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URBAN AND REGIONAL WELLBEING, FIRST NATIONS ECONOMIES AND GLOBAL VALUE CHAINS FOR
REGIONAL SUSTAINABILITY

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PLENARY PRESENTATIONS

First Nations Economies

CONNECTION, COUNTRY AND CASSANDRA: ACHIEVING SOCIALLY JUST CLIMATE GOVERNANCE IN URBAN AND REGIONAL AUSTRALIA

Melissa Nursey-Bray, University of Adelaide, Australia

In an increasingly urbanised world, how we as societies relate to and connect with the ecologies of our cities and build/retain our relationship with nature, will become increasingly important. Multiple studies point to the wellbeing, mental health and fitness benefits of interactions with nature, as well as the key role ecology plays not only in reducing the impacts of climate change, but in making urban spaces more age friendly and sustainable overall. Yet contemporary trends in urban planning and policy development idealise high density living with minimalist private green space, and create a culture that is fearful of public greenspace, especially in local streets. Citing safety as a public good refrain, the impacts of climate change per se, especially high winds and storms, are used frequently to mandate this fear and facilitate the removal of local vegetation; further compromising the ecology of streetscapes. In Australia this is overlain with the fact that Indigenous connection to country, so disrupted by colonisation (which is enacted in physical form by the existence of its cities) is not fully recognised in urban and regional domains. This paper, set in the context of the increasing challenges of climate change, explores the links between connection and country, why our relationship with nature remains more important than ever and how it can become central to achieving socially just climate governance in Australia's regional and urban regions.

PARALLEL SESSION PRESENTATIONS

Agri-food Value Chains

THE GOVERNANCE OF LAND-BASED VALUE CHAINS: ATTRIBUTES FOR VALUE CREATION AND VALUE CAPTURE

Tiffany McIntyre, AERU, Lincoln University, Aotearoa New Zealand

The concept of value is central to business operations and how the process of value creation and value capture is managed is a critical success factor to the performance of value chains (VC). There are various modes of chain wide governance which attempt to facilitate value creation and capture. However, while the concept of governance has been well researched at the internal and bilateral exchange level, the governance literature at the systems level is somewhat sparser.

Land-based VC's are often characterised by a highly centralised governance structure, whereby one firm (generally located downstream) acts as a gatekeeper to market. In commodity chains suppliers, such as farmers, typically hold little power as market signals are poorly communicated upstream by retailers who control data on consumer segment preferences, resulting in information asymmetry and power imbalances. Consequently, there is a need to understand the forms and nature of chain wide governance and its effect on value creation and capture.

This research contributes to the current literature through firstly adopting a VC logic, which suggests that the needs and expectations of the end consumer must be first consideration of all VC members, as the end consumer is the final arbiter of value within a chain. Using this logic as a foundation, we introduce a series of literature supported governance attributes, that we postulate, help facilitate value creation and capture. Market orientation, information enrichment, aligned incentives, channel leadership, and collaborative network governance all lead to enhanced value outcomes for VC

members. In addition, it is proposed that value co-creation, resilience and adaptability, and brand ownership and control all support value creation.

WINE CONSUMER PREFERENCES FOR SUSTAINABILITY ATTRIBUTES: A DISCRETE CHOICE EXPERIMENT OF CALIFORNIAN SAUVIGNON BLANC PURCHASERS

Peter Tait, AERU, Lincoln University, Aotearoa New Zealand

In an increasingly saturated global market, winegrowers and wineries have an opportunity for product differentiation born out of environmental and social pressures coupled with growing consumer preferences. The wine industry has seen significant establishment of sustainable certification systems as wine consumers preferences for sustainability have developed. However, there is a risk that the prominent use of symbol and icon type labels may obscure individual sustainability attributes and weaken signalling to consumers searching for specific credentials. Consumers may respond to individual components of sustainability programmes differently to others and the use of simplistic symbols and logos makes it difficult for consumers to identify which elements are contained within a scheme.

This paper reports on the application of a discrete choice experiment to identify and measure Californian Sauvignon blanc consumer preferences for individual components of sustainability schemes active in-market. A specific objective is to assess the relative importance of sustainability attributes in consumers wine choice against those widely recognised to be main influences on choice, namely country-of-origin, price, and quality.

We find significant positive willingness-to-pay for the sustainability outcomes assessed. Consistent with current understanding we find that price is the most important attribute, followed by where a wine is made, and then an assessment of wine quality. What this study adds to this narrative is that the role of sustainability in wine consumer choices is significantly determined by specific environmental and social outcomes. Growers and wineries implementing sustainability programs or considering market strategies incorporating sustainability may benefit from increasing attention on attributes more valued by consumers such as management of pests and diseases, and water resources, and less on attributes less valued such as energy or biodiversity management.

LONG-TERM MODELLING FOR AGRICULTURAL INTERNATIONAL TRADE

John Saunders, AERU, Lincoln University, Aotearoa New Zealand

Often agriculturally focused trade models are focussed in short-and medium- term impacts. This can lead to short-comings in analysis when policy recommendation have unintended longer term implications, or when shorter term price distortions are misidentified as arising from underlying structural drivers. The Long-term Agricultural Outlook model (LAO) has been developed to supplement short- and medium- term analysis. The model has a partial equilibrium framework with a high level of regional and commodity aggregation, aimed at describing long-term structural drivers in agricultural markets. The model was developed as a complement to the Aglink-Cosimo Model used by the FAO and OECD for analysing global agriculture, and has a focus on total factor productivity and spending in agricultural R&D. The structure is loosely based on the methodology of Baldos and Hertel's SIMPLE model, while offering important distinctions in its design and possible implementation.

UNLOCKING EXPORT PROSPERITY FOR REGIONAL DEVELOPMENT

Caroline Saunders, AERU, Lincoln University, Aotearoa New Zealand

On 12 September 2017, the Ministry of Business, Innovation and Employment announced that 27 proposals to the Endeavour Fund for science research programmes had been selected for funding over the next five years. One of the successful proposals is for the research programme Unlocking Export Prosperity from the Agri-food Values of Aotearoa New Zealand. The programme brings together researchers from the Agribusiness and Economics Research Unit at Lincoln University, from Plant and Food Research, from the Ngāi Tahu Research Centre at the University of Canterbury, and from The Leadership Lab in Christchurch. It will provide new knowledge on how local enterprises can achieve higher returns by ensuring global consumers understand the distinctive qualities of the physical, credence and cultural attributes of agri-food products that are “Made in New Zealand”. Professor Saunders is the chief scientist for the research programme, and will give an overview of its first results and the implications for regional development.

Global Cities and Regional Capitals

GEOFUSION: CITIES, REGIONS, NATIONS IN THE GEOECONOMY AGE THE POWER OF GEOGRAPHY

Norbert Csizmadia, PAIGEO - Pallas Athene Innovation and Geopolitical Foundation, Hungary

The study behind this presentation is based on a thorough investigation regarding the recent global, social and geographical processes. The presentation 'Geofusion' guides the audience with the help of maps in the global world of the 21st century through the quest for the winning nations, communities, leaders and powers of this age.

The findings of the study include a significant recognition that the scientists who are taken as explorers geostrategists of this century in this case, are expected to present guidelines of our connected world full of global social and economic challenges. In 2017 the author issued his book in Hungarian and English alike titled Geofusion: Mapping of the 21st Century. This paper presents the basic message of his book involving the following statements: We have to redraw our conventional maps replacing them with maps of questions making up objectives. Creativity and geo-knowledge is the pledge of a winning position in global economic competition. In the future's economic competition, if taken as a race, creativity is the fuel, connection networks and knowledge represent the safety belt. Local resources help us to go international. We can enter international geo-fusion networks only via our local community's values. Positive effects of co-operation, cultural diplomacy, knowledge and talent have to be trusted.

New Global Cities – Powerhouses in the 21st Century:

According to various research and forecasts, the main economic concentration will be in 40 megacities and global centers. Based on various competitiveness analyzes and indices, global city centers and city networks are outlined, but if we look at other aspects of urban development like complexity, connectivity, creativity, technological development, viability, green cities, pedestrian and child friendly cities, creative and cultural centers, cultural spaces and knowledge centers, we get a city competitiveness index with quite new complex indicators. The research shows this result. In addition to the megacities and the global centers, with the investigation of functionality we got 64 so called 'fusionopolis' (i.e. fusion-polis) which stand for the most decisive economic power centers of the 21st century. In this city competition Asian centers considerably rise, as the world's functional city competitiveness index is being formed.

Using the lately discovered geographic and economic interrelations, the presentation tries to give a prognosis of the global processes. The methodology contains the survey and analysis of many recent publications worldwide, regarding geostrategic, cultural, geographical, social and economic surveys structured into global networks.

In conclusion the author presents the result of the study which is a collage of the global map of the 21st century as mentioned above. In summary the presentation displays the results of a several year long study giving the audience an image how economic navigation tools can help the investors and travelers to get along in the changing new world.

THE 'TERRITORIALITY' OF THREE MEGA-CITY REGIONS IN WESTERN CHINA: COMPARATIVE ADMINISTRATIVE RESTRUCTURING AND ECONOMIC EMERGENCE OF CHONGQING, XI'AN AND LANZHOU

Miguel Hidalgo Martinez, Xi'an Jiaotong-Liverpool University, China

After decades of concentrating economic growth in the coastal region, the Chinese central government announced the 'Open up the West' campaign in 2000 to channel funding for massive infrastructure development in the country's interior. This was the first step towards the economic take-off of Western China. In 2013, the central government announced another breakpoint for the region: the 'One Belt, One Road' initiative, for which Western China had a central developmental role regarding transport infrastructure and capital investments. Along with these two regional policies, the central government has reconfigured territorial power relations of three of the main cities in Western China throughout the 2010s: Chongqing, Xi'an and Lanzhou. This reconfiguration consists in establishing new territorial jurisdictions in the cities to propel economic growth by accelerating land use conversion and fixed capital investments. The central government restructured the urban-peripheries of the three cities by establishing 'national level new areas', territories at the same administrative rank than Pudong Shanghai. In 2010, the central government established Liangjiang New Area in Chongqing, two years later it established Lanzhou New Area in Lanzhou and in 2014 it approved the same territorial reform in Xi'an. Whereas normative analytical frameworks in China studies based in the experience of capitalist cities conceptualize 'new areas' as exceptional territorialities where mobile capital find preferential tax regimes and business-friendly environment; a critical geographical approach sees 'new areas' as state strategies to govern urban expansion. The paper presents descriptive statistics of urban economic indicators (tax revenue, fixed capital investments, real GDP growth, foreign direct investments and gross industrial output value) of the three cities in relation to their territorial restructuring. By doing so, this paper proposes that the process of territorial change ('territoriality') is a state strategy from where to understand the uneven and accelerated urban transformation of Chongqing, Xi'an and Lanzhou as mega-cities in Western China.

Global Connections

THE ROLE OF POSITION IN GLOBAL VALUE CHAIN ON AGGLOMERATION BY EXPORT DESTINATIONS -- EVIDENCE FROM CHINA'S FIRM LEVEL DATA

Tao Song, Sichuan Agricultural University, China

This paper studies the role of position in global value chain on the agglomeration by export destinations. We use China's export firm level data to provide empirical evidence for the argument. In the existing literature, agglomeration effect of production country is widely studied, but the agglomeration by export destinations is quite new. Hence, our paper can contribute to the existing

literature by extending the studies of agglomeration effect from the perspective of global value chain. We prove that different positions in global value chain impact the firms' export directions.

Theoretically, this paper is based on the theoretical research by Antras and Gortari (2017). The mechanism is that firms choose the optimal location of production in a given stage of GVC. The firm considers the cost saving function for the whole production line as well as the final market. Firms locate relatively downstream stages of production in relatively central locations. The central countries gain comparative advantage. Production at downstream stage would prefer to agglomerate in export market. Production at upstream stage would prefer to be less concentrated in export market.

Empirically, we use Duranton and Overman (2005) to define our dependent variable, agglomeration. The advantage of DO methodology for calculating agglomeration is that it can overcome the border effect issue and provide a measure of deviation from randomness. The variable of interest is the firm's position in global value chain. We adapt Antras and Chor (2013) to calculate the variable of position in global value chain in order to present whether firm's export product is in the upstream or downstream stage. Besides, we also control the firm's feature and destination countries' feature as well in the empirical model. To be more precise, we use firm's TFP as one of the important control variables in the model to show the heterogeneous firms' export performance.

Econometrically, we employ Tobit model to estimate our empirical model. The attribute of DO methodology provide strong hint to use Tobit model as the econometric strategy. In terms of the data, we combine China Industrial Enterprise Data and China Custom Import and Export Data covering from year 2000-2007. By doing so, we are able to get the product attribute and export destination as well as the firm's feature variables.

We find that firms at downstream position in the global value chain would be more concentrated in the export destinations. However, firms at upstream position in the global value chain would be less concentrated. We also find that China's export firms are more agglomerated in developed economies than in developing economies. The findings prove the geography of global value chain and provide strong evidence for explaining why some firms are geographically too close to each other than some other firms. It also provides new explanation of trade pattern that some countries are always in trade surplus to certain trade partners.

AFRICA'S INFRASTRUCTURE CUM DEVELOPMENT NARRATIVE: A MEDIATION

Innocent Daudu, University of Pretoria, South Africa

The African continent, despite its relative infrastructural gains, presents a yawning gap between a minimum infrastructure requirement and an apparent deficit in reality. A World Bank report indicates an estimated annual infrastructure financing need of USD 90 billion in the region, lagging behind other regions in the world. Amidst enormous natural and human endowments, Africa grapples with a huge infrastructure shortfall. In many cases, her resources sustain violent conflicts, corrupt groups and 'stayist regimes', rather than promoting GDP growth and overall development. Infrastructural efficiency represents a critical underpinning for economic prosperity, overall development and stability in the region. The AU agenda 2063 as well as various sub-regional infrastructure master plans underscore the centrality of infrastructure to development. However, a myriad of factors which are economic, political and historical in nature, account for lapses. I argue that the obstacle does not lie in the total absence of instruments such as the Programme for Infrastructure Development in Africa (PIDA), the African Development Bank (AfDB), New Partnership for Africa's Development (NEPAD) and African Peer Review Mechanism (APRM). The character of the challenge rather reflects insufficient political will and adeptness to drive the execution of projects, as well as limited private sector investment in the region's infrastructure. This paper takes a structural functional approach to

interrogating Africa's infrastructure and development narrative. It critiques the fragmented pattern of the region's local markets and the concomitant loss of the much needed revenues. Similarly, it examines the influence of factors such as 'China's penetration' as well as the activities of 'resource peddlers' on the region's infrastructure and development dynamics. It concludes that a strong commitment on the part of constituent states, individually and collectively, to mobilize domestic capacity, to deliver on infrastructural programs, as well as to stimulate an investment friendly climate where win-win outcomes are possible, will essentially better the region's infrastructure capacity and overall development.

INTERREGIONAL REPERCUSSION EFFECTS OF TOURISM CONSUMPTION: CASE OF TOKYO METROPOLITAN AND THE REST OF JAPAN

Oscar Tiku, Tokyo Metropolitan University, Japan

Tourism has become an important motor for economic growth and regional development. It has also been perceived as essential contributor for sustainable development. Magnitude and significance of the impact may vary even among regions which were encouraged by its attractiveness. Current measurement of tourism economic impacts mostly focused to the extent of output (product), income, and employment that commonly used in quantitative macroeconomic modelling includes the traditional Input-Output Analysis.

Single-Region Input-Output (SRIO) model is the most basic and common impact analysis method. However, it does not include interaction between sectors across region, spillover and feedback effect, and leakages-which potentially reduces tourism's maximum contribution to regional economy. Therefore, current measurement regarding to tourism economic impact tend to be underestimated and false leading. However, afore mentioned interaction, effects and leakages can be measured using Interregional Input-Output (IRIO), and thus provide more comprehensive result in regional setting.

Using Tokyo Metropolitan and Rest of Japan (ROJ) Bi-Regional Input-Output model as case study, this study aims to explain it in two major points. First, interregional repercussion model between Tokyo and ROJ that includes measurement on interregional spillover and feedback effect, and leakages. Second, interdependent model of good-producing sectors and tourism major-related sectors that shed a light the interaction and interdependency between sectors across two regions.

Self-Sufficiency Rates (SSR) of each region will be calculated along with internal and external matrix multipliers whose coefficients suggest characteristic of each region's industrial structure based on its part in the country's economy. Furthermore, intraregional multipliers include output, income, and employment multipliers are calculated and compared to similar multipliers obtained from SRIO model.

Housing Issues

UNPICKING THE CONSTRUCTION DEVELOPMENT PIPELINE: A COMMUNITY HOUSING PROVIDER PERSPECTIVE

Jennifer Joynt, Auckland Council, Aotearoa New Zealand

The affordable housing crisis in Auckland is having well-documented impacts on the health and well-being outcomes for many. Rising house prices and stagnant wage inflation over the past decade have made home-ownership almost impossible in Auckland for those on (or below) an average salary. Increasingly rental affordability is also dropping, putting more and more families in a precarious housing situation. Housing options are defined as a spectrum from home ownership at one end to homelessness at the other; the interim steps include social housing, community housing and private rental housing. Under-investment in social housing stock for decades has left many unable to access

it, instead relying on the private rental market. For many, this is subsidised with the accommodation supplement. Private rental can be precarious with the balance of power favouring property owners. Tenants are subject to short notice evictions and poor quality housing.

Community housing providers (CHPs) offer an antidote to the precarious housing situation. CHPs provide the community with secure affordable rental tenure as well as pathways to home ownership through let-to-buy and shared equity options. The limited ability of CHPs to meet the demand for affordable housing has been attributed to many factors including lack of government investment, lack of affordable land, and discriminatory planning policies. This research funded by the National Science Challenge 11 programme used qualitative interviews with CHPs around New Zealand to unpick the construction development pipeline in order to determine exactly where the barriers occur and where path dependencies lie, as well as to develop some recommendations for Auckland Council and Government to assist CHPs in their objectives.

THE NEW SPACES OF HOUSING AFFORDABILITY IN AUSTRALIA: UNPACKING THE ROLE OF LOCAL GOVERNMENT

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Housing affordability remains a fundamental challenge for Australia, with more than 1 million households estimated to be living in inappropriate and unaffordable housing. The perceived national housing crisis appears without resolution, especially in an environment where falling residential property prices are considered to generate additional risks for the economy and society, without improving living costs. Government policy responses, led by the Australian and state governments have largely failed to deliver benefits for the Australian people and have often had perverse impacts, including the escalation of housing bubbles and the reduction of social housing supply. This paper draws upon the 'new state spaces' theory to consider the still emerging role of local governments in the provision of affordable housing. The paper foregrounds the willingness of local communities to address this issue, a motivation often stymied by the lack of leadership evident amongst central governments.

LOCAL GOVERNMENT AND HOUSING IN AUSTRALIAN RURAL COMMUNITIES

John Martin, La Trobe University, Australia

Martin John, La Trobe University, Australia

Issues of housing access and affordability in relatively remote rural Australian communities are addressed in different ways when compared to the way local governments in urban centres respond. In this session we report on an in-depth case study of one rural shire which revealed that the local authority worked with community organisations and financial institutions to ensure everyone had a place to call home. It reveals that a supportive local authority can make a significant difference through leadership and engagement across the community in ways that are focussed and inexpensive.

VACATING PLACE. VACATED SPACE

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Gerard Prinsen, Massey University, Aotearoa New Zealand

Okarito on New Zealand's rugged West Coast had grand designs. The fast-growing port carved out of forest on a coast where harbours were few and supported by recent gold discoveries and – fuelled by what seemed realistic expectations – , included the site for a Colonial University in its town plan. A

hundred and forty years later this now small coastal village with a population of around 30 permanent residents has reverted almost entirely to temperate rainforest, surviving on eco-tourism. Okarito's fate is not unique, as contemporary public and scholarly discourse on the depopulation of rural regions from New Zealand to Europe demonstrates.

This depopulation has immediate implications for local governments, struggle to provide or maintain existing infrastructure on a shrinking tax base. After decades of neglect, the New Zealand government has recently renewed interest in declining regions, responding through infrastructure investment and regional economic development initiatives. Less interest has been placed on the changing legitimacy of decisions made about these regions – who does and who should decide the future of Okarito and what its inhabitants need?

We frame this regional depopulation in terms of vacating place that creates vacated space being recolonized by nature. Critical is the (disappearing) presence of agency, recognising the difference between 'space' as geographic location and 'place' as location of human settlement. We propose a framework to explore the legitimacy of decision-making that determines the character of this vacating place and manages any transitions. We ask what happens to the legitimacy of decision-making when place is being vacated.

Initiatives for Sustainability

REGIONAL RESILIENCE TO EXTERNAL SHOCKS: DOES & HOW THE ECONOMIC STRUCTURE MATTERS

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This paper presents preliminary results of research conducted under the research grant project "Euro4Europe" which main aim is to provide empirical evidence on the dispute of optimal currency area theories and does European integration increase or decrease business cycle asymmetries. Author seeks to explore how the different sectors have reacted to the last recession of 2008-2010 in different European Union and Asia countries. Different studies report different results on how economic structure matters when a recession happens in the different countries and regions. Some argue that common factors can explain more on forecast growth, while others argue region-specific effects have to be accounted for. Heterogeneity of EU countries and regions allows exploring EU policies (in this case, European Monetary Union) impact in different set-ups. Does and how different economic structure matters when it comes to regional resilience to economic shocks, does business cycle synchronization could be explained by a similar economic structure in some European regions or by other factors – these are the main research questions author seeks to explore. Author exploits data from World Bank and Eurostat on Agriculture and Business Sectors value added & employment during the period of 2000 – 2015. Preliminary results indicate that some regions still struggle to recover from 2008/09 recession in Business and Agriculture sectors while others are already back on growth path. There is confirmed heterogeneity in recovering of the Agriculture sector in different European Monetary Union countries even though Agriculture sector seems recovered in whole EMU. However, Industry sector's percentage share in GDP did not recover in whole EMU and this confirms heterogeneity of EMU countries. Moreover, different Agriculture and Industry sectors' recover patterns were indicated in Australia & New Zealand. The question remains what are the causes of different countries or regions resilience patterns: global connections, economic structure factors, specific regional conditions, degree of urbanization or trade connections. This implies further research trajectories and some needs for discussion.

SMALL AREA TEMPORAL HOUSEHOLD ELECTRICITY DEMAND MODELS FOR NEW ZEALAND

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This paper will present preliminary results from the development of a small area (mesh block level) temporal electricity demand model for New Zealand. The model uses a spatial microsimulation approach to combine New Zealand Census data with a) observed demand patterns derived from a small scale household power demand monitoring dataset and b) inferred demand patterns derived from national New Zealand time-use survey data to produce local area electricity demand profiles for each New Zealand mesh block under a number of scenarios. The paper will describe the reproducible methods used, the results of the baseline model for selected urban areas of New Zealand and preliminary results from two scenarios: '100% electric vehicle uptake' and '100% electric heat'. The potential implications of each scenario for the scale and timing of electricity network loads in different local areas will be described. The paper will then discuss the implied need for peak demand mitigation methods that can avoid both costly local network reinforcement and increased demand for and GHG-emitting generation under these scenarios. The paper will conclude by outlining ways in which the underlying data sources could be improved to provide a more robust and extensible modelling tool for the analysis of local infrastructure resilience to ensure sustainability in the face of social, economic and climate related change.

Modelling Spatial Development

A CRITICAL REFLECTION ON THE IMPLICATIONS OF THE CHOICE OF URBAN DECISION-SUPPORT TOOLS ON URBAN OUTCOMES

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Urban planners and decision-makers increasingly make use of models to better understand how urban sustainability could be achieved and to attain evidence about potential effects of socio-economic and environmental trade-offs in order to take informed decisions. However, the choice and use of a particular decision-support tool (DST) might determine the resulting urban outcome. Which urban outcomes are beneficial in line with the discourse on the morphology of sustainable cities poses wicked problems for decision-makers and urban planners.

In this paper, we examine the impact of path dependence through the choice of urban DST and, how it might determine urban outcomes. We identify five key dimensions from the literature on the theory of path dependence, which we use as analytical framework to critically reflect on the influence of DST used for decision-making on residential development strategies. These dimensions are i) objectives and motivations, ii) definitions and assumptions, iii) information requirements, iv) presentation and interpretation, and v) procedural issues.

New Zealand is an exemplar of a housing sector with ongoing discourses on sustainable housing strategies to master growth pressures, housing affordability and urban quality of life with regards to urban morphology, and serves as case study for this analysis. Based on two DST available in New Zealand, we analyse path dependency towards urban outcomes. The first DST is a non-spatial data-driven tool provided by the Ministry of Business, Innovation and Employment to calculate the development feasibility of different housing densities and building types. The second tool, ESP, is a publicly funded spatially explicit and knowledge-driven scenario assessment tool which considers the economic, social and environmental feasibility of different development strategies. A comparative case study application of both DST to a typical development scenario in Christchurch, New Zealand, consolidates the analysis.

We find that stakeholders' belief systems, the DSTs' perspective and the type of evidence provided by the DST potentially advocate contrasting urban morphologies. These findings are relevant beyond the New Zealand case study and call for more awareness of path dependence due to the choice of DST and a rethinking around particular DST implicitly being embraced as the default choice by urban planners and decision-makers.

RENEWING THE THEORY OF ECONOMIC BASE: A NEW APPROACH TO MEASURE LOCAL ECONOMIC DEVELOPMENT

Magali Talandier, University of Grenoble Alpes, France

Ten years ago, we developed a new approach to the theory of economic base in France (Talandier, Davezies, 2009 ; Talandier, 2012). This new approach measures the flow of revenues in different localities. We consider four strands of revenue. The first is linked to exports (like the classic export base). The second is linked to the residential economy. We proposed this term to include retirement pensions, the earnings of resident commuters and income from tourism. The third is the salaries of public servants, and the fourth includes the payments of social and health benefits. The calculations show that the first economic drivers for local areas is the residential economy. In France, the revenues account for 40% of the economic base. Of course, this varies from one area to another and explain a part of the different level of economic development. This method offer a new approach to consider the local economy and to develop new local strategies.

Based on these results, many local governments have changed their politics of local economic development in France. Many researchers have used our model and our method in different countries in Europe (Switzerland, Belgium, Portugal...). More recently, some NGOs have applied this concept in the southern countries (in Africa and South-America). However, I think that the model cannot be applied in the same way. It could be adapted to each context.

During the congress, I would like to present the European method and results. And I would like to discuss the opportunity to develop this model in the context of New Zealand.

POLICIES AND INSTRUMENTS FOR BALANCED SPATIAL DEVELOPMENT: EUROPEAN LESSONS FOR AUSTRALIA

Stefanie Dühr, University of South Australia, Australia

Australia's population distribution and urban settlement structure is dominated by a handful of large metropolitan centres along Australia's coastline. Some 80% of the nation lives in one of the capital cities, and approximately 45% of Australians live in Sydney or Melbourne. Since the early 1970s Australia has depended on immigration in order to achieve population growth and workforce renewal, but 80% of immigrants settle in the two largest cities. These trends have over recent years prompted a discussion on the negative consequences of the concentration of population and economic activity in a small number of large cities, and calls for policy frameworks to address spatial imbalances are being made.

This paper focuses on European experiences with policy frameworks to achieve more balanced spatial development, and the instruments and governance arrangements to achieve policy coordination vertically (across levels of government) and horizontally (across policy sectors). The member states of the European Union have since the 1980s been collaborating on spatial development policies and instruments, and work is currently underway on revising the intergovernmental 'Territorial Agenda for the European Union', with adoption expected in 2020. This paper draws on a recent project for the

German government on informing the Territorial Agenda process and will provide a review of the approaches taken and outcomes achieved to date through spatial planning cooperation. Using a policy learning framework, the paper offers a critical discussion of the lessons that Australia could draw from European experiences on policies for balanced spatial development.

New Urban and Regional Paradigms

ARCHITECTURAL EXPERIMENT IN RURAL CHINA: MATERIALITY, POST-RURALITY AND PLANETARY URBANISATION

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The existing literature has extensively examined the rural as a social representation and a set of discourses and cultural assumptions that exist in a specific spatial-temporal framework. Relatively limited work, however, has focused on the material practices in rural society, especially architectural and building practices, and their mutual constitution with rurality. In fact, as the material embodiment of family and clan ties, architecture is at the centre of everyday practices and emotional experiences for local residents in the context of the Chinese countryside. In particular, architectural practice has been incorporated into political agendas after the state has redefined the countryside as an object of active intervention. With the emphasis on material agency in recent years, the concept of vernacular architecture can no longer be limited to that of the material carrier of rural peculiarities, and of the symbolic existence of resistance to modernization. Engaging with the theory of post-rurality and planetary urbanization, the article suggests that the vernacular architecture, in the context of rural revitalisation and renaissance movements in China, has transcended the narrow definition as evidence of regional residential pattern and culture, but must be conceptualised as an assemblage of power relations, political economy and cultural aspirations. It is overdetermined by a broad spatial-temporal framework characterised by cross-references between the two social systems of the urban and the rural, with regard to material conditions, cultural concepts and lifestyles. The materiality of the vernacular architecture stitches up culture, capital and development aspirations that reverberate as multi-dimensional and multi-scalar, and actively shapes the rural community and urban-rural relationship. On the one hand, the practice of vernacular architecture provides a substantial opportunity for the economic re-activation of rural society, avoiding the decline of the countryside under the powerful syphon effect of the city. Meanwhile, the mutual construction of discourses of vernacular architectural culture and rurality provides a window into post-rurality of contemporary China. On the other hand, rural architectural experiments have confirmed that the considerable increase in circuits of capital, knowledge, and culture between urban and rural areas has not led to the gradual demise of urban-rural borders, but rather the reconstruction of such normative distinctions through constant interaction. It complements theories of planetary urbanization: at the same time as the logic of the city inevitably spreads to the whole world and intertwine with the rural, the inherent asymmetry of power between the urban and the rural, and the desiring cultural gaze cast upon the rural, reproduce the identity of the countryside rather than annihilate it.

URBAN NARRATIVE: CASE STUDIES OF CAPTURING COMMUNITY PERSPECTIVES THROUGH DIGITAL ETHNOGRAPHIC TOOLS

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The Urban Narrative is a proof of concept research project funded by New Zealand's National Science Challenge for Building Better Homes, Towns and Cities. The Urban Narrative project aims to develop new digital tools and techniques which provide a 'voice' for communities and helps build relationships

by enabling communities to express their values, priorities and perspectives through data storytelling which supports better decision making for urban design and planning.

Urban Narrative is collaborating with three neighbourhoods in the New Zealand cities of Napier and Christchurch. The Christchurch case study focuses on Addington, a neighbourhood which has experienced significant change over the past fifty years, and has evolved from having a focus on provision of major railway sector infrastructure to having a more residential focus and providing a relatively safe post-earthquake area for residential and business land uses after the 2011 Christchurch earthquake and subsequent aftershocks. The Napier case study neighbourhood of Maraenui is an area with high deprivation scores based on a variety of indices including employment, income and home ownership, and is a unique community with a distinctive mix of European, Maori and Pacifica population bases. Raglan is a small beachside town popular for its surfing, quirky art and alternative lifestyles, and is experiencing pressure from summer influxes of visitors and high growth rates impacting on the town's physical and social infrastructure and identity.

Using innovative digital ethnographic tools co-designed with these communities, the data stories collected through these digital tools enable citizens to express their values and priorities through storytelling. This connection of the communities' values and priorities with the urban fabric of their neighbourhood through digital storytelling can be translated into a common narrative(s) or community paradigm(s), which can be used to guide future urban decision-making to improve community liveability and well-being.

HEDGING CULTURAL GEOGRAPHY AND ECONOMIC GEOGRAPHY FOR CLUSTERING THEORISATION: A LONGITUDINAL ANALYSIS ADOPTING FORMAL GROUNDED THEORY METHODOLOGY

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With the strength in multi-disciplinary conceptualisation, regional studies researchers often fail in empirically testing their ideas, which neglects its theorising capability (Richardson, 1973; Pike, 2007; McCann, 2007, 2017). Industrial cluster research, for example, mostly emphasises on emerging industrial clusters (Suire, R., & Vicente, J. (2014; Østergaard & Park, 2015) or the contemporary development of traditional clusters (Dawley, Marshall, Pike, Pollard & Tomaney, 2014; Zhang, Xu & Liu, 2011; Trippel & Tödtling, 2008; Hervás-Oliver & Albors-Garrigós, 2007), which are weak in generalisability. However, there is a stream of cluster research engages historical analysis (Staber & Sautter, 2011; Potter & Watts, 2014). Historical cultural clusters hedge the interests of economic geographers and cultural geographers, and reach out to audience from cultural studies, arts, anthropology, and sociology. The chosen empirical field, Jingdezhen (China) porcelain cluster, has a history of success over 2200 years with great potential in theorising throughout its life cycle.

The research employed grounded theory methodology, with a focus on the formal grounded theorising process by comparing two substantive areas with data that covers the entire history of the cluster. Two datasets were collected in 2007-2008 and 2014-2015 in Jingdezhen with a variety of data types, including interviews, observation notes, visual data (photos and videos), and historiographical data. The two datasets are analysed separately to develop substantive grounded theories as the preparation before formal grounded theories.

The formal theorising conducted yields a total of 16 new theories, presenting major structures, processes, relationships, and functions, constructed with 129 key relationships and 10 core categories. Two substantive (point) theories from the Jingdezhen 2014/2015 dataset are developed in student

entrepreneurship, including divisions of markets and their career paths. Four formal (line) theories in the ancient Jingdezhen porcelain cluster concern divisions of markets, divisions of labour, government intervention, and innovation. Five formal (line) theories based in the contemporary Jingdezhen porcelain cluster illustrate relationships in the divisions of production, divisions of markets, grading system and education, innovation, and business ethics. Five formal (line) theories emerged with generalisation across the entire history of the Jingdezhen porcelain cluster, covering a sustainability model, a craftsmanship model, economic relevant phenomena, and the application of Weber's scope of social economics model to the porcelain cluster.

Discussion of literature comes after the emergence of grounded theories due to the nature of the methodology. The Stationary Front Effect construct designed by the researcher guides the discussion. Literature examining the relevant empirical contexts was carefully selected to compare with theories in the space and people dimensions.

Regional Development I

THE EFFECT OF THE RURAL DEVELOPMENT POLICY ON AGRICULTURAL INCOME IN SOUTH KOREA

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The objective of the present study is to conduct an ex-post quantitative evaluation of the Comprehensive Rural Village Development Program (CRVDP), a rural development program operated by the Ministry of Agriculture, Food and Rural Affairs, a central government agency in South Korea. This study begins to fill the academic and practical vacuum with one major research hypothesis: Does a public program that has been implemented in rural areas contribute to intended outcomes? The present study is primarily concerned with forming a robust quantitative evaluation of the impact of government policies in rural areas so as to help resolve the debate and inform continued planning for the rural revitalization project. The present study investigates the policy impacts on farmers' agricultural income between the policy-implemented area and the not-implemented area by utilizing the Heckman selection model and decomposition technique. This study found a significant positive impact for farm households to increase agricultural income in the policy implemented areas. This study concludes with suggesting policy implications of major findings and explaining limitations and future directions of the policy evaluation studies.

FLEXIBILITY OF LABOR MARKET AND LOCAL EMBEDDNESS OF TRANSNATIONAL CORPORATIONS: CASE FROM FOXCONN'S INVESTMENT IN HENAN PROVINCE, CHINA

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The approach of Global Production Networks (GNPs) emphasizes the strategic coupling between production networks dominated by transnational corporations and regional development in the host country. However, much research work has been largely independent from the impacts of labor market, only the roles of economic contacts, technology spillover and social networks in strategic coupling were discussed extensively. Based on the strategy coupling theory of Global Production Networks (GNPs) and regional development, and taken the case of Foxconn's investment in Henan Province, this paper aims to argue that the flexibility of labor market is one of the most fundamental mechanisms to realize the local embeddness of Foxconn's investment and production in Henan Province. We put up an analysis framework integrating four dimensions including the power and stage of nation-state, regional characteristics, corporate attributes and the local governments and

intermediary agencies. We found that the flexibility of labor market, which is co-maintained by regional characteristics and company attributes, is one of the most important mechanisms for Foxconn to achieve "strategic coupling" with regional development of Henan province; and the local governments and some intermediary agencies play a very vital role as the key linkage channels and the coordinators; the flexibility of labor market also embedded in the power and stage of nation-state, in which the unique household registration system and urban-rural dual structure, and the development stage of high-speed industrialization and urbanization in transitional China bring about a huge amount of migrant workers and technical workers; but the rising cost of labor and the citizenization of migrant workers will have a huge impact on the labor supply structure, which will challenge Foxconn's local embeddedness. Therefore, in order to promote the strategic coupling between multinational corporation and regional development, the state and local governments should set up strategies and policies to maintain flexibility in the labour market and to encourage multinational companies to expand investment and promote regional production network.

POVERTY ALLEVIATION POLICY: TOWARDS A ROBUST SPATIAL TARGETING

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Government of Indonesia is facing a new challenge since the pace of poverty rate decline has been slowing down over the last 5 years. The poverty alleviation programs implemented by Government of Indonesia has been limited in big administrative areas such as district level. We combined Poverty Livelihood Map of Indonesia 2015 (Poverty Maps) which measures Small Area Estimation to estimate poverty in sub-district (kecamatan) level using National Socioeconomic Survey Data (SUSENAS), with Census of Village Potential (Podes) datasets and Census Base Maps. This study aims to explore spatial patterns of poverty in Indonesia in relation with local geographical and demographic characteristics. We employed Global Moran's I to investigate the spatial autocorrelation of the poverty level, and Local Moran's I to detect the clustering pattern of poverty in Indonesia. Furthermore, we estimated the association of poverty with spatial factors using spatial lag regression because poverty is spatially correlated among areas.

Data shows that pockets of poverty are concentrated among many sub-districts area and can be located across districts. We found locations of strong clusters of poverty among sub-districts in Indonesia. Each cluster has different geographical endowment; therefore, local level spatial analysis is needed to determine specific geographical characteristics that linked to poverty. Furthermore, we found that poverty is not only bound to administrative boundaries such as sub-district but more than that, poverty is congregated based on regional geographic and demographic characteristics. For example, we found a large cluster of poverty located in the eastern part of Indonesia such as in Papua and East Timor island. Poverty in this area is clustered due to its identical pattern of geographic and demographic characteristics such as elevation, infrastructure, average distance to basic health and education facilities, and livelihood. The spatial lag regression showed that factors such as agriculture, natural landscape (area located in top land, wood, sea and river), physical infrastructures (road access and irrigation availability), access to basic facilities (health, education, and economy) are significantly correlated with poverty clustering.

We suggest, targeting small administrative areas is more efficient so that government can allocate its resources to poverty pockets. Targeting the pockets of poverty rather than districts, can improve effectiveness of resources since it will reach more poor areas. By finding poverty clusters and their confounding factors, more effective programs can be implemented to boost the poverty reduction.

A NEW RURAL PLANNING BASED ON SUBSIDIES FOR RURAL CHINA

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China is the largest rural country in the world and also experiencing rapid urbanization. It is that how to protect rural areas and rural culture traditions as well as to find some solution about the "Lagging Three Rural Issues"(Rural Areas, Peasants and Agriculture) have become urgent problems. Unfortunately, China's rural development and rural planning have long adopted the framework of urban planning. This paper try to launch a new rural planning framework based on subsidies for agriculture, rural areas and peasants in rural China, and put stress on some meeting the demand of agricultural modernization, and more efficient rural land-use and equalization of public services for all peasants. The paper will also share some new problems and trends of rural China after the state canceled the agricultural tax by comparing with Nordic welfare states.

PROMISED MUCH DELIVERED LITTLE: A STORY OF FOREST-BASED ENTERPRISED IN THE HIMALAYA

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Forest-based enterprises (FBEs) have been hailed as means of achieving economic development while also incentivizing local people to manage forests sustainably. It is argued that such enterprises contribute to building local capital, enhancing entrepreneurship and promoting growth. Resonating with this argument policies, plans and programs of Nepal have considered forest-based enterprises as promising economic means in generating income and employment opportunities for economic development and poverty alleviation. However, Nepalese forestry enterprises have not performed well in terms of overall business sustenance and the prospect of growth. This paper aims to investigate why this state of entrepreneurial underperformance persists and to what extent the policy related barriers constrain the development of forest-based enterprises.

We analyze the local socio-political context, enterprise related policy provisions and institutions governing forestry enterprises to understand how policy and local practices undermine the development of forest-based enterprises. The paper draws on the experience of working with forestry entrepreneurs based in Kavre and Lamjung districts of Nepal and argues that policy instruments at the local level are impractical, conflicting, complex and subject to personal judgment despite seemingly supportive government policies, plans, and programs at the central level. We demonstrate how policies are understood, interpreted and implemented at the local level and how such practices severely constrain enterprise development and growth.

IS ACCOMMODATION 'SHARING' DISRUPTING THE REGIONAL HOUSING MARKET?

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This paper explores the role of an accommodation sharing platform, AirBnB, which is seen as a disrupter to conventional accommodation providers and housing markets in many regions worldwide. We focus on New Zealand, showing a snapshot in time of both the scale and spatial distribution of the accommodation provided through this platform. We have blended AirBnB data collected by the research team, with New Zealand (NZ) Census data 2013. This allows us to begin exploring information from the 2013 NZ Census in combination with the AirBnB data to determine some of the wider impacts of this phenomenon on populations and places.

Moreover, using exploratory spatial analysis we can uncover the spatial patterning of this disruptive accommodation sharing phenomenon. As we might expect, the traditional regional tourism destinations in NZ, Queenstown or the Coromandel peninsula for example, are areas with 'hotspots' of AirBnBs provided, but other places emerge as well. This phenomenon, accommodation sharing, poses challenges to the local authorities who collect local taxes (rates) usually based on the value of the property, with several local councils (e.g. Auckland, Christchurch) proposing or enacting specific legislation in order to better regulate and capture revenue from accommodation provided by such platforms. The longer term aim of this project is to more fully understand the social consequences for vulnerable communities and the effects on the housing market and housing affordability more broadly. The project forms part of a larger research endeavour funded by the National Science Challenge 11: Building Better Homes, Towns and Cities.

Regional Development III

AGGLOMERATION, CLUSTERS AND PRODUCTIVITY: A CASE OF SMALL EUROPEAN REGION

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This paper presents results of research conducted in the Baltic States – a small open economy region of European Union. The concept of clusters was introduced by Michael Porter in the beginning of XXI century and was widely adopted by Europe Union and other countries as one of regional development and innovations' promotion policy instrument. However, there are a lot unanswered questions on methodology of identifying clusters in small countries or regions. Canadian researchers (Spenser et al., 2010) argue that M. Porter's and his followers approach is not good enough for other countries as United States economy is quite unique and different. Thus, their approach was based on agglomeration in locations and measured by location quotient. Some of German researchers adopted input-output approach and developed it further using firm level data from tax agency (Titze et al., 2011). European Union adopted M. Delgado, M. Porter and S. Stern methodology (2013) on identifying clusters and transferred the groups of economic activities (i.e. clusters) on European scale. The same economic activities' groups as in US are used in European cluster observatory studies and reports. However, even M. Porter's followers admit that methodology of identifying clusters and clusters identified in US not always necessary be the same in other regions and countries. Looking closer at proposed by US researchers methodology it become obvious that it is based on some similarities mainly measured by linear correlation coefficient and on k-means clustering afterwards. However, there are limitations with using correlation coefficient as it could indicate the same direction of analyzed indicators, but not necessary the similarity (James et al., 2013). Also, as the main idea of clusters is based on concentration of different economic activities in a region, input-output approach is not bind to exact region in case of no exploiting the firm level data. Moreover, the European system

of classification of economic activities (Nomenclatures des Activités de Communauté Européenne - NACE) is related to CPA (Statistical classification of products by activity) and PRODCOM (PRODUCTION COMMUNAUTAIRE) and CN (Combined nomenclature) on European level. It also should be mentioned that grouping of economic activities in a region could be related not only through direct input or output ties. Thus, when exploring empirically small Baltic States region (Estonia, Latvia and Lithuania), the author exploited other economic activities' similarity indicators for cluster analysis in a period of 2008-2016. The main idea of this empirical research was to group 4-digit NACE Rev 2 economic activities of business sector by exploiting productivity and employment indicators. The preliminary results indicate clustering by productivity and full time equivalent indicator in the Baltic States. The different clusters identification approach could add to further methodological discussions and better understanding of regions specific development trajectories.

EXPLORING EVIDENCE OF SPATIAL ECONOMIC AGGLOMERATION IN EKURHULENI METROPOLITAN MUNICIPALITY, GAUTENG, SOUTH AFRICA USING EXPLORATORY SPATIAL DATA ANALYSIS APPROACHES

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As building blocks of regional economies, economic clusters have been buzzwords for economic development research since Marshall's (1890) work relating to industrial districts in nineteenth-century England. Economic clusters are credited for allowing critical masses, where agglomeration economies, primarily in the form of knowledge spillovers among firms; labour market pooling; and sharing of industry-specific non-traded inputs, provide the needed catalytic role to economic growth and development. Recently, vom Hofe & Cheruiyot (2018), while employing principal component analysis on Gauteng's Social Accounting Matrix, showed evidence of a few, but critical masses of economic clusters in Gauteng's regional economy. In addition, Pillay & Geyer (2016), using available aerial photography, together with the information from zoning and cadastral data and field survey, showed evidence of business clusters along one of the transport corridors in Gauteng. This research employs exploratory spatial data analysis approaches to analyse the spatial locations and economic sectors data of about 7 000 firms obtained from triangulation of various sources in Ekurhuleni Metropolitan Municipality, a major sub-regional economy in Gauteng and in South Africa. It attempts to answer the following questions - is there evidence of spatial business clusters, and if present, which kind of spatial business clusters are they? What is the footprint of these spatial business clusters? This research complements existing research by focusing on a larger, but detail dataset (to the point of individual geocode) in suggesting policies that ensure economic growth and development of the regional economy benefits from agglomeration economies.

THE INVENTORY MANAGEMENT AND ON-TIME DELIVERY OF AUTO-PARTS' SUPPLIERS: EVIDENCE FROM JAPANESE AUTOMOTIVE INDUSTRY

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In Japan, the relocation and penetration of Japanese car makers' factories in Kyushu region (southeast part in Japan) and Tohoku region (north part in Japan) from Aichi and Kanto in mainland Japan had affected to not only regional economy including local employments but also the inter-regional cargo movements after the bubble-economy in 1990s. For example, the key metal cast components of cars, like engines and transmission, have been still transported from major suppliers' factories at traditional area to assembly factories in Kyushu and Tohoku regions by not only trucks but also ferries, Ro-Ro ships and rail every day. On the other hand, sheets, bumper and dashboard, or relatively low value-added and bulky parts, are delivered from not only the mother factories but also their local factories/warehouses surrounding the assemble factories, and the local suppliers including in South

Korea and China to assemblers. The purpose of this paper is to investigate the differential logistics strategies or inventory management and transport mode choice of auto-parts' delivery on components and car makers on the case studies. We had interviews for major auto-parts' suppliers providing different components, and belonging to different Japanese car makers' group and independent suppliers in 2017. As the results, high value-added parts, or engine and transmission, have been still directly delivered to the remote-assembling factories by rail and sea transports because of high production cost including set-up cost, inventory costs and high quality control needed at central factories. However, other common auto-parts are transported to suppliers' local factories/warehouses for their order-delivery and on-site production based on production schedule at assembly factories. Indeed, their logistics strategies are different from total supply chain costs including set-up cost at parts' factories and scale economy, or huge investment costs of parts' factory, and scope economy, or on the same production line, of production.

Regional Resilience and Wellbeing I

ASCERTAINING LOCAL WELLBEING - THE HIDDEN MINEFIELD

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Average levels of personal (subjective) wellbeing vary across regions and within regions by locality. While commonly described on the map from a spatial equilibrium perspective such variations are an anomaly (Morrison, 2011).

In this paper I draw on three other theoretical ideas – mainly from behavioral economics - which help explain why we observe differences in subjective wellbeing between localities. The first idea addresses how expectations preceding and following internal migration generate the satisfaction dynamics associated with place adjustment (Sloan and Morrison, 2016). The second idea is embedded in prospect theory which explains why risk aversion in the presence of endowments can delay adjustment (Morrison and Clark, 2016). And the third is the emerging theory of contagion effects used to explain the negative relationship between the mean and spread of wellbeing within communities (Morrison and Dickinson, 2018). Complicating empirical estimation of these influences are the largely unaddressed identification issues known collectively as the 'reflection' problem (Manski, 1993). The paper is illustrated with New Zealand examples.

PROMOTING CITIZENS' WELLBEING AND QUALITY OF LIFE THROUGH FINANCIAL ENGINEERING INSTRUMENTS – REPLICATING THE INNOVATIVE EU POLICY APPROACH?

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The Joint European Support for Sustainable Investment in City Areas (JESSICA) was a policy initiative of the European Commission introduced for the programming period 2007 to 2013 that is now prolonged until 2020. Its objective is to enhance citizens' well-being and quality of life especially in those European cities and regions with a perceived shortage of investment dedicated to integrated urban regeneration projects. At the same time, JESSICA marked a general paradigm shift in EU policy, as it replaced traditional public aid with "lost" grants by financing urban development with revolving financial instruments – i.e. equity capital, loans and guarantees – through means of urban development funds (UDFs). Successful projects may generate a capital backflow enabling regional Managing Authorities to reinvest in further urban projects and thus create a long-term self-sustaining financial model. Thus, the intention of introducing these financial engineering instruments is to remove – or at least reduce – funding constraints on urban policy.

The core challenge of this innovative policy approach is to combine financial engineering with urban planning. In order to be eligible for UDF-funding, urban development projects therefore have to render a (moderate) financial return in order to sustain the fund capital and at the same time a “social return” that enhances the well-being of the respective citizens. Concerning the latter, existing fund themes include UDFs dedicated to financing technical or social infrastructure, urban regeneration, smart cities or energy efficient renewal.

Since JESSICA is also continuing in the current EU-programming period until 2020 – with revolving financial instruments now no longer being the exception but the rule – the crucial question is to what extent the new policy approach has indeed rendered a benefit so far. The lessons learned from ten years of JESSICA are not only valuable for European policy, but might also be interesting for political decision-makers around the world who face funding constraints and thus could benefit from replicating the idea of revolving financial instruments outside of Europe. Since especially the UDFs funded in the UK have already proven to be one of the most successful UDFs in Europe, they might function as excellent role models for replicating the idea especially in other Anglo-Saxon countries like New Zealand and Australia.

Thus, in our presentation we pursue four objectives: (1) we develop a conceptual base to efficient urban development funds and (2) present the first empirical evaluation of the policy approach taking into account all UDFs founded in the 28 EU member states. Based on our findings, (3) we derive key success factors for sustainable urban finance in general and (4) give recommendations to political decision-makers how to set up efficient financial designs in the form of “best practice UDFs” that are able to promote well-being and quality of life by sustainable urban development also outside the European Union.

EXAMINING THE INTERPLAY BETWEEN RESILIENCE AND ENTREPRENEURSHIP: EVIDENCE FROM THE US AND THE UK

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This paper analyzes how entrepreneurship impacts on regional economic resilience in terms of labour market outcomes, and structural shocks, and by extension, whether the promotion of entrepreneurship serves as a viable regional development strategy across the broad goals of growth, inclusion, and resilience. We explore these effects across different geographies in the US and the UK and compare the outcomes in context.

Recent empirical work based on regional endogenous growth models suggests that entrepreneurship has an important role in economic growth beyond the direct employment gains generated by successful entrepreneurial ventures. Business dynamism has been shown to contribute positively to future regional employment growth through information spillovers, with entrepreneurs able to learn from the successes and failures of predecessors. This work pioneered both the concept and empirical evaluation of the concept of geographical informational asymmetries (GIA), in a unique spatial application of Akerlof’s seminal work, leveraging frontier instrumental variable techniques.

However, during a macroeconomic shock, there is scant evidence of the benefits of entrepreneurship to mitigating or overcoming the negative impact of crises. This has led to a deeper examination of potential causes utilising local level data on enterprise births and deaths together with the concept of

business dynamism. The examination includes data from the US and the UK and employs a panel data econometric specification. The results suggest that entrepreneurial performance and business dynamism have differing effects during the crisis and the recovery periods. The policy implications suggest that the positive results of entrepreneurship are less pronounced during economic downturns and hence, in this period, there is a particular need for increased assistance to newly born firms.

Regional Resilience and Wellbeing II

EMPIRICAL WELLBEING APPROACH TO TOTAL IMPACT REPORTING

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This paper provides a solution for total impact reporting of investments in community regeneration. Recent discussions of assessment of economic outcomes of urban development investments have not provided comprehensive practical solutions for economic assessments. This paper describes the tool that we developed for the Tamaki Regeneration Company (TRC) that sought to account for both fiscal and economic benefits. Since regeneration outcomes include a wide range of social and economic net benefits of regeneration investments, our tool accounts for wellbeing outcomes.

For estimating the fiscal benefits, we estimate the effects using CBAX approach and the Intervention logic maps, capturing the likely effects on neighbourhood regeneration, including social housing; and affordable housing, including jobs and skills, social enterprises, environment and economic regeneration.

The wide range of activities involved in regeneration increase the chances of biased estimation, and particularly double-counting, of the net benefits. Also, due to their social and economic nature, regeneration activities are difficult to quantify. For assessment of the wellbeing outcomes we use residential satisfaction as the outcome (Torshizian, 2017 & 2014).

Our method provides TRC with a summary as well as a decision making tool that captures economic net benefits to Tamaki residents of TRC's investments by accounting for the wellbeing of the residents.

RESILIENCE THROUGH BUILT ENVIRONMENT INTERVENTIONS IN A RURAL CONTEXT: USING DELIBERATION WITH ANALYSIS TO ADDRESS CLIMATE AND HEALTH IMPACTS IN THE GREAT LAKES REGION

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The connection between climate change and the constructed environment is one that has been explored in great detail (for example, Foss, 2016; Meerow and Mitchell, 2017). However, the public health impacts of climate change, and how they can be addressed through built environment interventions is less explored in both academic literature and the practice of adaptation planning. The Michigan Climate and Health Adaptation Program (MICHAP), addresses this gap by directly connecting the impacts of climate change on the public health of vulnerable populations to built environment decisions, through the interaction of planners, public health experts, and citizens to develop interventions. In developing a range of recommendations around the key areas of education and inclusion, landscape actions, policy, and surveillance and tracking, MICHAP adds tangible metrics to

policy recommendations allowing the community to track public health outcomes of constructed environment interventions.

Community priorities in the design and planning process are shaped via the Deliberation with Analysis model of public participation, a process to integrate local residents' knowledge and values with local climate data (Crawford et. al., 2018). Strong community engagement ensures that plans reflect not only the serious impacts of climate change felt on public health but more importantly allow for local solutions to be developed through constructive dialogue and partnership. This work seeks to address what Foss (2016) has noted before, the challenges of getting local government and communities to support and engage in climate action. Through this Deliberation with Analysis model of participation, MICHAP works through U.S. Centers for Disease Control funding and in partnership with university researchers to engage community residents and stakeholders to develop, pilot, and evaluate interventions addressing priority health impacts. This applied research uses Deliberation with Analysis in rural Marquette County, Michigan, a Great Lakes community grappling with the impacts of climate change on public health.

DEVELOPMENT OF THE AUCKLAND HEAT VULNERABILITY INDEX

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Auckland is expected to face major impacts from a changing climate over the coming decades. Auckland currently experiences 20 hot days each year, which contribute to a proportion of the 14 heat related deaths per annum recorded for the over 65 age group in Auckland and Christchurch. Hot days are projected to increase four-fold, to over 90 days per annum, by the end of the 21st century based on a business-as-usual scenario.

Exposure to extended periods of extreme heat can have severe physiological consequences and exacerbate mental health conditions. Globally, severe heat events have been correlated with premature deaths in many cities. As a result, the development of heat vulnerability indices and associated heat action plans are becoming more commonplace.

The impact of extreme heat does not have a homogenous affect across a community; environmental, physiological, social and economic factors increase individual and community vulnerability to extreme heat. A heat vulnerability index (HVI) developed at Auckland Council will inform the policy and action response to climate change, known as the Auckland Climate Action Plan (ACAP). Using GIS and data collated at the census area unit (CAU) level, hot spots of vulnerability in the Auckland Region were identified. The HVI used 10 vulnerability indicators representing environmental, physiological, social and economic factors. Data on increasing hot days over three time-periods (2040, 2090 and 2110) were overlaid with the combined vulnerability indicators to create an overall heat vulnerability score. The ranked scores then indicate areas where policy and adaptive actions should be focused.

Regional Resilience and Wellbeing III

FORCED INNOVATION: SMALL BUSINESS PREPAREDNESS AND RESPONSE TO NATURAL DISASTERS

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The impact of natural disasters and extreme climate events, such as bushfires, floods and droughts, can be devastating and disruptive to economic activity. For small and medium sized businesses, the results can include business closures, loss of skilled employees and decline and delay in investment in business assets and innovative activities. Much of the empirical research on business recovery post natural disasters has focused on how businesses return to business-as-usual and the costs and timing

of this process. However, the innovation capacity and processes of firms, both individually and collectively, as a business community are critical precursor for preparedness and a key ingredient recovering from natural disasters, and developing future resilience.

This paper details four case studies of business preparedness, impacts and response to natural disasters (bush fires and floods). The case studies highlight the activities of businesses and business organisations, before and after the natural disaster events, and reflects on how individual businesses and the business community changed in response to the event, and the role of innovation and innovations processes in these responses.

Business and economic resilience planning for natural disasters is not done with the same emphasis as community, or infrastructure recovery, even though the business community is pivotal to post disaster recovery. The paper concludes with recommendations for planning for business and economic recovery in natural disaster-prone areas. This type of planning will be of increasing importance into the future as climate change increases the severity and frequency of extreme weather events and natural disasters.

SUBSIDIZATION AS A FACTOR OF THE RESILIENCE OF REGIONAL ECONOMIC SYSTEMS IN RUSSIA

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In theoretical studies on issues of socio-economic development, when studying the regional resilience, emphasis is placed on the ability of the economy to overcome crisis phenomena during periods of recession and to recover, either returning to its former state or entering a new growth trajectory.

We analyzed the influence of the resilience of the subnational budgetary system on the stability of their economy and the intensity of economic growth (the project is supported by Russian Foundation for Basic Research, grant № 18-010-00771). Based on the analysis of data from the Russian Federal State Statistics Service for the period 1998-2016, it is shown that high resilience during periods of crises and the most intensive growth of the economy are observed in highly subsidized Russian regions. At the same time, the dependence between the quality of financial management and the economic growth of highly subsidized regions is not revealed.

The imbalance of regional budgets over the past five years has led to a loss of fiscal sustainability in the regions. In general, until now, the issue of restoring the balance of regional budgets, and in particular of the fiscal sustainability of the regions, is far from being resolved and clearly requires the participation of the Federation. The role of intergovernmental fiscal transfers from the federal budget is obvious, since the level of income differentiation before granting subsidies for equalizing the budget provision differs dozens of times for regions and hundreds of times for municipalities.

Thus, regular transfers from the federal budget is currently one of the most important factors in the sustainability of regional economic systems. At the same time, federal authorities should pay attention to the non-targeted financial support of the regions and clearly define the policy of territorial development.

REGIONAL RESILIENCE IN STRATEGIC PLANS IN RUSSIA

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Russia consists of 85 regions (the constitutional entities) located in ten time zones and various climatic areas. In this regard, the crucial specificity of regional development in Russia is that a value of regional disparities is enormous. The scale of that differentiation is accounted by dozens for regions and

hundreds for municipalities. Moreover, such issues of territorial organization of economy as an uneven distribution of natural resources, low population density, sparsity of the cities, and the increased costs of overcoming long distances lead to the widening the gap between regions. Reducing these disparities was the main aim of regional policy in Russia during last two decades.

In this research supported by the Russian Foundation for Basic Research (project No. 18-010-00771), we determined the nature and degree of regional economic systems resilience for different types and ranks of Russia's regions to the impact of geopolitical, economic, social, technological, and other internal and external factors in the face of global development. Identification of this interdependence makes it possible to develop recommendations on adequate measures to determine the priorities of the country's spatial development, preserve the viability of regional systems under crisis, and reduce external threats to balanced social and economic development of regions.

The originality and novelty of research and conclusions are, firstly, in the theory of regional resilience which has not been adapted to domestic science yet, and secondly, it is extremely important to develop the scientific basis for the regions' capabilities to respond to the challenges of global development.

We studied a pool of federal legal normative acts on it using comparative analysis including different strategic plans. Since 2014, Russia expressed a new stage of regional strategic planning after the adoption of the federal law on it. Many new or amended regional strategies started to realize. However, application of this approach has not been used in the development of various strategic plans at the federal and regional levels.

Research on Metropolitan Issues

URBAN AGRICULTURE IN JAPAN: CHALLENGES AND OPPORTUNITIES FOR SUSTAINABILITY AND LOCAL WELLBEING

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Sometimes regarded as a sign of developmental failure, a nuisance or simply nonsense, the truth is that urban agriculture has experienced a renaissance in recent years. Momentum has built around agglomerating social movements concerned with community access to fresh, locally grown foods. Urban planners are seeking innovative solutions to the social and environmental challenges imposed by an urbanizing world, and scientists are looking to urban ecosystems as providers of vital ecosystems services — such as foods, heat island control, water management — that are able to boost local wellbeing and reduce the ecological footprints of cities. Japan is quite a unique case of urban agriculture. Despite being a highly industrialized country, the presence of agricultural land use is a common feature on the urban landscape of cities across the country. It Almost one third of all agricultural output in the country is in fact generated by urban agriculture. Likewise, urban farmers account for one quarter of farming households in Japan, almost doubling the number of farmers found in rural inter-mountainous areas. Furthermore, Japanese urban agriculture is more productive than its rural counterparts. In terms of economic value of production, urban farming is the most productive kind of agriculture — 3% more productive than the national average. In terms of revenue per farmer, urban agriculture is two times more profitable than inter-mountainous and around 10% more so than agriculture in rural plain areas. This paper presents an overview of the challenges of urban agriculture in Japan —including demographic, planning and sustainability aspects, as well as the opportunities for strengthening the roles of Japanese urban agriculture for sustainability and local wellbeing, including governance, economic, environmental and social aspects.

NON-EQUILIBRIUM DYNAMIC SIMULATION OF SPATIAL EVOLUTION OF THE POLYCENTRIC STRUCTURE IN METROPOLITAN AREA IN CHINA

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Since the 1990s, cities in China have experienced a period of rapid growth. In face of the increasing complexity of the urban sprawl, many big cities are planning to build new towns to avoid over-intensive population and infrastructure construction and to ease the pressure on urban centers. Some findings show that the rapid increase of the share of service industries in the local economy can raise the probability of the emergence of subcenters. This paper builds a mathematic model of spatial structure of metropolitan area base on the theory of New Economic Geography in old and new center scenario. By using agent-based modeling and out-of-equilibrium simulation, the spatial structure of subcenters can be observed dynamically in different scenarios. Spatial evolution is path dependence. Dynamic simulations show that (1) Size matters a lot. Population growth in metropolitan area is conducive to subcenters which implies the commercial centers emerged in the suburban area were mostly subjected to population pilot policy. (2) Demand remains important. The continuous growth of demand scale and capacity depend the formation of the polycentric structure in metropolitan area. The capacity of consumptions has outstanding impact on agglomeration of subcenters. (3) Fixed cost and transport cost help a lot. The greater the gap of commercial fixed input between the new and old center is, the more imbalanced urban space distribution would be, and more easy to form the core-periphery structure. If the fixed costs are reduced continuously in suburban area, it is beneficial for the formation of subcenters and the core-periphery structure of metropolitan area could be changed gradually. (4) Transportation is a double sword. Commerce and business tend to gather in the place with location advantages, and continuous improvements in traffic condition between old and new center in metropolitan area will accelerate the spatial concentration in old center. The probability of the emergence of subcenters decreases with the increase of the distance to the city center, which implies the subcenters emerged in the metropolitan area were mostly close to the central area of the city and the decentralization of population in the metropolitan area was still limited in spatial scale. (5) Due to love-of-varieties, the specialization and diversity contribute much to the formation of subcenters in metropolitan area by continuous innovation and difference-making competition strategy.

ECOLOGICAL FRAMEWORK OF THE LARGEST CITIES IN RUSSIA

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The current state and configuration of the ecological framework as a set of undeveloped and unsealed green areas providing ecosystem services is the most important factor that determines the prospects for further development of the country's largest urban agglomerations. The real boundaries of agglomerations and significant differences in the initial physical and geographical conditions have generated a variety of modern urban situations, expressed primarily in the dispersion, dimension and layout of the elements of green infrastructure in big cities, which allows us to distinguish different types of environmental frameworks with different problems of their further development. General planning as a procedure designed to ensure the development of promising areas for the development of agglomerations, including in terms of a comfortable urban environment needs significant methodological updating.

We studied green infrastructure of the 15 largest cities of Russia. General features of the ecological framework are analyzed on the base of statistical and remote sensing data, the main problems of its territorial planning are identified and possible mechanisms for their solution are proposed. The key indicators of the structure evaluation of the framework are proposed and calculated, the protection status of its elements is estimated, based on which the cities with unfavorable conditions for its preservation are identified. It is defined that in the largest cities the share of a tree cover from the city square fluctuates from 16 per cent (Volgograd) to 61 per cent (Perm). In three largest cities (Omsk, Yekaterinburg, Krasnoyarsk) less than 1 per cent of the area of a tree cover is protected. The mapping models of framework for each of the cities are presented and three typical configurations are identified. The obtained results are compared with various domestic and international regulatory indicators of greening, which leads to the conclusion about the individual features of the structure of the ecological framework of each city.

Smart Cities

THE GIGATOWN COMPETITION IN NEW ZEALAND: COMPETITION AS DIGITAL INFRASTRUCTURE ALLOCATION?

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The Gigatown Competition (2013-2015) was a joint initiative between the telecommunications company Chorus and the New Zealand government to award a New Zealand town 'the fastest internet in the Southern Hemisphere' through a social media competition. Towns accrued points based on the volume of social media content related to the Competition and the benefits of ultra-fast broadband (UFB). I undertake a discourse analysis of select promotional materials and participation in the Competition to show how support for UFB as a necessary infrastructure for the New Zealand economy was achieved. I argue the Gigatown initiative mobilises a form of community participation in information and communications technologies (ICT) infrastructure premised on urban centres and towns competing against one another for their future viability. The success of the Competition and enthusiastic participation of towns in South Island can be contextualised by the governing and economic rationalities of urban austerity, where municipal councils must look to competitively leverage existing resources and external forms of revenue at a time of decreasing national funding.

CATAPULTING OVER COMPLEXITY: AN ASSESSMENT OF INDIA'S SMART CITIES MISSION

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The Smart Cities mission in India provides funding to municipal governments for executing urban infrastructure projects, particularly those that apply advanced technology to urban management. The policy is unique because it is one of very few instances globally where the state, at the central level, has taken it upon itself to shepherd local governments through the process of becoming "smart". 100 cities have been approved for funding under the first round of applications.

This paper presents an analysis of the conceptualization and implementation of the Smart Cities mission. The analysis draws on interviews with bureaucrats and professionals, as well as secondary information, including submissions made by the various cities in order to obtain funding. Further, we have attempted to unpack some of the narratives and metaphors deployed by officials and professionals associated with the mission.

Although an admirable effort, aimed at shaking up the dysfunctional state of affairs, India's Smart City mission shows evidence of several systemic weaknesses. Major problems identified include (a) the deprioritization of existing planning institutions, and (b) the short shrift paid to participatory processes. Thus the mission appears to miss an opportunity for the reform and strengthening of urban local bodies. Indian cities face a variety of well-documented problems, including lack of water and sanitation, inadequate public transport, poor air quality, segregation, squatter settlements etc. The reason for these problems is not the lack of technology. Nor can technology work effectively until institutions are robust enough to allow it to do so. Our research shows that the Smart Cities mission shows a certain naivety regarding the processes of urbanization and the causes for urban problems. Government agencies would do well to embrace the complexity of Indian cities and focus on making systems more robust in collaboration with citizens.

ECONOMIC PERFORMANCE OF CITIES IN INDONESIA: AN IMPACT ANALYSIS OF SMART CITY CONCEPT IMPLEMENTATION

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Since 2012, many local governments in Indonesia have independently initiated city development by implementing the concept of 'the smart city'. The concept of the 'smart' city aims to solve various problems of cities efficiently and effectively to improve the quality of life of urban communities, through the use of information and communication technology. The smart city concept includes not only the use of technology but also human capital, social and environmental issues as indicators of smart city attributes. As the central government of Indonesia launched its programme 'The Movement Towards 100 Smart Cities' in 2017, it is important to measure the success of city development in terms of the smart city concept. This study aims to estimate the effect of smart city concept implementation on the economic performance of cities in Indonesia. The study adopted the city smartness indicators proposed by Giffinger (2007), namely smart economy, smart people, smart governance, smart environment, smart mobility and smart living to explain the differences in economic performance of each city. However, the application of smartness concepts is adjusted to the conditions of cities in Indonesia. This research applies two-stage least squares (2SLS) regression and instrument variables (IV) estimations. The analysis examines the application of the smart city concept in each city by looking at the influence of the application of the smart city concept – with various instruments of urban smartness – on their economic performance. Each city has different characteristics and smart city programme implementations, but their goals are, of course, the same: to improve the performance of the city in solving urban problems effectively and efficiently to create improved welfare and quality of life in urban areas. Economic performance can be described through the per capita gross domestic regional product (GDRP) of each city. The results prove that the implementation of the smart city concept in districts or cities in Indonesia has a significant positive effect on the economic performance of cities in Indonesia. The most influence factor is the level of internet penetration that determines the probability of the city applying or not applying the smart city concept. Therefore, it can be concluded that the level of internet penetration as an aspect of smart mobility, plays the most important role in urban development resulting from the application of the smart city concept.

Moreover, just by combining two other factors becomes the level of internet penetration, flood events and the accountability of local government, the effect of these smart city concept on the economic performance of cities become greater. In other words, to improve its economic performance a city should focus on three aspects of urban 'smartness': smart mobility, smart environment and smart governance.

GOVERNANCE CHALLENGES FOR REGIONAL INNOVATION IN AUSTRALIA: THE HUNTER VALLEY AND LATROBE VALLEY EXPERIENCES WITH SMART SPECIALISATION

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Many academics have explored the governance challenges in Australian regions, in both cities and non-metropolitan areas. The difficulties of coordination across Australia's multilevel government structures, the interplay with non-government actors and the fragmented arrangements for resourcing all recur in these discussions.

Various efforts, at times systematic and at others ad hoc, have been made to address these challenges. Regional Development Australia, and the place-based committee structure, represents one such arrangement, while the Murray-Darling Basin Authority represents another.

The early interest in Australia in experimentation with the European Union 'smart specialisation' approach to regional development has illustrated the issue of governance sharply, and demonstrated how different responses can undermine or support place-based innovation and development strategies. This paper will explore these questions through a comparison of the implementation of smart specialisation in the Hunter Valley, New South Wales, and the Latrobe Valley/Gippsland, Victoria, and its implications for efforts to develop regional sustainability in Australia.

SMART SPECIALISATION IN AUSTRALIA: POLICY MOBILITY OR EXPERIMENTALIST POLICY?

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Regional development and regional policy have very different traditions, meanings and practices in Australia compared to Europe. Different from other regional development contexts internationally, Australian regions are defined, not by what they are, but by what they are not: non-capital-city places (Eversole, 2017). Moreover, regional economies in Australia (encompassing regional, rural and remote Australia) are typically (and often deliberately) derivative providing primary commodities for national and international markets (Wilson et al., 2015). This implies major 'translational' challenges for regional development models that emphasize innovation, entrepreneurship and discovery (Veldhuizen, 2016), such as the EU-based smart specialization approach. Pressured by the transition from a resource to a knowledge economy, governments in parts of the country, such as Gippsland in South-Eastern Victoria, have begun to adopt policy strategies and tools associated with Regional Innovation Systems approaches and Smart Specialisation. The question that this paper explores, is whether and how the industrial, institutional and social dimensions in Australia, which vary markedly from those in Europe where these theoretical and policy frameworks have largely developed, influence their ability to bring about change.

In analyzing this question, the paper compares Australian Smart Specialization Strategies as policy mobilities versus policy experimentation. The former emphasizes the models, mechanisms and limitations of global policy transfer (Peck and Theodore, 2010) while the literature on policy experimentation would emphasize that Smart Specialisation builds on a longer tradition of regional experimentalism in Europe (Coenen, 2017) that aims to promote partnerships between the private and public sectors, facilitate the exchange of know-how within and beyond the regions to overcome parochialism and, finally, to mainstream the positive lessons of local experiments (Morgan, 2004).

These literatures provide profoundly opposite perspective on the feasibility of smart specialization in Australia and allow for a critical reflection on and theoretical enquiry into the merits and limitations of smart specialization as a travelling policy approach both within and beyond the EU.

Spatial Justice and Inequality

GOVERNANCE, INSTITUTIONS, AND URBANISATION FUZZY IN CHINA: AN INTERNAL COLONIALISM PERSPECTIVE

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The concept of internal colonialism has been widely used to study the subordinating, oppressive, and exploitative relations between dominant and ethnic minority groups within a country with a colonial history. This paper extends the notion to examine the systematic inequality between urban and rural classes in China, which although was not entirely colonized in the nineteenth and the first half of the twentieth century, it has resembled more or less the governance and institutional features of internal colonialism. Focusing on the government's policy of the so-called new approach to urbanisation, the paper tries to understand the underlying factors that leads to the increasing tensions in urbanisation. Drawing on the documentary analysis and data from interviews with variety of stakeholders, it finds that internal colonialism provides a fundamental mechanism through which both national economic development and urbanisation become a means to exploit rural class, not only in economic, social, and geographic terms, but also in terms of culture and politics. While social and economic inequality exists mainly between urban and rural classes, geographic inequality is closely linked to the assignment of a place into a specific position in the hierarchical settings of administration, assuming different autonomy of decision making and enjoying associated allocation of resources. The paper concludes that the colonial nature of governance and institutions not only shape policies of land, population mobility, employment, public spending, social security and services, and local and regional development, but also foster a colonial culture exploiting, subordinating, and oppressing rural class.

COMMODITY RELATIONS AT THE MARGIN: INDIGENOUS MODERNISATION AS A MACHINE OF DIFFERENCE

Junxi Qian, The University of Hong Kong, Hong Kong

While the expansion of capitalist and commodity economic relations into indigenous communities has been widely discussed in the literature, most studies suggest that indigeneity either provides a source of cultural resistance and alternative economies, or is destined to be assimilated and marginalised by totalising development and market forces. But the ways in which indigenous difference is exploited, even manufactured to facilitate and advance capital and commodity relations have not been sufficiently theorised. This presentation follow's Anna Tsing's recent theoretical intervention, which argues that capitalism is increasingly reliant on, rather than antithetical to, non-capitalist elements such as race, ethnicity, cultural difference, etc., to enact its relations of production and power. This presentation elucidates this point by examining indigenous development in Lugu Lake, Yunnan Province, China, triggered by the massive inflow of tourism capital and entrepreneurs. We look at two groups of indigenous people: indigenous landowners who let their lands to outside entrepreneurs but have gradually withdrawn from the direct operation of tourism related business and hospitality, and indigenous people who do not let lands but work as sold labour in the establishments run by outside entrepreneurs. Our research indicates that, on the one hand, indigenous people are not universally disempowered by the entrenchment of commodity economy. Not only do they have access to income generated by local development, but also reconfigure their subjectivities to incorporate ideas of private property and competition, and modern standards of civility. On the other hand, however,

rhetorics of their social and cultural difference are constructed by themselves and outsiders to make sense of, and legitimate, outside entrepreneurs' monopoly in local tourism economy and the lack of career aspirations among the indigenous people.

THE ROLE OF LOCALLY PROVIDED SERVICES OF GENERAL INTEREST IN DELIVERING SPATIAL JUSTICE

Gergely Tagai, MTA KRTK, Hungary

The main role of any regional policy (e.g. cohesion policies of the European Union) is related to the reduction of inequalities between different areas in terms of social and economic opportunities. Inequalities might be interpreted as signs of injustice among members of the society. The concept of social justice is largely built on the interrelated notions of fairness, solidarity and cohesion, and it expresses the need of equity within the society in terms of wealth, opportunities and privileges. Social processes and characteristics are always spatial ones too, thus spatial features might also contribute to evolution or development of just and unjust conditions. In this way, spatial justice by representing the spatial dimension of social justice, is related to the just distribution of resources, opportunities and power relations between social groups and spaces.

An essential question related to social/spatial justice is how members of the society can access services (of general interest). Different territories might face different levels of injustice regarding the availability, affordability of and access to services of general interests. At the same time, the provision of basic services could significantly contribute to goals of spatial justice by mitigating effects of these differences. How different types of services could serve as effective instruments in delivering justice is widely depend on the way they are provided and are adapted to local facilities.

As a part of the RELOCAL Horizon 2020 research project which focuses on resituating the local in cohesion and territorial development within the European Union, the paper aims at assessing the role of locally provided services of general interest in promoting spatial justice in European countries by reviewing policy documents and using case study materials carried out within the project. This goal is also driven by the intention of identifying local-level bundles of services that promote spatial justice and actor groups that are central to their provision.

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Special Session: Supporting Success in Regional Settlements

AMENITIES AND THE ATTRACTIVENESS OF NEW ZEALAND CITIES

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Kate Preston, Motu Economic and Public Policy Research, Aotearoa New Zealand,

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As a contribution to the “Building Better Homes, Towns and Cities” National Science Challenge (NSC11), our focus is on what characterises “better towns and cities”. Specifically, we analyse which factors attract people and firms (and hence jobs) to different settlements across New Zealand.

Using theoretically consistent measures derived within the urban economics literature, we compile quality of life and quality for business indicators for 130 ‘cities’ (i.e. settlements) from 1976 to 2013, using census rent and wage data. Our analyses both include and exclude New Zealand’s three largest cities (Auckland, Wellington, Christchurch). Places that are attractive to live in tend to be sunny, dry and near water (i.e. the sea or a lake). Since the mid-1990s, attractive places have also had relatively

high shares of the workforce engaged in education and (to a lesser extent) health. Attractive places have high employment shares in the food, accommodation, arts and recreation service sectors; however (unlike for education and health) we find no evidence that quality of life is related to changes in the employment share for these sectors. The quality of business is highest in larger cities, and this relationship is especially strong when the country's three largest cities are included in the analysis.

Extensions to the analysis – that are underway – examine how these same factors (i.e. quality of life and quality for business) have affected location decisions of people that left Christchurch following the earthquakes of 2010/11, and how they affect the location choices of graduates from the country's universities and polytechnics.

SENSE OF PLACE, CONNECTEDNESS, BELONGING, MANA WHENUA AND UKAIPŌTANGA AS ELEMENTS IN THE CREATION OF BETTER TOWNS FOR MĀORI

Jonathan Kilgour, University of Waikato, Aotearoa New Zealand

Advancing a proposition for better towns and cities for Māori requires consideration of culturally-specific notions of sense of place, connectedness, belonging, mana whenua and ukaipōtanga. Revitalisation of regional settlements must cater to histories, connection and the identity of tangata whenua within settlements. It also requires an analysis of population dynamics given the geographic dispersion of Māori away from their tūrangawaewae. These structural changes are part of the narrative about revitalisation of regional settlements and the sense of place that tangata whenua have. Our study enquired into tangata whenua perspectives on the revitalisation of three regional settlements in the North Island - Pōkeno, Huntly/Rāhui Pōkeka and Ōpōtiki. The study used a strengths-based approach, based on a combination of Durie's Te Pae Mahutonga model and Flora and Emery's Community Capital Framework, to assess and measure the wellbeing and capabilities of those three regional settlements. Using an exploratory measurement framework, a data visualisation tool and qualitative evidence, the study considered the regeneration and revitalisation opportunities in these places in an inclusive and pro-Māori perspective. While this project speaks to tangata whenua interests and perspectives in regional development, it also forms part of a collective narrative for collaborative revitalisation of regional settlements as a whole.

TOURISM-LED REGENERATION: THE NEED FOR LEADERSHIP AND STRATEGIC THINKING IN SMALL REGIONAL TOWNS

Harvey Perkins, University of Auckland, New Zealand

Michael Mackay, Lincoln University, Aotearoa New Zealand,

Malcolm Campbell, University of Canterbury, Aotearoa New Zealand

Deborah Levy, University of Auckland, Aotearoa New Zealand

Raewyn Hills, University of Auckland, Aotearoa New Zealand

We report a study of Timaru, in New Zealand's South Island, focusing on attempts to realise the potential of a currently underdeveloped visitor economy. In this small town (population 30,000) with an economic base in food processing, agricultural servicing and allied transport infrastructure there is a growing interest in using tourism to further diversify the economy and support the development of services for visitors and locals. Using an interview-based qualitative fieldwork approach we have examined these regeneration efforts which have raised questions about leadership and planning linked to the capacity to raise the funds needed to pay for appropriate expertise and allied operational activity. Our study has illustrated the challenges facing those who want a more strategic and integrated approach to tourism development and show how this is easier to talk about than implement. On the basis of our fieldwork and ongoing literature review we believe a good starting

point for further development will depend on bringing diverse actors, networks, and resources together collaboratively to initiate a process of strategic tourism planning that goes beyond place promotion and activity and services advertising.

PROPERTY-LED REGENERATION: UNDERSTANDING AND SUPPORTING SMALL TOWN COMMERCIAL PROPERTY DEVELOPMENT INITIATIVES

Deborah Levy, The University of Auckland, Aotearoa New Zealand

Raewyn Hills, The University of Auckland Business School, Aotearoa New Zealand

Harvey Perkins, The University of Auckland Business School, Aotearoa New Zealand

Michael Mackay, Lincoln University, Aotearoa New Zealand

Malcolm Campbell, University of Canterbury, Aotearoa New Zealand

We report a study of Timaru and Ashburton, neighbouring towns in New Zealand's South Island, focusing on the roles of private property developers in regeneration initiatives set in small regional settlements. The focus of our work is the ways local property entrepreneurs can be enabled to contribute to the regeneration of these second-tier settlements. The topic emerged serendipitously during our reading of local media and interviews with local authority planners and politicians, and property entrepreneurs interested in the provision of commercial, retail and hotel premises. The latter are engaging passionately with town centre development projects, but are also reporting variable experiences dealing with the institutions who fund and regulate property development – particularly banks and local authority planning departments. Our unfolding analysis points to the importance of locally based and committed benevolent investors in getting any form of commercial property built in small towns but who typically have very little experience in the development of such property. We argue that in small towns there is a need to find ways of encouraging the efforts of these developers and valuing their commitment while at the same time ensuring the best possible environmental and service outcomes.

REGENERATION IN THE TOWN OF OAMARU

Nick Taylor, Nick Taylor & Associates, Aotearoa New Zealand

Michael Mackay, Lincoln University, Aotearoa New Zealand

Harvey Perkins, University of Auckland, Aotearoa New Zealand

Karen Johnston, Lincoln University, Aotearoa New Zealand

The Oamaru case study of BBHTC provides an analysis of Oamaru's past, present and future initiatives for regeneration – efforts to make Oamaru a better place in which to live, work and invest. Findings are focused on three ongoing and interrelated sets of initiatives evident since the town and district experienced a period of marked economic decline and population loss in the 1980s. The first set of initiatives is local in nature and proved fundamental to providing the initial momentum of regeneration. These initiatives are around planning and implementing regeneration of the Victorian heritage precinct of Oamaru stone buildings in the harbour area and along the main street, the eco-tourist attraction of the blue-penguin colony and visitor centre, and rejuvenation of the waterfront. The second set of initiatives is based around the Alps to Ocean (A2O) cycle trail, part of the New Zealand Cycle Trail, initiated and organised by local groups, councils, the Department of Conservation, Meridian Energy and local businesses. The third set of initiatives is broadly involved with the current Geopark proposal led by the Waitaki District Council in conjunction with partners including Ngāi Tahu, University of Otago, Vanished World and others. The Geopark began as a local and then district initiative, then upscaled over the last year as the New Zealand proposal put forward for formal recognition by UNESCO. The Oamaru case study utilises the combined approaches of realist evaluation and social assessment. We argue that an essential element to success in regional

regeneration is the ability to mobilise local resources and external inputs in an integrated strategic approach that can include a mix of planning instruments. Plans provide strategy and guidance, especially when there is a strong underpinning of community input. We also observe that it is important to build local capacity in regeneration by encouraging multiple leaders and organisations. An important finding is the need for integration across strategies, plans and initiatives, especially when dealing with multiple sites and a large number of heritage buildings and projects.

HARNESSING THE HINTERLAND: STRUCTURAL CHANGE AND LOCAL RESPONSE IN RURAL AND SMALL TOWN NEW ZEALAND

Sean Connelly, University of Otago, Aotearoa New Zealand

Etienne Nel, University of Otago, Aotearoa New Zealand

Ann Pomeroy, University of Otago, Aotearoa New Zealand

Michelle Thompson-Fawcett, University of Otago, Aotearoa New Zealand

Over the last 70 years rural and small town New Zealand has experienced significant structural change resulting from global and internal economic transformation, the growing significance of post-industrialism, neo-liberalism, demographic shifts, social transformation and governance changes. In turn these changes have impacted on community well-being and local-level governance, including the role played by local government, local rūnanga and community groups more broadly as they have grappled with processes of change.

In this presentation we review findings from our current research investigation which includes a detailed overview of relevant literature written over the last few decades and on-going fieldwork in Taranaki, West Coast and Otago/Southland. Key issues we have identified include, community-based responses to social and economic challenges, the implications and the impact of government policy, including the Provincial Growth Fund, population-based funding and Just Transitions. Particular challenges in the rural and small town space include issues related path dependence, affordability of housing, service and employment challenges. The role of local agencies and community / iwi groups is particularly important in this context as agents of local change. The potential of papakāinga housing in rural areas to address rural housing and rural development is an additional theme which we are investigating.

REDISCOVERING THE REGIONS: A NEW ERA OF REGIONAL POLICY INTERVENTION IN NEW ZEALAND

Etienne Nel, University of Otago, Aotearoa New Zealand & University of Johannesburg, South Africa

Sean Connelly, University of Otago, Aotearoa New Zealand

Regional policy is experiencing something of a revival in many parts of the world, associated with new understandings of place, localities, regions, global processes and broader economic forces and innovation. That said significant differences exist across the world which are anchored in unique economic geographies, institutional practise and political economies. Within this context New Zealand in line with its long-standing embrace of neo-liberal policy has recently initiated a new regional approach anchored in devolution to the regions, multi-sectoral support, working with the business community and limited state engagement. While the country is actively seeking local and foreign investment and appealing to market forces, and most regions can apply for central state support, regional approaches differ radically in terms of governance, project foci and strategy identification. This paper seeks to detail and analyse these new but differing developmental approaches to regional policy drawing on evolutionary economic geography thinking, regional resilience and determining political economics.

BUILDING BETTER HOMES, TOWNS AND CITIES – NATIONAL SCIENCE CHALLENGE: THE FUTURE STRATEGY

Ruth Berry, Building Better Homes Towns and Cities National Science Challenge, Aotearoa New Zealand

The Building Better Homes Towns and Cities: Ko ngā wā kaingā hei whakamahorahora National Science Challenge (BBHTC), has confirmed funding until July 2019 and is currently seeking funding for phase II from July 2019 to July 2024. BBHTC is one of eleven National Science Challenges which offer a unique opportunity to undertake multi-disciplined research focused on issues of national significance. Included in BBHTC is the opportunity to undertake a sustained research programme focusing on regional issues over an initial 7.5 years. The BBHTC Challenge is founded in a bicultural partnership and brings together multi-disciplinary, multi-organisational teams to seek solutions to intractable issues.

Phase I of the BBHTC Challenge acknowledged the importance of regional settlements in New Zealand and that thriving regional settlements should be attractive, prosperous, welcoming and liveable for a diverse population. Thriving regional settlements should offer appropriate and affordable housing, employment and amenities that allow people to participate in their communities, be productive and maximise their social, economic and cultural well-being. Regional settlements and small-town New Zealand continue to be an important focus for the Challenge with a core focus of Phase II being the Strategic Research Domain, “Thriving communities and regions | He Pā Harakeke”.

This presentation will address how the second funding period will build on and develop the research and findings of phase I to address the questions; how can we support regions and communities to adapt and thrive? And, how can towns, cities, communities, and the regions in which they are located, deliver functional, hospitable, productive and protective homes, kāinga and neighbourhoods”. The presentation will also discuss how we will transition from Phase I to Phase II of the Challenge, research priorities for Phase II and the investment process.

Urban Rural Connections

ALTERNATIVE PERSPECTIVES OF EVERYDAY SPACES: INTRODUCING A MULTIPERSPECTIVAL FRAMEWORK OF CITY-REGIONAL CHANGE

Kane Pham, University of Technology Sydney, Australia

City-regions are shaped by various actors, influencing change from the local through global. These actors share complementary and conflicting views and interpretations of city-regional development. These conflicts inevitably lead towards struggle over longstanding concerns over ‘right-to-the-city’, equity of development and sociospatial balancing. This paper, through a multiperspectival lens that incorporates findings from the field of border studies examines change in the Sydney Global City Region (SGCR).

As city-regions continue to proliferate and grow, their extension and expansion introduces internal conflicts, pertaining to overlapping strategic and statutory borders, external conflicts, pertaining to endogenous and exogenous development, and scalar conflicts, pertaining to the prioritisation of micro, meso and macro perspectives of city-regional change. Dependent on the context or strategic framing, these conflicts may be interchangeably shared when there is consensus between actors, or lead to antagonisms when interests diverge. Through the observation and analysis of strategies

shaping everyday spaces, this paper develops a multiperspectival framework of city-regional change developing an understanding from the positions of various actors (community, political, business), scales (micro, meso, macro) and typologies of borders (statutory and strategic). Through the development of a multiperspectival framework, this paper contributes to the development of analysing city-regional change through the case of the Sydney Global City Region.

WHAT'S THE DEAL FOR PERIPHERAL PLACES IN CITY-REGION DEVOLUTION IN ENGLAND?

Charlotte Jayne Hoole, University of Sheffield, United Kingdom

This research investigates the structures, processes and practices that underlie a new governance and policy context in England since 2010 via in-depth, semi-structured interviews with local leaders. It looks at this through the lens of a 'mid-sized' city, bringing an alternative perspective to debates about urban and economic growth policy that have long been dominated by big city-centrism and agglomeration economics. By doing so, it aligns with a contemporary narrative that currently surrounds supposedly new urban divisions in England and 'the towns the economy forgot', influenced by the EU Referendum in 2016 that saw majority leave votes in urban peripheries in contrast to the big cities. This exposed a critical need to address the rising inequality between the urban elite and 'the rest' and harness the potential of 'mid-sized' cities for boosting national growth and tackling the big challenges that lie ahead post-Brexit. It also speaks to a wider international debate in relation to the instability and uncertainty that currently surrounds Western politics more broadly following, for example, the economic crash of 2008 and a rise in polarised politics across Europe, the US and beyond.

This research adds knowledge to theories on place and governance and has practical relevance for policymakers and place leaders navigating, making arrangements, and suggesting ways forward for shaping national devolution agendas and the scope for local leadership empowerment.

"VILLAGES OF THE CITY": RESHAPING RURALITY AND RURAL-URBAN RELATIONSHIP IN POST-PRODUCTIVIST PEARL RIVER DELTA, CHINA

Shenjing He, The University of Hong Kong, China

Yuting Liu, South China University of Technology, China

Located in one of the most developed and highly urbanized regions in China, villages in the Pearl River Delta (PRD), especially those at the rural-urban interface, are entering a post-productivist era, in which the primary emphasis on traditional agricultural production is gradually replaced by demands for amenities, ecosystem services and preservation of cultural landscapes. Taking advantage of geographical proximity and enhanced connectivity, these villages position themselves as the backyards or gardens of large cities to seize the opportunities of village revitalization and economic development, under the support of city governments. With a large volume of urban consumers, mainly the middle class, thronging into these villages, significant changes are occurring and fundamentally reshaping rurality and rural-urban relationship in the region. It is crucial to understand these changes at the conjunction of rapid urbanization and the recent "beautiful countryside" movement. In this research, I coin the term "villages of the city (VoC)" to denote these villages' close proximity and dependency to the city, in both geographical and socioeconomic terms. Different from those well-documented "villages in the city" (ViC), which were passively incorporated into the city during rapid urbanization and remain dissonant with the urban society physically and culturally, VoC are actively integrating into the urban economy and attune to urban culture, which can be deemed as an emerging form of rural-urban integration. This research delves into three interrelated questions: 1) how village collectives and the city government work together to promote the "beautiful countryside" movement; 2) in which ways rurality has been (re)made in these villages in catering to

the cultural and leisure consumption preferences of the urban middle class; 3) what impacts have been brought to these villages in terms of spatial/physical transformation, cultural revitalization, and social inclusion/marginalization. Research findings are expected to renew our understanding of the changing rurality and rural-urban relationship under the concussion of modernization and commercialization, and enrich the literature on post-productivism and rural gentrification.

THE CHALLENGES POSED BY UN-HABITAT'S RURAL-URBAN LINKAGES IN A SUSTAINABILITY TRANSITION AGENDA: THE CASE OF THE CHRISTCHURCH, NEW ZEALAND REBUILD

Sahar Zavareh, University of Munich, Germany

Gordon Winder, University of Munich, Germany

By focusing on rural-urban linkages and flows in its policy and project initiatives, UN-Habitat has set new priorities for economic geographers. While the UN-Habitat's agenda calls for regional planning and economic modelling, it also challenges economic geographers by prioritizing transition pathways and projects rather than regions. Among other things, this will involve: mapping particular spatial flows, linkages and partnerships among urban, peri-urban and rural areas, in ways that make sense of the envisaged transitions; identifying globalization processes that assist or cut across the desired actions; relating transitions to neoliberal and other policy practices and constraints; and conceptualizing new terms within economic geography, most notably 'resilience'. This paper reports recent research on the re-planning and rebuilding of Christchurch, New Zealand following the devastating earthquakes of 2010-2011. Efforts to manage the rebuilding of the city using sustainability and resilience principles ran into local reactions, tele-connected with globalization processes, and became entangled in a net of practices, regulations and institutions set in place to facilitate other projects and agendas. The result has been a period marked by politically charged tensions as well as challenges for experts. As economic geographers advise and assess transition pathways for sustainable development, as in this case of rebuilding after disaster, they will need to demonstrate how the desired transformations are entangled in complicated and dynamic economic spaces.

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