population decrease taking place in the minor region suppresses incentives for minor areas to be independent from the home country. Similarly to the minor region, the major region might also sustain damage because of declining population with secession. Secondly, the minor region can presumably attract interest in natural resources located non-uniformly in particular regions, which increase the incentive of a minor region to secede from the home country. These effects have a mutual tradeoff relation. A minor region will choose secession from the home country or not after considering this tradeoff relation.

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**Session 1C**

*Title: Using Road Freight Movement Survey Data to Estimate Road Freight Transport Quotients and Regional Road Freight Flows in Australia*

*Abstract:* Australia comprises states of varying climates, natural resource endowments, geographic area and population size. This has resulted in a diversity of regional or state economies, regional road freight flows and road networks to serve these needs. This paper first examines the concept of location quotients in terms of its theoretical basis. It then applies the concept to Australian Bureau of Statistics 2014 Australian Road Freight Movements survey data to calculate “road freight transport” quotients across states in Australia in terms of tonnes and tonne-km, by state of origin-destination and for different commodity types. Origin and destination flows are then compared to determine the extent to which the different states are “outward-orientated” in terms of the direction of flows and in what types of goods. Finally, the paper also explores implications of the study for policy analysis as well as future uses of the data, taking account of issues regarding the reliability of the survey data.

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**Session 2A**

*Title: Fiscal Policy Interdependence across Local Governments in Indonesia*

*Abstract:* This paper contributes to the empirical debate on spatial interaction in fiscal policy decisions at local government level. It has two aims: to investigate the presence of spatial interdependencies in the local public expenditure decision process; and to investigate whether the interdependence also persists in service access indicators. By examining the service access interdependence, the research is the first attempt to test such interdependence across local areas of a developing country. Indonesia serves as a useful analytical case since it adopts a similar decentralization scheme as other developing countries that is more pronounced on the expenditure side while it still relies much on the intergovernmental transfers as its revenue. Also, the fiscal decentralization in Indonesia is further complemented by an institutional change in the form of political decentralization that favors greater local interaction. The findings point to spatial interdependence as one of the influencing factors for public spending level and service access at district level. The positive interdependence degree suggests that the interaction is a product of yardstick competition framework based on information spill over among neighbouring regions. The findings confirm that decentralization, both fiscal and political, can provide additional incentive for local government to perform better through strategic competition between districts, a process that potentially boosts local government accountability and efficiency in providing service access for citizens.

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**Session 2C**

*Title: The Governance of Metropolitan Regions: Governmental-Business Interactions*

Co-author: Abbas Ziafati Bafarasat

*Abstract:* In pursuit of effective governance of metropolitan regions, this paper develops a hypothetical model to explain the pattern of interactions between governmental and business actors. We deploy the ‘exemplar’ method of case study selection to test the hypothesis in the Ruhr metropolitan region of Germany. The key research methods are content analysis of policy documents, in-depth interviews and a focus group with key actors. The research results draw attention to i) the role performed by business actors who are instrumental in persuading local governments to collaborate at the metropolitan scale and ii) how the state tier of government manages the process of voluntary collaboration by local governments. We find that process management is carried out through codes of outcome that limit exit and downscaling in collaboration. This combination of tactics, which we term ‘persuasion’ and ‘obligation’, is observed to result in more effective inter-local collaboration.

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**Session Panel 2**

*Title: Reflections on Developing Regional Economic Development Strategies: The Case of Regional NSW*

Co-author: Karen Howarth

*Abstract:* In late 2017, the NSW Government commenced a process of assisting council-led coalitions of regional stakeholders to develop 38 Regional Economic Development Strategies (REDS) across all of regional NSW. A guiding principle was that each strategy should accord with a Functional Economic Region as defined by economic analysis, and local expertise and preferences. This was a bold attempt to break from the strictures of past practice; providing a vehicle for engaging the community in a ‘conversation’ about regional needs and priorities, [which] assists in bringing together key stakeholders and mobilising resources. These REDS were developed – with the support of a cluster of economic consultancies – using a consistent methodology to inform the development of a regional vision, strategic priorities and key actions (detailed in Stimson, 2017). Through this paper, we reflect upon their development and publication from the dual perspective of civil servant responsible for coordinating the overall program and independent ‘expert’ appointed to review the REDS. In particular, our goal is to identify some key learnings that have implications for both theory and practice.

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**Session 2B**

*Title: Factors Associated with Nutritional Status of Children in Low and Middle Income Countries in Southeast Asia – A Multilevel Analysis*

Co-author: Rossita M. Yunus

*Abstract:* The malnutrition of children in middle and low income countries has continued to be an important health and social issue. The specific objectives of this study are: (i) to examine the association between significant risk factors and malnutrition of children aged under 5 years in low and middle income countries from the Demographic and Health Surveys (DHS) dataset; (ii) to identify the presence of heterogeneity between studies; and (iii) to determine for any significant difference in factors associated with the chronic malnutrition status – stunted and non-stunted children. Samples were taken from the Demographic and Health Survey for the period from 2008 to 2017 in low and middle income countries across the Southeast Asia region. The multilevel linear regression method is used to identify factors that contribute to the malnutrition of children, and to determine variability in the studied countries. The multilevel study is expected to give a better picture to understand the true association between childhood malnutrition and its associated factors compared to a single level of analysis. Important risk factors associated to malnutrition of children in Southeast Asian low and middle income countries are expected to be identified.

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**Session 2C**

*Title: Western Sydney Growth and the Illawarra's Regional Development Implications*

Co-authors: P. Perez, R. Wickramasuriya, N. Huynh and B. Du

*Abstract:* The Illawarra region extends about 40-200 km of Sydney's CBD, from Helensburgh in the north to Gerroa in the south. It includes three LGAs of Wollongong, Shellharbour and Kiama with population of 309,549 (2018 estimate). The vicinity of the Illawarra to Sydney, which is Australia's largest labour market, attracts about 25,000 people to travel between the two regions to work. The region is connected to Sydney by Princes Motorway, Princes Highway, local roads, and two main rail lines, being South Coast Line and Moss Vale-Unanderra Line. However, the Western Sydney developments is expected to have regional impact on the Illawarra's labour market and on its transport infrastructures. In this paper, we use Vision Illawarra which is a regional planning tool developed by SMART Infrastructure Facility to conduct a comprehensive investigation on the economic, demographic, transport and land use impacts of Western Sydney development on the Illawarra.

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**Session 2A**

*Title: Multi-sited Ethnography of Development Initiatives in Regional Indonesia and Australia*

*Abstract:* This paper reflects on early stages of producing a multi-sited ethnography of relationship building and research engagement activities with local communities and other stakeholders involved in development ideas and projects in various locations in regional Indonesia and Australia. The main areas of focus are community renewable energy and academic capacity-building and include attention to centre/region partnerships and local-level livelihoods and, more broadly, lifestyles. Sites include Kalimantan and Maluku provinces in Indonesia, and Darwin and surrounds and Victoria's Bass Coast in Australia. The methodology's largely-inductive approach aims toward production of a narrative account of various times, places and projects, one that is unified by themes of sustainable regional development and identity that crystallise in the writing process, and resulting ideally in a text that is accessible, engaging and meaningful to a public readership. Numerous dilemmas and challenges have arisen so far, prominent among these being: practical challenges around keeping observational notes in the midst of immediate work tasks while in the field; how to establish the temporal cut-off point of the primary research; whether to take a bilateral or single-nation focus (and attendant insider/outsider considerations); ethical concerns around what constitutes research; and, overarchingly, how to build a coherent thematic narrative based on diverse data and experiences.

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**Session 1B**

*Title: Is There Really a Housing Affordability Crisis in Australia, and If So, What is Causing It?*

*Abstract:* There is considerable debate on the issue of housing affordability – some call it a crisis – in Australia as housing prices have been increasing substantially in some regions and the entry of first homebuyers into the market is supposedly being restricted. Housing affordability is certainly a vexed issue, and the definitions used for defining it lack precision in the popular debate. Housing markets are far from homogeneous, with house purchase prices and levels of rent displaying great spatial differentiation. That has always been the case in cities, as explained in the theory of bid-rent functions in cities proposed by William Alonso in the mid-1950s, whereby housing choices are a trade-off between the cost of housing and the costs of commuting. The issue is the degree to which housing-cost induced housing stress is universal, what are the factors impacting housing affordability, whether housing unaffordability is city and location-specific, and the degree to which within a city the lack of affordability reflects the location specific preferences/aspirations of specific individuals or households. The paper canvasses those issues, along with what might be done to make housing more affordable.

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**Session 2A**

*Title: The Changing Endogenous Employment Performance of Australia's Five Big Cities since the Mid 1990s*

Co-author: Alistair Robson

*Abstract:* Australia has been experiencing significant changes in the industrial structure of its economy over the past two decades with a falling share of employment in manufacturing as it continues the transition to an economy dominated by both consumer and producer services. This is particularly evident across the nation's five major cities - Sydney, Melbourne, Perth and Adelaide – which are primate cities in their states and are the prime generators of gross domestic product (GDP). The transition is uneven geographically, with marked differences in the structure and performance of those cities. The paper measures and compares the strength of the economic performance of those cities and their industrial structures, first over the period 1996-2006, and then over the subsequent decade 2006-2016, using a measure of endogenous regional employment performance – which can be either positive or negative – derived from the regional or differential shift component of a Regional Shift- Share Analysis. Changes in the performance of the cities over those two successive decade periods are highlighted, and the implications are discussed.

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**Session 3B**

*Title: Future of Work and Growth of the Knowledge Economy in Australian Cities and Regions*

Co-authors: Lawrence Pratchett, Richard Hu and Michael Walsh

*Abstract:* This paper investigates the spatial distribution of the knowledge economy in the cities and regions of Australia. In a knowledge-based economy, geographical location is important, since people desire interaction to disseminate tacit knowledge. At the same time, technology creates flexibility at work and makes knowledge workers more mobile, which creates more competition among the knowledge industries to retain workers. The availability of amenities and lifestyle are factors to attract and retain knowledge workers and to enhance knowledge-based economic development. The paper presents a knowledge cities index using 2016 census data and compares changes between 2016 and 2011. It investigates the spatial distribution of people working in the knowledge industries in the top five cities and regions in Australia. Overall, among the top 25 cities only the top 6 cities and regions has knowledge intensiveness. The bigger cities have more than one cluster of the knowledge economy, whereas smaller cities concentrate only in the inner CDB area. This study will help strategic planning, spatial planning and infrastructure development around future knowledge clusters.



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**Session 3A**

*Title: Entrepreneurial Discovery as Policy Engagement*

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*Abstract:* ‘Entrepreneurial discovery’ has been a necessary part of the conceptualisation of Smart Specialisation in the design and implementation of European Union Cohesion Policy since 2014. It has been a key opportunity to align learning from regional development policies with initiatives intended to strengthen linkages between science and technology and industry. A quadruple helix approach to developing place-based innovation systems recognises the dynamic character of innovation as collective problem-solving amongst business, research and education, government and civil society, rather than a linear approach which privileges commercialisation of new ideas. Gippsland, in south-eastern Australia, has been the focus of the most significant implementation of the smart specialisation process seen in Australia. It has provided an opportunity to test the S3 process in some depth, working with a quadruple helix arrangement of stakeholders. This paper reflects directly on the adaptation of the Entrepreneurial Discovery Process (EDP) in this Australian setting, identifying key issues that have arisen in its implementation. It comments explicitly on those aspects where the process seems to have a distinctly different character from regions in other parts of the world.

**Note: Some of the abstracts reproduced here have been lightly edited for length to fit the space constraints of the conference program.**

