

Agri-Food XV: Paper Abstracts

Author/Affiliation	Title and Abstract
<p>A1: Higgins, Vaughan School of Humanities, Communications and Social Sciences, Monash University, Jacqui Dibden, School of Geography and Environmental Science, Monash University and Chris Cocklin, Faculty of Science, Engineering and Information Technology, James Cook University</p>	<p>Market-Based Instruments and the neoliberal governing of land management in rural Australia Market-based instruments (MBIs) consist of a range of mechanisms to promote more sustainable environmental management, including ecotaxes, tradable permits, eco-labelling and certification, as well as quasi-market instruments, such as auctions for provision of services, e.g., biodiversity conservation or salinity mitigation. They are of increasing interest to Australian governments as a means of supplementing existing state and community-based approaches for enhancing the sustainability of farming. While MBIs are argued to provide more innovative and efficient environmental solutions than existing land management approaches, market strategies for achieving sustainability have been criticised by rural scholars as representing an accommodation to, and extension of, neoliberal rationalities of governing. This paper explores how MBIs in Australia enable the extension of neoliberal rationalities of governing into agri-environmental management. Through two case studies of MBI auction schemes in the state of Victoria, we examine the often subtle ways in which MBIs (re)produce neoliberal farmer subjectivities and practices. While accepting that MBIs can produce non-market environmental and personal benefits, and more ‘multifunctional’ land uses, we question the extent to which programmes appealing to individual benefit and dependent on individual actions are able to provide wider societal outcomes.</p>
<p>A2: Freckleton, Rebeka and Stewart Lockie Central Queensland University, Rockhampton</p>	<p>Market Based Instruments in NRM: landholders and biodiversity targeted programs in Central Queensland The use of market based instruments (MBIs) to address natural resource management issues in Australia has received growing attention over the past decade. The application of MBIs to NRM settings is based on the argument that these approaches offer the greatest flexibility to landholders and therefore generate the most cost effective environmental outcomes, at the same time continuing to provide incentives to further reduce environmental impacts. From this perspective, biodiversity loss is the direct result of market failure that can and should be addressed through the implementation of MBIs to change environmental behaviour. This paper presents preliminary findings of research conducted with around 30 landholders and other stakeholders who have been involved in projects using MBIs to conserve biodiversity in regional Queensland. This study found that the success of MBIs in biodiversity conservation remains subject to the extent to which landholders are able to remain financially viable and competitive in the global marketplace. Nonetheless, although it is too early to determine the long-term implications of interactions with such schemes, landholders attributed increased awareness of the environmental impacts of production to involvement with MBIs</p>
<p>A3: Carruthers, Genevieve Department of Primary Industries NSW and Tasmanian Institute of Agricultural Research, University of Tasmania</p>	<p>Playing with the big kids: how EMS provides an opportunity for agricultural smallholders to meet global expectations Increasing globalisation of food production, distribution and marketing is not only placing pressure on large businesses, but also on smaller players to demonstrate environmental responsibility. Numerous certification, auditing, and accreditation schemes now apply to agribusinesses. Most have not been designed with the smaller landholder in mind. There are major constraints in resources and knowledge for management tasks in small farming businesses. Therefore, any approach used to meet customer and stakeholder requirements must be flexible, risk-based, and provide management value back to the user. Recently, Australia has investigated the use of environmental management systems (EMS) as a means to address diverse requirements for agriculture – regulatory, business, social and environmental. This paper will examine the use of EMS and demonstrate the utility of an approach that allows multiple requirements to be addressed, while providing business value for the land manager. By utilising the same systematic approaches as the ‘big kids on the block’, EMSs provide small and micro-enterprise users with an opportunity to enter dialogue based on common understanding of management approaches, and an enhanced data set by which to demonstrate stewardship. The paper will also consider the needs of EMS users for enhanced education, extension and support in their use of EMS.</p>
<p>B1: Parbery, Peter and Roger Wilkinson Department of Primary</p>	<p>Portrait of a social landscape: Melbourne’s rural hinterland This paper will present a portrait of land ownership and use in Melbourne’s rural hinterland, and explore some implications for agriculture and natural resource management (NRM) of the region’s extreme social diversity and dynamism. This picture of the social</p>

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<p>Industries, Victoria</p>	<p>landscape was built up from land use, agricultural and demographic data, as well as from 50 qualitative interviews and a survey of 996 rural landholders. The key types of landholders distinguished include land speculators, non-farm businesses and several kinds of farmers and lifestyle residents. The relative prevalence of these types is examined in three distinct regions of Melbourne’s rural hinterland, whose contrasts highlight the important interactions between the biophysical and social elements of landscape, and their implications for agriculture and NRM. The increasing availability of such data on land use change—along with the potential for conflict or synergy between different land uses—raises questions about how such data should best be used to guide land use change.</p>
<p>B2: Houston, Peter Development Planning and Policy Unit, Agriculture, Food & Wine Division, Primary Industries and Resources South Australia</p>	<p>New ideas for Australian rural landscapes* Land use planning has potential to play a positive, indeed, pivotal role in efforts to move towards sustainable rural landscapes. However, with only a few exceptions, its role has been problematic and its performance disappointing. This reflects a long-standing failure to invest in development of planning policy and associated tools that are relevant to Australian rural landscapes and their needs. Aiding and abetting that gap has been a traditional preference in the rural sector for aspatial, free-market public policy. Despite this legacy, contemporary circumstances hold the seeds of change. Drought and water restrictions in the short term, anticipated climate change over the longer term, the prospect of spiralling energy costs, new demands from a reformed NRM sector and emerging questions about food security introduce layers of risk and uncertainty not previously encountered by Australian farmers. More importantly, these conditions seem likely to narrow the land and water options for agricultural production and force industries to co-exist and compete cheek-by-jowl for resources. Already there is evidence that questions of resource access and spatial policy for agriculture are coming to the fore, especially in the more environmentally favoured, but increasingly crowded, peri-urban regions. This paper briefly reviews these evolving circumstances before outlining some ideas for a reconfigured model of rural land use planning: one that addresses the need for competitiveness, uses market-based instruments to resolve the underlying problem of development expectations, and is relevant to the needs and circumstances of rural landscapes. (*with apologies to Hugh Stretton)</p>
<p>B3: Buxton, Michael School of Social Science and Planning, RMIT University</p>	<p>Fragmenting the landscape: institutional failure and the threats to agriculture in Melbourne’s peri-urban areas Melbourne’s peri-urban area consists of two zones, an inner zone including Melbourne’s greenbelt and its traditional green wedges and an outer zone of 13 rural municipalities extending in an arc from west to east. The inner zone, including the Port Phillip and Westernport region is the second highest producer of agricultural products in Victoria, and its agricultural output per hectare is four times the state average. Australia’s peri-urban regions comprise less than 3 per cent of the land used for agriculture, but account for at least 25 per cent of the gross value of agricultural production in the five mainland Australian states. The value of agricultural production in Melbourne’s outer peri-urban zone is increasing along with product diversity and high capital value agricultural investment. The agricultural importance of peri-urban regions is certain to increase with rising energy costs, climate change and because of locational advantages. However extensive land fragmentation and unplanned development is threatening future peri-urban agricultural production. The failure of governments to achieve institutional and policy integration is preventing cross-sectoral responses to increasing threats to productive landscapes. This paper will present recent research findings on sectoral trends and land use planning and institutional responses to emerging pressures on Melbourne’s inner and outer peri-urban areas. The paper will place these findings in the context of drivers of change and the need for integrated policies to maintain future options for food production in Australian peri-urban areas.</p>
<p>B4: Hickey, Deanne, Melissa Neave and Bill Pritchard School of Geosciences, University of Sydney</p>	<p>Identifying changes in rural land holdings: Processes of fragmentation and consolidation? Processes of farm consolidation and fragmentation are transforming agricultural land ownership patterns in rural Australia with vital implications for environmental management, the operation of agricultural systems and the social sustainability of rural communities. Consolidation occurs when owners of agricultural land increase their holdings, typically by purchasing neighbouring properties. Fragmentation refers to the processes by which agricultural lands are subdivided into smaller holdings. While both processes are transforming land usage and management, little or no data exist to quantify and assess these changes. This research provides an analytical approach to determine the extent and intensity of changes in rural land holdings. The use of spatial analysis tools has enabled the</p>

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	<p>application of a comprehensive methodology to quantify spatio-temporal changes in holding size and ownership, from which the occurrence of fragmentation or consolidation can be identified. Utilising spatial methodologies processes of fragmentation and consolidation can be examined at various scales and assessed in relation socio-economic and environmental influences.</p>
<p>B5: McKenzie, Fiona Department of Planning and Community Development, Government of Victoria</p>	<p>Part time communities – Understanding population mobility in rural areas In recent decades the phenomenon of rural residential or peri-urban population growth has received research attention. Less well-understood are the motivations and characteristics of those people who are only part time in their rural location. Increases in real wealth and mobility have allowed many to take advantage of both rural and metropolitan locations. The phenomenon of dual or multiple residence can no longer be characterised as simply a home base and a holiday home/weekender. For an increasing number of people it can be a necessity due to family and work requirements, a lifestyle choice, or a lifecycle process of moving from one location to another over time. The Victorian Government has undertaken a number of studies which aim to quantify and understand the broad topic of mobile populations. Findings from two surveys will be presented in this paper: the first undertaken in 2006 in Mansfield, an inland municipality north of Melbourne, and the second undertaken in 2008 in Queenscliffe, a coastal location south of Geelong. Both locations have more than half of their ratepayers living outside the municipality. These research projects provide an important insight into the locational choices and movement patterns of part time residents and the degree to which they connect with local rural communities. Those interested in rural landscapes, peri-urban development and social change will find this paper of particular interest.</p>
<p>B6: Beilin, Ruth Department of Resource Management and Geography, Melbourne School of Land and Environment, University of Melbourne, and Regina Lindborg and Cibele Queiroz, Department of Systems Ecology, Stockholm University, Sweden</p>	<p>Agricultural land abandonment and biodiversity: Cropping nature’s fields for culture and science This paper charts the beginning of a study on land abandonment and biodiversity focusing on the cultural and social-centric norms influencing the management and the meaning of land abandonment. We describe historically, geologically, ecologically and socially diverse landscapes across three continents. In the Australian cases, rural land abandonment after only 150 years of European agriculture is associated biophysically with salinity or erosion. It triggers a potential loss of place and identity. Trading water away from the land and deregulation of production regimes due to WTO imperatives may create the opportunity for regeneration of indigenous flora and integrated conservation and agricultural values. In Sweden land abandonment reflects entrenched agricultural landscapes of over 1000 years. Their landscape biodiversity is closely associated with agricultural field management. It too is considered unique and in need of preservation in the face of aging farmer populations and the realities of food imports making production regimes non-viable. Sustainability appears to be associated with maintaining landscape types strongly linked to local cultural identity and sense of place. In Portugal agricultural land abandonment in the north offers a chance for oak forest regeneration and associated biodiversity outcomes that may limit agricultural options. Aging populations and devolution of landscape governance focus attention on the importance of local scenarios for the sustainability of agriculture and conservation options. In all three cases we explore what this interplay of science and culture means to local communities; and using historical and cultural lens, examine the theoretical ecological and sociological platforms surrounding this discourse on land use change</p>
<p>C1: Arifin, Bustanul Department of Agricultural Economics and Social Sciences, College of Agriculture, the University of Lampung (UNILA), Indonesia</p>	<p>Biofuels development and its effects on food security in Indonesia This paper examines issues on biofuel development in Indonesia, focusing on recent policies for the development of biofuels market, and recent trends on biofuels production, especially after a sharp increase in the oil price. Impacts on food security and rural development are also addressed as the issues of fuels vs. food enter the public debates. Indonesia has launched biofuels development policies in response to a growing scarcity of fossil fuels and increasing world oil price. In recent years, production of biofuels in Indonesia was up-and-down as the biofuels market has not yet developed properly. Simple estimates show that biofuels development in Indonesia has no significant impacts on food security and rural development, although more rigorous estimates have to be conducted very soon. After the sharp increase of world oil price, the future for Indonesian biofuels development is really in question. The domestic production of biodiesel and bioethanol in Indonesia is threatened to decline considerably as the biofuels producers have to face limited access of palm oils and sugar and cassava due to price rises. Major challenges faced by biofuels development is on research and development on the trade-offs between food, fuels, forest and feeds.</p>

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<p>C2: Lockie, Stewart, David Carpenter and Rebeka Freckleton Central Queensland University, Rockhampton</p>	<p>Sustainability and the 2008 global food crisis: tradeoffs and synergies between exports and food security for resource poor communities</p> <p>This paper summarises the outcomes of a survey of upland rice farming households in Negros Occidental, the Philippines. The majority of these households live in extreme poverty with less than 40 cents gross income available per household member per day, limited savings, difficulty sourcing sufficient food for at least 2-4 months per year, and around half the rice crop kept for internal consumption. However, there were strong correlations between rice productivity, total rice production, rice sales, and the amount of rice kept for household consumption. In other words, a positive relationship was evident at the household level between the health of the subsistence economy and capacity to engage in the market economy. At the same time, nearly 60 percent of households had converted to organic production and implemented a range of practices that capitalise on the ecosystem services provided by agro-biodiversity while reducing costs and increasing access to higher value local and export markets. This paper explores the implications for resource poor communities of participating in globalised agrifood networks and the potentially contradictory outcomes for household well-being food security.</p>
<p>C3: Bandaralage, Jay Griffith Business School, Griffith University</p>	<p>Impact of rising global food prices and policy responses in South Asia</p> <p>The impact of rising food prices in the context of high oil prices raises challenges for both developed and developing countries, but these 'twin shocks' have a particularly sharp impact on developing countries with large numbers of people on or below the poverty line. The impact on South Asia, home to half the world's poor, is naturally of great interest. Despite being the second fastest growing region in the world over the last decade, South Asia is widely considered to be one of the most severely affected regions of the world from rising food prices. There have been sharp food price rises in Bangladesh, Pakistan, Nepal and Sri Lanka though price increases have been more muted in India. These price rises have threatened political stability with street protests in Bangladesh, Pakistan and Sri Lanka. This paper presents a critical survey of recent studies into these issues, and reviews evidence of the seriousness of the problem in South Asia.</p>
<p>C4: Gertel, Jörg University of Leipzig, Germany</p>	<p>Realigning agri-food chains in Southern Europe and North Africa (1): Framing processes of deterritorialization</p> <p>The paper, based on fieldwork from 2004 to 2008, addresses the situation of agri-food production in France, Spain, and Morocco and investigates the consequences of realigning food provisioning chains alongside the extension of the European Union in 2004. Recently, farmers from Bouches-du-Rhône are exposed to massive ruptures in their traditional markets. Being an age old centre of horticultural production new intra-European competition with Southern Spain triggered the crises. The Spanish province of Almeria, for one, used the structural aids from the European Community in the form of subsidies to peripheral regions to construct plastic and glass houses on a large scale, covering more than 30.000 hectare. Combined with cheap labour, recruiting (illegal) immigrants from Morocco and Poland, comparative production cost in Holland and France are no longer competitive. Successful French farmers are only those, who are able to either specialise or pursue large scale production. Some, for example, seek to increase supply by extending their production areas beyond the boundaries of the Common European Market into Morocco, where they produce early tomatoes in the Sahara. Others invest in new member states of the European Union like Poland, where the agricultural subsidies are presently channelled to.</p>
<p>C5: Sippel, Sarah Ruth University of Leipzig, Germany</p>	<p>Realigning agri-food chains in Southern Europe and North Africa (2): Local livelihoods in the Souss-Region, Morocco</p> <p>Morocco has always been a favoured zone of counter seasonal vegetable production for the European (in particular the French) market, due to the advantageous climate during the winter months. Since the 1980s the main production regions have been relocated more and more to the south. While the region of El-Jadida (South of Casablanca) recorded high exports in the 1980s, the Souss region next to Agadir is the most important early vegetable production zone since the beginning of the 1990s, and yet unchallenged. Recently, a third process of dislocation of large (foreign) producers to the Western Sahara can be noted. The paper, which is based on ongoing fieldwork since 2006, aims to analyze actual dynamics and transformations in the Souss region. The paper focuses on the diverse repercussions and interdependences between the intensive export production and rural livelihoods. Three main aspects will be discussed: 1. The high demand on field workers resulted in immigration flows of unskilled and often poor laborers from all over Morocco. How are they integrated into the local population? 2. Only a minority of the local producers is able to take part in the demanding export market. How do those who cannot participate change their means of existence? 3. High capital investors dominate the production and exportation</p>

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	chain of the Souss region, often without respecting questions of sustainable resource management. Who are these powerful “players” and what are their strategies?
C6: Bjørkhaug, Hilde Centre for Rural Research, Norwegian University of Science and Technology, Trondheim, Norway	Agricultural restructuring in Norwegian family farming Why does family farming still exist? Why do many choose to farm when economic output fails, policy continuously changes and prospects for an improvement in the farming situation seem unlikely? Making a living is one side of it, maintaining traditions and values another. Structural perspectives have dominated traditional analysis of family farming. Policy settings and economic conditions are two important factors of the Norwegian farming reality. Other factors are those embedded in norms and traditions that family farming as an institution preserves and continues to pursue. This paper adds an actor sensitive perspective to the classical questions of the sociology of agriculture when it asks; how people in farming, who hold a diversity of backgrounds and engage in a variety of modes of production, challenge or adapt differently to new societal expectations of a social, environmental and economically sustainable agriculture.
E1: Dibden, Jacqui School of Geography and Environmental Science, Monash University and Chris Cocklin , Faculty of Science, Engineering and Information Technology, James Cook University	Contested domains, alternative futures: the struggle for GM-free zones in Australia Conflicts over rural land have intensified with the introduction of agricultural biotechnology. The decisions of farmers to adopt or reject genetically modified (GM) crops have largely mirrored patterns of bifurcation between productivist and multifunctional land uses, but with the significant difference that adoption of GM technology is potentially irreversible and may foreclose alternative futures. One proposal for maintaining the integrity of non-GM crop production has been ‘GM-free zones’ – areas within which GM-crop production would be prohibited. Exclusion zones have been proposed either for parts of states (e.g., Kangaroo Island in South Australia) or for whole states, in the case of Tasmania and Western Australia. Under existing regulations, states are allowed to make such decisions for ‘marketing purposes’, e.g., to protect their ‘clean and green’ image. With the recent overturning of the GM-canola moratorium in Victoria, anti-GM activists have launched a campaign to create GM-free zones in local government areas as a mark of resistance. It is clear that choices about biotechnology will play a role in shaping the future of rural places, resulting in increased spatial differentiation and potentially increasing social tensions between GM and non-GM producers and within rural communities.
E2: Cary, John Victoria University Melbourne and Anna Roberts , Department of Primary Industries, Victoria	Sustainable farms for sustainable catchments and landscapes: The vexed place of Environmental Management Systems There has been a growing interest in the potential for environmental management systems (EMSs) to provide a mechanism for establishing sustainable production systems. As food consumers became better informed about the environment, ‘logic’ suggested that the assertion of ‘clean and green’ production needed to be backed up by evidence provided by an EMS. However, most farmers consider EMS, particularly accreditation to the ISO 14001 standard, as too onerous and too costly relative to any benefits derived. In this paper findings are reported from a recent project designed to encourage more sustainable farms through voluntary adoption of industry-based EMS. The rationale for the project was that the stimulation of voluntary adoption of industry-based EMSs at the farm level would lead to more sustainable catchments and ecosystems with attendant private and public benefits, providing low cost natural resource management benefits for catchments. For continued government investment to be warranted to support adoption of EMS, there need to be sufficiently large public benefits.
E3: Brunton, Virginia NSW Dept Primary Industries, and University of Sydney	An environmental history and potential future of sustainable agriculture in the Sydney Basin Peri-urban farming in the Sydney Basin is a complex landscape, with a diversity of crops, soils, people, governance and conflicts. How did it become so and what is its future? This presentation is the early stages of research that examines the environmental history of farming in the Sydney Basin and what the environmental history has to offer the continued development of and planning for sustainable agriculture. Assuming that farmers will continue to be recent immigrants, that regulations will increasingly be more restrictive and the climate more variable, can the past provide insights and a wider, more holistic perspective in planning for sustainable peri-urban agriculture in an expanding Sydney? This research will draw on evidence found in soil to create a narrative from the soils’ perspective. This narrative will describe the complex relationships between the people, the climate, the law and the land that evolved and became the intensive horticulture that is today’s farming. By following a series of ‘typical’ farms in Sydney, tracking the farming history through scientific analysis of soil cores as evidence, historical records, interviews with current and recent past farmers, this research will analyse

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	<p>the environmental impacts, attitudes and policy interventions in relation to the expansion and intensification of farming. All farmers after the indigenous inhabitants were migrant farmers – what were/are the attitudes to farming and to the climate? How do farming practices and skills change from indigenous activities to intensive practices of today? How did government policy and law interact with farming? This research will synthesise the evidence of the past activities to provide insights into how sustainable agriculture might be supported in the future. It will, by using a variety of disciplinary methods, analyse the patterns and impacts of food production on the edge of an expanding city, and the social, political and cultural ideas and institutions and interactions that shaped and will continue to shape agriculture.</p>
<p>E4: Mason, David and Ian Knowd, Department of Primary Industries, NSW</p>	<p>Hawkesbury Harvest: From food security to food sovereignty. A hard road to hoe. In 2000 Hawkesbury Harvest emerged as a community-based response to three separate but interrelated forces:</p> <ul style="list-style-type: none"> • Global – the demand for food security, food access and food safety – 1992 ‘WHO Agenda 21’ • Regional - the demand for food supply, food quality and sustainability – 1998 ‘Strategic Plan for Sustainable Agriculture Sydney Region’ • Local – the demand for the retention of rural amenity in the Hawkesbury local government area – 1997 ‘Our City Our Future’ <p>This paper explores the nature of the factors inherent in each force, and their interaction, and how Hawkesbury Harvest has dealt with them over the past almost nine years. The paper then goes on to consider the challenges and options for Hawkesbury Harvest in the context of global warming and peak oil, factors that have recently become a feature of the Australian political landscape.</p>
<p>E5: Sinclair, Ian Principal Consultant, EDGE Land Planning</p>	<p>Planning For Australia’s food security The American Planning Association (2007) ‘Policy Guide on Community and Regional Food Planning’ p1) says: <i>“Food is a sustaining and enduring necessity. Yet among the basic essentials for life — air, water, shelter, and food — only food has been absent over the years as a focus of serious professional planning interest. This is a puzzling omission because, as a discipline, planning marks its distinctiveness by being comprehensive in scope and attentive to the temporal dimensions and spatial interconnections among important facets of community life.</i> This quote is very relevant to the Australian situation. There has been a lot of focus lately on the Murray-Darling Basin as Australia’s food bowl – this is not quite correct. The metropolitan fringe areas are a significant contributor of perishable vegetables, poultry, cut flowers, nurseries and turf. Yet this fact has gone unrecognised by Governments – both here and elsewhere in the world. The fringe of Metropolitan Sydney is one of the State’s food bowls. It produces \$1 billion of agricultural produce each year. It has a good climate and is close to the main population centre. However the landscape is made up of mostly rural residential development (78% of all uses are rural residential). This leads to many problems that need to be addressed in a multifaceted way to ensure that we have a sustainable future and a secure food supply. This session will draw upon the knowledge of the author about planning for rural and metro fringe areas in Australia and overseas. It will also draw upon analysis of the recently released 2006 Agricultural Census Data.</p>
<p>E6: Budge, Trevor La Trobe University, Bendigo</p>	<p>Food – The missing ingredient in Australia’s metropolitan planning strategies Over sixty percent of Australia’s population live in its five large metropolitan areas. The population growth rates of these metropolitan areas and the coordination of infrastructure investment have lead to increasing levels of state government action to manage and plan for growth in the form of large scale long term metropolitan land use strategies. Agriculture and the importance of food production have generally been acknowledged as a factor in the development of these strategies but they are largely peripheral issues. Retaining land because of its food production role is clouded by other assessed community imperatives such as scenic landscape, green belts and the support of lifestyle values. This paper examines the degree to which food production has played a role in the structure each of the nation’s metropolitan strategies. It proposes that the time has come to incorporate food production as a key element in the shape and form of land use planning for metropolitan areas. The paper suggests that the issue is now of sufficient significance that it should be recognised as a national land use planning imperative.</p>
<p>E7: Larsen, Kirsten University of Melbourne</p>	<p>A framework for food sensitive urban development Converging environmental challenges, including carbon and resource costs, are rapidly becoming real and urgent considerations in the</p>

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	<p>price of food. Urban and peri-urban food production can contribute to the sustainability and resilience of our food system in the face of these challenges. The need to maintain (and increase) food production in and around Australia’s urban areas is often perceived as being in conflict with other goals such as housing affordability, urban in-fill, biodiversity preservation, reduced water consumption etc. Similarly land that is currently inside the urban growth boundary but not yet developed is considered ‘lost’ to food production. Drawing upon the work of the Victorian Eco-Innovation Lab, this paper will lay out a framework for thinking about ‘food sensitive urban development’. This will be outlined as a new approach to urban design, policy and planning that transcends these dichotomies and places integrated food production and consumption at the centre of urban systems. This will focus on two major themes:</p> <ul style="list-style-type: none"> - Synergy: distributed food systems as a lens for sustainable urban water, energy, waste and transport, and as the basis of local jobs, economic value, community interaction and health; and - The Edge Effect: design to maximise the value of proximity and resource interchange (water, nutrients and energy) to increase food affordability and the viability of agricultural producers.
<p>F1: Smith, Kiah School of Social Sciences, University of Queensland</p>	<p>When two worlds collide: Collaborating with NGOs in agri-food field research Multi-stakeholder ethical trading initiatives represent the latest development in the creation of private, voluntary codes of conduct shaping agri-food supply networks. However, while ethical trade is commonly described in terms of its benefits for people in developing countries, it has also been criticised for a lack of grassroots stakeholder participation, despite the involvement of non-government organizations at the local-level. This paradox informed the research design for my own study into gender and ethical trade in Kenyan smallholder French bean production. In order to conduct multi-method research with women smallholder farmers, I chose to collaborate with local non-governmental partners. Drawing from research conducted in July-December 2007, this paper explores some of the advantages and disadvantages I experienced in the field in relation to working alongside two differently situated NGOs. Tensions arose largely from trying to balance theory-driven methodological concerns (underpinning the PhD) with the need for immediate, practical outcomes for local organisations and research participants. Despite these challenges, I argue that it is crucial for agri-food researchers to work with diverse partners if we wish to fully engage with the task of giving voice to producers who are disadvantaged in global agri-food networks.</p>
<p>F2: Brunton, Virginia and Michelle Smith NSW Dept Primary Industries, Tocal College, Gosford Horticulture Institute</p>	<p>Sự quan tâm coi trọng mối quan hệ” (care, respect & relationship) Women in partnership in Vietnam: Improving the Skills of Women in the Safe Production of Indigenous Vegetables in Vietnam This presentation aims to showcase the methodology that has been developed for the ACIAR funded project ‘Increasing the safe production, promotion and utilisation of indigenous vegetables by women in Vietnam and Australia’. Using Participatory Action Research (PAR) the project aims to involve women farmers directly in all stages of research and production skill development. This aim is achieved by the design of the project with women farmers at the centre, supported by collaborating institutions and research organisations particularly the Vietnamese Women’s Union and Centre for Agrarian Systems Research & Development (CASRAD). The project has commenced in 3 communes in Phu Tho Province, 60 km NW of Hanoi. The participatory action research approach has the women farmers electing to grow suitable vegetables from a self generated list, deciding what research they can do and what external researchers can do, planning, preparing and growing the crop. Technical support, market research and financial support are provided on a farmer demand driven basis. At all points the women farmers are in control of the project, making decisions and planning next stages. This paper discusses the difficulties encountered and the means used to overcome them, particularly the understanding and acceptance of the participatory approach by institutions. It is the Presenters view that this model can be adapted to suit various collaboration ensuring that decisions and project outcomes are driven by community needs.</p>
<p>F3: Glover, Jasmine School of Geosciences, University of Sydney</p>	<p>The challenge of a mixed methods approach of researching in India: Where to draw the line?</p>
<p>F4: Brown, Paula</p>	<p>Scales of participation and livelihood experiences in Marine Protected Areas in Vietnam</p>

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<p>School of Geosciences, University of Sydney</p>	<p>This presentation reflects on field experiences during 13 months' ethnographic field work in Vietnam involving natural resource management projects and small scale fisheries. This field work was implemented towards a PhD research entitled 'Marine Protected Area co-management as driver of livelihood change: experiences from Vietnam'. Two principal themes of participation and livelihoods change have been explored through qualitative ethnographic research around two different MPA project communities that operate at different co-management scales. Research was conducted through a preliminary 10 week research trip in early 2006, a main in-country research period from December 2006 to December 2007, and final field work survey in October 2008. This research has followed a multi-scale journey from livelihood communities at the grassroots level and project intervention with these communities, to project institutional connections through the commune, district and province, to national policy contexts and other central government influences. Overarching this are international influences from donor policy preferences that seek improved governance through participatory and collaborative approaches. Development fieldwork involves the negotiation of complex relations, interests, situations and logistics (Scott, Miller and Lloyd, 2006) and this lengthy research journey has broached, breached and/or transgressed all of the aforementioned complexities. Particular focus will be made on the hopes, fears and expectations of Western female graduate students negotiating the formative experiences of development research.</p>
<p>F5: Freckleton, Rebeka and Stewart Lockie Central Queensland University, Rockhampton</p>	<p>Ensuring research ethics are not 'lost in translation' In the current era of 'globalised research', studies are commonly undertaken abroad in developing countries that may not have research ethics guidelines in place. While social studies could be considered less 'risky' for participants than clinical drug trials for example, research in developing countries often involves vulnerable populations. Ensuring studies are undertaken in an ethically appropriate manner in this context requires careful planning and consideration. This paper shares the experiences of a study undertaken in the Philippines. The target communities were both isolated and comprised of extremely poor households with limited formal education or literacy (in either Filipino or English). Standard documentation, such as information sheets and consent forms, was of limited relevance to the vast majority of participants. Further, consultation with local researchers found that while considerable effort is taken when initiating research to ensure political support at all relevant levels, there are no specific ethics protocols for research that does not involve medical experimentation. This paper shares some of the experiences of the authors conducting this research, as well as some further considerations in undertaking research abroad in the future.</p>
<p>F6: Hill, M. Ann Department of Human Geography, Australian National University</p>	<p>Action research tools and community-based food economies in the Philippines This paper explores action research methodology and output in relation to community-based food initiatives in Mindanao, Philippines. I begin with some early reflections on what it means to do action research before moving specifically to an exploration of some of the methodological strategies an action researcher might employ to generate practical outputs. I use three community-based food illustrations from Mindanao: FAM-Dev, an integrated demonstration farm; the Matin-ao Rice Center an agricultural service provider and the Saint Nino allotment garden in Cagayan de Oro. In June 2008, a team from the ANU, Canberra went to the Philippines to make a documentary film about social enterprise development. The film making was one output as well as an on-going part of action research conducted by the ANU in partnership with NGO Unlad Kabayan, which began in 2003. Fam-Dev and the Matin-ao Rice Center are two social enterprises in the film. In contrast Saint Nino along with 7 other allotment gardens is a site of action research that is scheduled for 2009 and 2010 as part of my own doctoral research project. I conclude the paper with a research proposal and an exploration of the ways in which the research might build local partnerships and foster community-based food economies in the barangays of Cagayan de Oro.</p>
<p>F7: Lyons, Kristen, Samantha Neal, Griffith University and University of Queensland</p>	<p>Organic agriculture in Africa: research as praxis and re-thinking our role as social researcher There is a growing literature documenting the opportunities and challenges associated with the uptake of organic agriculture in Africa. This research demonstrates a range of social, economic and environmental benefits for farm families and communities. It also shows that organic farming is no development 'magic bullet', despite the hopes of the Bill Gates Foundation and others. Conversion to organics, for example, does not always rectify the inequitable power relations that structure domestic and international trade relations. Nor does organics address fundamental challenges facing African nations, including access to clean and safe water, health and medical facilities,</p>

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	<p>and primary and secondary education. Over the years we have been researching in the field of organics and development in Africa, we have come to increasingly question our role as social researchers; uneasy with the idea that it might be limited to documenting its outcomes, and the experiences for African farmers. In an attempt to make sense of our place in this milieu, in this paper we ask if there is a more active role for us as social researchers? We also question whether our role can – and should – bring benefits to the farmers we work with? In reflecting on these questions, we will draw on our experiences in playing with the boundaries of our roles as social researchers. This paper draws from our research and praxis at Katuulo, in southwest Uganda. Here we have worked with the Katuulo Organic Pineapple Society in establishing a health care centre. This organic farming community identified the need for this project; Katuulo is a remote rural village, isolated from health services. This paper critically evaluates the development of this health centre project, our relationship with this farming community, and our role in this project. Reflecting on our role as social researchers in this context, we will discuss the space that social researchers might occupy, particularly in a development context. We will also reflect on the significance of the communities we work with as social researchers in shaping our understandings of the role of social research and our praxis.</p>
<p>G1: MacKenzie, Ang, Hugh Campbell and Joanna Govern Centre for the Study of Agriculture, Food and Environment (CSAFE) University of Otago</p>	<p>Farming marine frontiers: contextualising new technologies within the aquaculture industry of Aotearoa New Zealand This paper examines the restructuring of the aquaculture industry in Aotearoa New Zealand. It reports on a project that interrogates practitioners about future strategies and engagements with genomic science, and whether these hold any promise for the future of the industry. Aquaculture is a valued export earner that premises itself on the relatively unpolluted waterways of New Zealand and the ‘safety’ of its product. In addition, aquaculture is increasingly upheld as the sustainable alternative to wild-caught seafood, and is enjoying growth in both domestic and export markets. Within the industry however there is divergence, as marine farmers continue to struggle with a restrictive regulatory environment and lack of innovative support from situated authorities. Recent technological developments at a scientific level have often failed to consider the contexts in which activities are proposed; and the unique challenges faced by marine farmers. This has resulted in isolated uptake of new technologies, and many questions from both scientists and the government as to why these purported opportunities have largely been dismissed by the aquaculture industry.</p>
<p>G2: Oro, Kohei National Agricultural Research Organization, Japan</p>	<p>Realities of a “farmer-driven” R&D system: An analysis of agricultural innovation processes in Australia Australia is one of the world’s front-runners in the national agricultural R&D system reforms. In the reforms, the R&D system has been changing from a supplier-driven, to a farmer-driven system; from one-way to two-way communications, and from linear to multi-actor innovation networks. Those reforms reflect present notions of an industrial innovation that is accomplished through regional dynamic collective learning processes. However, agricultural R&D has several different features from other industries: 1) each farm is too small to conduct research itself, 2) public R&D and extension organizations are main actors in the system, and 3) agriculture has high impacts on the environment, which means R&D is strongly related to the public good. These features cause high risks of market / government failure in agricultural R&D, and it is necessary to figure out a dynamic but fair R&D system. This paper critically examines the actual rural innovation processes in Australia, and tries to view realistic design of an agricultural innovation system in the knowledge-based economy.</p>
<p>G3: Scrinis, Gyorgy Globalism Research Centre, RMIT University</p>	<p>Technological forms and rationalities of agri-food production There are a range of new technologies that are shaping the practices, products, ecological relations, and socio-economic structures of agri-food production, particularly the new biotechnologies, nanotechnologies and information technologies. These new technologies are both extending and transforming the technological rationalities or logics of production in distinct ways, particularly with respect to ecological relations and the ways they shape our relationship to nature. I will outline a series of categories and concepts for identifying the dominant technological rationalities that have characterised different forms and paradigms of agri-food production. Firstly, the shift from reciprocal rationality, to instrumental rationality, to the reconstitutive rationality of the contemporary era. Second, the shift from multi-dimensionality, to one-dimensionality, to trans-dimensionality and interchangeability. Third, the shift from diversity, to uniformity, to distinctionlessness and re-differentiation. These technological rationalities will be illustrated primarily with examples from the</p>

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	technologies, practices and products of agricultural production, but also from the food manufacturing and processing.
G4: Kimber, Julie , University of Tasmania and CSIRO Food Futures Flagship, Frank Vanclay , University of Tasmania, and Peter Nichols , CSIRO Food Futures Flagship	Assessing the social consequences of emerging food technologies Long chain omega-3 polyunsaturated fatty acids (ω 3 LC-PUFA) such as docosahexaenoic acid (DHA) have beneficial effects against lifestyle diseases such as cardiovascular disease, asthma and diabetes. Normally, humans acquire these nutrients by consuming fish. The view of health authorities is that Australians consume significantly less than the desired quantity of LC omega-3 in their normal diet and supplementary sources are recommended. Due to declining fish stocks and increasing human population, marine-based sources of LC omega-3 may be unsustainable in the future. The CSIRO Food Futures Flagship, therefore, is developing land-based alternatives by genetically engineering oilseed plants such as canola to produce LC omega-3. Historically, the introduction of genetically modified crops has led to opposition from various community groups and therefore it is likely that it will be difficult to introduce this new food technology. Drawing on data from interviews and focus groups with a range of people from industry and the community, the social issues of the omega-3 project will be discussed. This research forms part of a PhD undertaken within a larger project that looks at the efficacy of Technology Assessment in the Australian social and political context.
H1: Ecker, Saan Human Ecology Program, Fenner School of Environment and Society, Australian National University	Valuing sustainable food and fibre: implications for integrated supply chain sustainability approaches The social life of food and fibre production and consumption is often overlooked in policy and programs aimed at shifting to more resource efficient and environmentally benign food and fibre systems. This study considers the social construction of sustainable production and consumption, within the context of supply chains commencing in the South West of Western Australia. The approach used considers the interconnection between production and consumption, transcending approaches which focus on the socio-economic circumstances of individual actors. Focusing on the stories of products from ten best practice farms, the project explored the tensions between 'sustainability' values found amongst supply chain actors for four major commodities (wool, wine, grain, horticulture and dairy). Drivers and barriers to social, environmental and economic sustainability were examined at the farming, manufacturing, warehousing, transportation, retail and consumer stages. Frameworks for whole of supply chain approaches to sustainability in food and fibre systems were explored by assessing how actors valued and integrated social, economic and environmental sustainability in the ten supply chain case studies. Theoretical concepts from systemic intervention and soft systems methodology were integrated in a situation-driven methodology based on adaptive theory, integrating data and information from semi-structured interviews, forums and surveys. Values identified included environmental sustainability, social equity, prosperity, animal welfare and regional sustainability. The transfer of sustainability values from producer to consumer was also considered and was related to personal values and motivations, relationships between supply chain actors, economic sustainability strategies and the role of certification and sustainability assurance systems. The findings demonstrate how supply chain actors can accept the existing dominant production to consumption systems, or they can respond by creating new systems which better incorporate their sustainability values.
H2: Payne, Tracy AgResearch Ltd, Hamilton, New Zealand	Impact of deer farming on rural landscape: views from Northland and the Te Anau Basin, New Zealand Farmers are constrained by regulations and values held by external influences. Deer farming is a relatively new industry in New Zealand agriculture. To date research on the impact of deer farming has focused on environmental impacts. Less is known about the social and community responses to landscape change resulting from deer farming. Deer farming in New Zealand is a complex issue as, under New Zealand legislation, farmed deer are still considered 'wild' animals. In this study, farmers, regulatory authorities and non-farming residents were interviewed to understand how they view the farming of deer. Deer farming was seen as blurring the category of 'wild', and inserting these 'wild animals' into the rural landscape is seen as a challenge by many. For some, humans are trying to domesticate an animal that is not suited to being farmed. Deer were seen as both a component of/in the rural landscape that is valued and a perceived threat to other physical components that are valued in the landscape. In learning to farm this complex animal, farmers have been required to question their thinking about what is important to them in the rural landscape, what challenges need to be addressed, and about their role as stewards of rural land.
H3: Benn, Karen	Rethinking government policy aimed at reducing the sugar industry's impact on the Great Barrier Reef

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James Cook University	The sugar industry is unlike any other agricultural industry in Australia. The unique structure and culture of this industry have been shaped by government policy and regulations that have encouraged and protected the industry in productivist goals. The more recent governmental policies aimed at sugarcane growers to reduce their impact on waterways and the Great Barrier Reef have been unsuccessful for a variety of reasons. One of these reasons can be attributed to policies that don't take into account the importance and influence of the monopsony of the mill within the industry structure and the growers' cultivation practices. Sugarcane growers and industry stakeholders were interviewed as part of this research to determine why growers adopt many of the recommended sustainable practices but not others, such as reduced fertiliser application rates. In order to reduce the run-off from sugarcane cultivation practices a quite different approach to governmental policy is proposed based on Ecological Modernisation Theory.
H4: Le Heron, Richard, Christina Stringer and Christine Tamásy University of Auckland	From 'cooperative' to 'corporate': Evolving dynamics of the Australian dairy industry since c2000 Historically Australia's dairy cooperatives have been major exporters of dairy produce to Asia, the Middle East and Europe. Paradoxically, in the contemporary globalising world dairy scene Australia is an especially attractive production and market environment for a new wave of foreign direct and equity investment in part because per capita dairy consumption has grown over the past decade at a rate above the world average and because of ongoing difficulties faced by Australian cooperatives in attaining processing economies. This paper examines recent developments in the Australian dairy industry as globalising multinational dairy companies position themselves for production and market share. The investigation draws upon recent insights from economic geography dealing with enterprise behaviour and organisation (e.g., Yeung, 2008; Taylor and Oinas, 2006) and earlier research on New Zealand's globalising dairy sector (Gray et al. 2007; Stringer et al. 2007). The study focuses specifically on the evolution of the main Australian cooperatives still remaining (Murray Goulburn in Victoria and Dairy Farmers in NSW), the nature of engagement of key dairy corporates in Australia (Parmalat, National Foods, Nestle, Fonterra) and the emergence of new geographical arrangements within Australia and within the globalising dairy production and trade networks.
I1: Paull, John Fenner School of Environment and Society, Australian National University; Visiting scholar at University of Oxford	The surprising history and geography of the first "Organic Farming" Association Readers of narratives of the history of organic farming in Australia will be familiar with such accounts beginning in the "1980s". In questing after the earliest organic farming society, and in pursuing the spread of the "organic" meme from its 1940 birth in Britain, it was therefore a surprise to uncover the Australian Organic Farming and Gardening Society (AOFGS) founded in October 1944. This resets the organic clock for Australia back by four decades. Here was an association, pre-dating the UK Soil Association by two years, formed half a world away from the birthplace of "organic". Organic farming principles were clearly articulated by this Society, perhaps as clearly articulated as they have ever been, and particularised for Australia. The Society was constrained from publishing their journal due to wartime constraints on paper. The first appearance of the Organic Farming Digest (OFD) was in April 1946. Thereafter, for nearly a decade, the Society regularly published a journal, with the last issue appearing in 1954. This paper explores the Society: its principles; its journals; its people; its interactions with key organic figures of the time including Ehrenfried Pfeiffer, Eve Balfour, Albert Howard, and Jerome Rodale; its Australian contributors from five states; its progress and ultimately its demise; and touches on how this history became lost.
I2: Grimes, Sandra Australian Institute for Social Research School of Social Sciences, University of Adelaide	The innovative wisdom of holistic organic systems: recent past, present (and future?) This talk presents insights into social changes of the last decade or so from the perspective of a sometime organic practitioner/ social researcher illustrating how the dynamics between organic and conventional farming systems are often relevant to understanding both the big and not so big picture. It is taken for granted that holistic organic systems = sustainability, although the future of these systems may be in question. Does the concept of 'food citizenship' hold out promise for a more socially sustainable agri-food future? The talk will flag some archival examples of 'innovative wisdom' which raise questions about organic research and development.
I3: Adamsen, Jannie Mia, Kristen Lyons and Hume Winzar, Griffith	Who is shopping for organics in Australian supermarkets? Results from a recent observational study Organic food is one of the fastest growing market segments in the food industry, with recorded growth rates between 10 and 30 percent in Australia over the last 5 years. The Australian retail market for organics is now valued at almost \$600 million, with major retailers

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<p>University</p>	<p>now stocking over 500 different organic products. In light of this sustained growth, organic food purchasing has received considerable research attention in recent years. This research has identified a number of significant trends: that women, for example, are more likely to purchase organics than men; and that higher levels of education are correlated with consumption of organics. Despite the insights of this research, it generates data related to consumer intentions rather than consumers' actual organic food purchasing patterns. As such, the usefulness of this body of knowledge for marketers and industry partners is questionable. This research aims to contribute to the knowledge about actual organic food purchasing in the Australian retail setting, by utilising covert observational research methods. These methods enables researchers to observe what is actually purchased and by whom. Rather than relying on assessments of what people intend to do, this research observes what people actually do. Findings of data collected over several months in Australian supermarket settings will be presented. This paper will provide an analysis of this data, as well as an analysis of the observational data collection method itself.</p>
<p>I4: Gracy, Pailly University of Agricultural Sciences Bangalore</p>	<p>Private-government synergy in organic supply chain and transition to global quality standards Organic farming is traditionally practiced in India which has now evolved into commercial production for exports by private companies who organize growers for organic products supply. The growing demand for organic products in the world market has prompted Indian government to take measures to promote organic farming. In 2001, the National Programme for Organic Production (NPOP) which aims at establishing national standards for organic products, based on IFOAM standards, was launched. A National Steering Committee (NSC) comprising Ministry of Commerce, Ministry of Agriculture, APEEDA, Spices Board, Coffee Board, Tea Board and various other Government and private organizations associated with the organic movement is monitoring the overall organic activities under NPOP. This has 12 accredited certifying agencies in the country. The state government has identified and supported Jaivik Krishik Society to create local market for organic produce in the state, which is a federation of organic farmers and farmers' groups. The government of India's policy on organic farming has been responsible for large scale new entrants to organic agriculture vis-a-vis the traditional organic production. This has helped in the evolution of different supply chain mechanisms and delivery modes leading to larger consumer base. This study compares the supply chain management of two retail formats namely Era Organic which is the only fully certified organic supply chain in Bangalore city with that of Nesara (Internal control mechanism for quality) in terms of producer's share in consumer rupee, consumer satisfaction and back end operations.</p>
<p>I5: Staley, Louise School of Social and Political Sciences, the University of Melbourne</p>	<p>Food movements and food producers: are they compatible? Slow Food, locavore, SOLE (sustainable, organic, local, ethical), fair trade: the list of food movements is burgeoning. All share, to a greater or lesser degree, a privileging of small scale and artisanal food over mass production and modern agriculture. This paper examines the tensions between the stated aims of these movements and the impact on food producers in low income countries. Drawing on an emerging literature from economics and development studies the paper engages with the complexity of choices made by consumers and advocates of the various ethical food movements. The first part of the paper grapples with definitional issues, particularly for the newer and less organised SOLE and locavore movements. This section seeks to unpack the differences and similarities in both approach and emphasis between the various food movements. The second section examines alternate approaches to evaluating the benefits and costs to food producers of consumers adopting the various food movement approaches as a determinant of lifestyle. The paper concludes by highlighting the trade-offs inherent in some of the food movement approaches.</p>
<p>I6: Cole, Nicki Department of Sociology, University of California, Santa Barbara, USA</p>	<p>Global capitalism, global knowledge: An examination of consumption and morality in the United States This research focuses on the final stage of the long, complicated commodity chain of coffee to analyze the knowledge that travels along, and is injected into coffee as a commodified product, on its path from tree to cup. In doing so I examine the intersection of global capitalism and popular knowledge in the United States in order to analyze the relationship between the knowledge encoded in commodities and popular ideas about race, culture, global geographical location, and the global economy held by middle and upper class Americans. Using a multifaceted socio-historical approach to the case of fair trade, organic, and socially responsible coffee, this research examines the knowledge forms that intersect goods associated with ethical capitalism and ethical consumption, and seeks to understand</p>

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	<p>the role these new knowledge forms play in the rearticulation of hegemonic domination of global capitalism. In order to track the full communicative flow of ideologies attached to the socially responsible coffee industry, a variety of sociological methods are employed, including discursive analysis, one on one interviews, ethnography, and participant observation. Discursive and hermeneutic analyses are employed to identify the ideological patterns and themes in the marketing and sale of socially responsible coffee products. This effort has revealed observable patterns in the content and structure of the discourse that surrounds socially responsible coffee. Racialized and culturally essentialized depictions of coffee farmers have been noted, discourse on morality and ethics is prevalent, as are descriptions of company practices positioned as socially responsible. Also notable is the celebration of consumers as ethical beings who through their purchasing choices produce positive change in the lives of coffee farmers and their communities. To understand the social and material significance of the knowledge attached to coffee, interviews with consumers and those who work in the industry are underway in four locations along the West Coast of the United States (Santa Barbara, California; Seattle, Washington; Portland, Oregon; and San Francisco, California). In this paper I address the ideological forms that shape industry and consumer popular knowledge, with a focus on popular understandings of global capitalism, ethical capitalism, and coffee farmers. I argue that these observable changes pivot on newly emergent mainstream ideas about the desire to inject morality into the global capitalist market for agricultural goods, but that ultimately these ideas do not produce radical change to the benefit of agricultural producers. Rather, the discourse of ethical capitalism facilitates the rearticulation of the dominant relations of production and consumption in everyday life in the United States.</p>
<p>J1: Pritchard, Bill and Phil McManus, University of Sydney and Neil Argent, University of New England</p>	<p>Uncoupling redux? How do Australian farm enterprises commercially engage with their adjacent regional economies? Mainstream rural policy analysis assumes that the fortunes of the Australian farm sector are closely aligned to those of rural regions; that when farm conditions are in upswing (or downswing), these impacts reverberate through local towns and communities. This assumption crucially underpins broader rural policy. For example, at the <i>Australia 2020 Summit</i> convened by the Rudd Government in early 2008, "The Future of Rural and Regional Australia" session was consumed almost entirely by discussion of farm income issues; conflating the issue of the rural economy with the fate of farmers alone. Surprisingly, however, we know little of this exact relationship. Almost twenty years ago, Richard Stayner and Ian Reeve from the University of New England proposed that the trend towards larger-scale productivist agriculture was 'uncoupling' the economic connections between farm and town. If this 'uncoupling thesis' is correct, it raises problematic questions about the framing of rural policy. This paper presents new data on this question. In 2007-08, a team of eight Australian researchers undertook financial surveys of farm enterprises in three regions of the Murray-Darling Basin (North New England [NSW], Lachlan [NSW], and East Wimmera [Vic]), as part of a larger inquiry into the changing roles and contributions of the farm sector in rural Australia. This paper provides the first public discussion of results from this survey.</p>
<p>J2: Almas, Reidar Centre for Rural Research, Norwegian University of Science and Technology, Trondheim, Norway and Lynda Cheshire, School of Social Sciences, University of Queensland</p>	<p>Changing relations between town and countryside: a comparative analysis of Norway and Australia In recent decades, rural de-agrarianisation and the growth and sprawl of cities, along with the geographically uneven impacts of neoliberalism and deregulation, have fundamentally changed rural and urban relations. The decline of rural industries and local population levels has served to increase the rural marginalisation vis-à-vis urban centres, which dominate in terms of population levels, policy importance and global connectedness. Rural people also generally have lower incomes, lower social status and less access to political power than their urban counterparts. Yet some rural areas are now thriving on resource industries and new 'rural consumption' services, such as tourism. With these changes, traditional power structures are being contested, new class relations are emerging and old and new meanings of 'floating ruralities' are contested. The purpose of this paper is to examine the effects of these changes upon contemporary rural-urban relations in Australia and Norway. Our paper will address the following questions:</p> <ul style="list-style-type: none"> • What evidence is there to suggest that rural-urban relations might be changing in countries such as Australia and Norway? • What similarities and differences exist between urban-rural relations in Norway and Australia? • To what extent does existing social science research assist in understanding contemporary relations between town and country?
<p>J3: Ingemann, Jan Holm</p>	<p>The lost conception of Glocalisation - Or how rurality tends to be locked-in in the space of place 'New economy' and 'globalisation' are in many contemporary conceptions seen as threats to rurality. Hence rural policies are often</p>

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<p>Dept. of Economics, Politics and Public Administration, Aalborg University, Denmark</p>	<p>directed to shield rural areas and encourage them to develop their economic basis as something unique based on locality in a somehow folklorist manner. Based on evolutionary experience from Denmark it is claimed that the success of the Danish trajectory from late 19th century was established through a fractal organisational pattern that was manifest in most of the 20th century and in which it was easy – and neither questioned nor contested – to establish a coupling which embedded rural societies in a global flow of both knowledge and matter. The fractal pattern thus ensured internal coordination and external connection. It is then revealed that the current organisational pattern is grid which has implied that place of space tends to be isolated from space of flows. Thus, a reinvention of the concept ‘glocalisation’ is missing.</p>
<p>J4: McKenzie, Fiona Wentworth Group of Concerned Scientists and School of Geosciences, University of Sydney</p>	<p>Agriculture and food: Where science meets politics Is it possible to achieve the seemingly unachievable? Will we ever find a way to increase agricultural productivity at the same time as protecting the natural assets that will underpin production into the future? In a world of climate change and conflict over control of dwindling natural resources, will we ever address agricultural production as an agro-ecosystem - part of the larger landscape processes underway? We have cause for optimism. Advances are being made in areas such as fossil fuel and agrochemical substitutes and bio-controls of current and emerging pests and pathogens. We are also realising that addressing economic and market failures will go a long way to redressing the degradation of our agro-ecosystems. The challenge is that, once we manage to design robust and effective solutions and get the science and economics right, what happens then? Without the required organisational capacity and government policies, a concept remains just that – an idea. It isn’t enough to tell politicians what to do, or to ask them to lead. Because the truth is, no matter how capable or how committed our political leaders are, they cannot deliver reforms without a practical plan and a strong community base of support. Politics itself is a science. Politicians need to be able to weave a narrative around their actions, to bring the collective consciousness with them. Sometimes we need to roll up our sleeves and help them figure out the way. This can be especially tricky for an issue like food and agriculture. Just as agriculture is not only about putting things in the ground and harvesting them, food is not merely a product to be bought and sold off the supermarket shelf. It is crucial to life and as such, deeply linked to our instincts to survive. Food and the spectre of food shortages evokes an emotional response. Politically, this makes it a high risk topic. This being so, the challenge then becomes capturing the imagination of the public as a whole. How do we translate environmental policy reform into a matter of self-interest, not only for the voter but, in the case of food and agriculture, for the interests within the sector who will ultimately be at the frontline of reform? This is something that the Wentworth Group of Concerned Scientists has grappled with since its inception in 2002. Whilst always remaining apolitical, the Group has sought to champion solutions within the political space. It has accepted that success must partly be measured by how one fare’s in the great test of ideas that is modern democracy. Agriculture is being faced by what may be its greatest challenge yet - increasing production and reducing resource degradation in a time of climate change and resource scarcity. Meeting this challenge requires finding solutions to biophysical problems. It also requires the ability to translate solutions into policy and policy into action, because at the end of the day, the outcomes we need are not just environmental or scientific, they must also come from the institutions that govern us.</p>
<p>J5: Campbell, Hugh and Julia Haggerty Centre for the Study of Agriculture, Food and Environment (CSAFE) University of Otago</p>	<p>Keeping the stress off the sheep: Animal bodies, intensification and feedbacks in New Zealand pastoralism An interesting area of inquiry into agriculture’s impact on the environment involves the extent to which societal values about appropriate relationships between agricultural production and environmental quality either parallel or contradict farmer subjectivities, particularly in the context of changing environmental governance regimes. We approach this issue with an interest in understanding how farmer subjectivity, the meanings of “good farming” and environmental outcomes are mediated by key ecological feedback loops which contribute to the construction -- and reproduction -- of notions of good farming practice. However the influence of such feedback loops operates in tension with other forces, such as the role of market audit systems as well as emergent public debates in New Zealand about animal welfare. Drawing on data from qualitative interviews with sheep farmers on the South Island, this paper highlights the peculiar and unexpected subjective shifts in the role of animal bodies as a feedback loop which signifies both good farming practice and key environmental outcomes. We argue that changing subjective constructions of good pastoral farming reveal important transitions in the</p>

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	<p>importance of traditional markers of general ‘health’ in a farming system. The health of animal bodies is becoming more than just a signifier of difference between an older and newer generational version of what comprises good farming practice. It is becoming a key indicator of the future potential of pastoral farmers to take the high road of best environmental practice via highly audited environmental standards of production demanded by elite consumer markets, or to remain in the intensifying trajectory of continuing to drive the sheep’s body to its maximum possible intensity of production</p>
<p>J6: Lewis, Nick University of Auckland</p>	<p>New Zealand’s Recognised Seasonal Employer Scheme and the reproduction of rural spaces in viti-horticultural regions New Zealand’s Recognised Seasonal Employer Scheme (RSE) seeks to secure the supply of seasonal labour for rural industries in New Zealand by importing temporary migrant labourers from targeted nations to work in targeted industries in targeted regions of New Zealand under tightly prescribed conditions. In its current operative form it is targeting labourers in so-called Kick Start States in the Pacific Islands and is creatively linked into New Zealand’s aid programme in the Pacific. In its conception and its implementation, the RSE is reconfiguring rural space. With the RSE lauded by the World Bank and Australia poised to implement a version of the scheme, it is timely to ask what this means. In this paper, I examine the ways in which understandings of the RSE are being framed in the media and other public for a. I argue that while the competition state is clearly in action here (as are key actors of neoliberalising globalisation) and a reserve army of Pasifika workers is being mobilised, what is being worked out are a set of geographically specific political projects with complex geographical imaginaries and multiple effects and affects. These imaginaries articulate existing forms of rural space to globalisation projects, the governance of global supply chains, rural idylls, racialised labour discourses, the changing politics and governmentalities of aid, development aspirations of Pacific nations and Pasifika families, changing mobility realities, and emerging transnational social spaces.</p>
<p>K1: Ilbery, Brian Countryside and Community Research Institute, University of Gloucestershire, UK</p>	<p>Ownership, tenancy and property rights: forgotten elements in the agricultural restructuring debate Geographers, economists and sociologists have long examined the key drivers of agricultural change. Yet, since the seminal work of Newby et al. thirty years ago, the significance and influence of ownership and changing property relations on agricultural restructuring have rarely been analysed. This is surprising because the relationships between landlord and tenant are becoming more complex and differentiated in space. Indeed, the rise in owner-occupation over the past fifty years or so, certainly in a UK context, has seen the very identity of a tenant farmer change, towards an owner-occupier who rents additional land. Thus there is an urgent need for more detailed research on the consequential geographies of farm property rights and the changing nature of landlord-tenant relationships. This paper first raises some conceptual issues surrounding property rights and landlord-tenant relationships. It then focuses specifically on the development of new farm tenancy agreements in the UK and shows how these have created their own consequential geographies. Attempts to reinvigorate the landlord-tenant relationship in the UK have come too late as tenancies have often become ‘add-ons’ to owner-occupied farms and ‘tenants’ have become second class citizens.</p>
<p>L1: Marshall, Nadine CSIRO, Sustainable Ecosystems</p>	<p>Why are primary producers reluctant to use innovations to enhance their resilience to climate change? The recent Intergovernmental Panel on Climate Change Fourth Assessment Report concluded that the agriculture sector in Australia is particularly vulnerable to climate changes. The amount of produce, quality of produce, reliability of production and the natural resource base on which agriculture depends are most likely to be impacted. This vulnerability requires high levels of adaptive responses and extraordinary government investment has been directed towards assisting with this challenge. In particular have been the improvements in seasonal forecasts to assist primary producers to optimise their land-use strategies. However, despite the potential productivity benefits of these new tools, primary producers are reluctant to adopt them. The aim of this study was to understand why not. One-hundred graziers in Queensland were surveyed for how climate-sensitive decisions are made, the likely resilience to climate variability (4 dimensions), the dependency on the grazing resource (9 dimensions), forecast perception and likely uptake. Uptake was correlated with all factors except perception of forecasts. Graziers do not see themselves as vulnerable to climate variability and this may make them vulnerable to more extreme climatic events. That is, non-technical considerations are more important influences on the uptake of forecast technology than technical ones.</p>

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<p>L2: Hogan, Anthony and Michael Hanslip, Social Science Program, Bureau of Rural Sciences</p>	<p>Climate risk and adaptation This paper presents the findings from a series of projects concerned with primary producer perceptions of and adaptation to climate change, climate variability. The material presented will cover qualitative work conducted in the Murray Darling Basin along with survey results of 4,000 randomly selected primary producers in Australia. The studies addresses three key questions: 1. How do stakeholders perceive drought and climate change? 2. What risk management strategies are agricultural industries implementing to adapt to climate risk? 3. What role could government play in assisting rural industries and communities with respect to drought and climate change adaptation?</p>
<p>L3: Gray, Ian Charles Sturt University, Geoffrey Lawrence, University of Queensland, and Peter Sinclair, Memorial University of Newfoundland</p>	<p>The sociology of climate change for regional Australia: Farmer capacity for change amid drivers for consensus and certainty in an uncertain environment Despite substantial changes, natural resource management in Australia is not moving the farming system towards sustainability. Climate change and related policy will put more pressure on farming systems and on populations that depend on Australia for food and fibre. The changes being mooted appear gradual but may be precipitous. While rising food prices and the further development of technology may appear to present opportunities for a smooth transition of production to a warmer, probably drier, climate in inland Australia, farm families will resist changing their farming system, and be pushed towards making difficult decisions. Adherence to productivism has arguably made our rural systems less adaptable and now threatens to leave many people with no alternative other than exit. There is danger that a research industry, with a strong interest in climate change, could define it as the issue, thereby missing the productivist values which lie behind our natural resource management problems. Importantly, the science that is pushing the policy to have farmers change their practices could become driven by the need to obtain consensus behind official accounts. The process is subject to power relationships, in the context of which scientific rationality can be defined and redefined. Such rationality alone will not be sufficient to guide us towards a sustainable future.</p>
<p>M1: Fleming, Aysha University of Tasmania</p>	<p>Community resistance to climate change: A case study of Tasmanian farmers Climate change is here, now, and ongoing changes and further impacts are still to come. The agricultural community in Tasmania needs to start preparation for climate change in order to create benefits and avoid costs. Yet resistance to taking up action to manage climate change is widespread because of continuing controversy and complexity of climate information. Confusion in how to act, as well as the uncertainty of the efficacy of required actions and the consequences of these actions, create resistance to changing behaviour. Knowledge of how farmers are currently taking up or resisting action in response to climate change is needed to better inform industry, decision-makers, researchers and the broader Australian community. Understanding the reasons behind resistance requires a shift from individualistic framings of resistance, to considerations of the wider connections to society and culture that affect all decisions. In order for climate change information to be more successfully accepted and acted on, new approaches to farmer learning and to understanding responses, particularly the social basis of resistance to changing behaviour, are necessary</p>
<p>M2: Rosin, Christopher and Mark Cooper, Centre for the Study of Food, Agriculture and Environment, University of Otago, Dunedin, New Zealand.</p>	<p>Where others fear to tread trade: Emissions trading and the regulation of agricultural greenhouse gases in New Zealand By ratifying the Kyoto Protocol, New Zealand committed to capping its greenhouse gas emissions at 1990 levels. Similar to other signatories, an emissions trading scheme (ETS) has been proposed as a fair and efficient means of allocating available 'carbon credits'. This action is largely justified as an appropriate contribution to efforts to reduce the threat of global warming. In practical terms, however, the regulation of greenhouse gases introduces new uncertainties to economic production. This is especially true in New Zealand's pastoral production systems where farmers face carbon liabilities due to methane (from ruminant animals) and nitrous oxide emissions. Using data from 29 interviews with sheep/beef and dairy farmers, this paper provides some initial insights to farmers' response to the proposed ETS. Commonly understood in terms of the additional costs associated with carbon liabilities, the ETS is generally viewed as a penalty assessed on the agriculture sector rather than a means to allocate a scarce resource. The legitimacy of the ETS is further challenged by the current exclusion of agriculture from similar schemes elsewhere. The paper concludes by locating farmer contestation of the ETS in the context of the new subjectivities introduced through the trading scheme.</p>

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<p>M3: Whittenbury, Kerri and Penny Davidson Institute for Land, Water and Society, Charles Sturt University and Cooperative Research Centre for Irrigation Futures</p>	<p>Influences on irrigators’ scheduling and application decisions: the importance of intuitive knowledge As a consequence of drought and global warming many irrigators in the Murray Darling Basin are entirely without irrigation water or are receiving substantially less water than previous allocations. It is therefore vital that irrigators make the most effective use of any available irrigation water. The conventional approach to encouraging water use efficiency among irrigators has been to promote the adoption of technology and tools designed to achieve water use efficiency. However, adoption rates of such technology are low. Whilst considerable research has been undertaken on adoption in general, relatively little is known about what influences irrigators decisions in their day-to-day irrigation practices. Drawing on research currently being undertaken for a project investigating irrigators’ decision-making, this paper outlines factors that influence irrigators in their everyday irrigation decisions and practices. These factors include the use of available tools and technology, broad and complex information such as detailed weather observations and forecasts, the types of irrigation systems available and structural influences such as the cost of electricity and diesel for powering irrigation pumps. An important influence is subjective knowledge. Irrigators report using experience, knowledge, observation and even ‘gut-feeling’ in deciding when to irrigate. Irrigators draw on data available from a variety of sources and relate this data to their own experiential knowledge when making decisions about irrigation scheduling. These findings will contribute to the development of a conceptual model that will inform researchers working in the development of irrigation technology so that they can target developments to both meet irrigators’ needs and make effective use of available irrigation water.</p>
<p>M4: Rickards, Lauren Associate Partner, RMC Consultants, Melbourne</p>	<p>From natural disaster to climate change: How redefining drought is affecting farming families One of the outcomes of the growing acceptance of climate change is the normalisation of drought. As seen in Australia’s National Drought Policy, drought has been redefined from natural disaster to risk management challenge. As a risk, drought is predicted to increase in frequency and severity under climate change. What effect is this new context having on farming families? Drawing on in-depth empirical research into farming families’ experiences of drought conducted for the Birchip Cropping Group’s ‘Critical Breaking Point?’ study, this paper outlines the two profound challenges that a redefinition of drought as climate change poses for farming families. First, climate change is a management challenge of unprecedented magnitude. Exacerbated by a perceived lack of useful information, many farmers are currently unable to make the changes needed to ‘drought-proof’ their farms, while efforts to do so may actually be increasing the vulnerability of their farms. Second, climate change represents a serious challenge to farming families’ identities. The episodic and natural character of drought allowed farming families to feel hope and be comforted by a sense of their limited responsibility for its cause. The ongoing and human-induced character of climate change replaces this with fear and recrimination. Combined with the government and public’s waning empathy for farming families in severe drought, this social element of climate change throws into question what it means to be farmers in Australia today</p>
<p>M5: Cooper, Mark Department of Geography, University of Wisconsin-Madison, and Research Assistant, Centre for the Study of Agriculture, Food and Environment, University of Otago</p>	<p>Governing agricultural greenhouse gas emissions in New Zealand – Science meets a market This paper uses the case of incipient agricultural greenhouse gas regulations in New Zealand to explore how particular scientific practices and findings shape the capacity and structure of agri-environmental governance. The inclusion of greenhouse gases emitted through agricultural production in the New Zealand Emissions Trading Scheme represents an ambitious use of a market-based instrument to regulate agricultural pollutants. The development of this policy instrument depends on the accurate assessment of the sources and sinks for greenhouse gas emissions as well as the translation of molecules of methane, nitrous oxide, and carbon dioxide into tradable emissions units. Based on interviews with scientists in Crown Research Institutes, this paper attends to the importance of scientific instruments, sites of inquiry, and the scalar framing of experimental design to examine the scientific practices that underlie these translations. The development of these robust methodologies and the accurate observation of agricultural greenhouse gas emissions constitutes a fundamental component in the development of a new environmental governance regime. Rather than describing the relationship between scientific claims and environmental policy merely as “co-production”, this paper identifies particular dependencies and conditionalities which accompany the use of market-based agri-environmental policy instruments.</p>
<p>M6: Alston, Margaret</p>	<p>Gender and climate change</p>

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<p>Monash University</p>	<p>Since the election of a new government and the establishment of a Climate Change ministry, this issue now dominates the public imagination. However Australia has been slow to catch up to the rest of the world in understanding and addressing the issue. Nonetheless the impact of climate change is being felt around the world and has led to significant research on the environmental and economic consequences. There has been less assessment of the social implications and even less on the gendered issues. This paper presents findings of an international study on gendered adaptations to climate change being conducted with the UN. The writer is working as an expert adviser on the project.</p>
<p>M7: Weller, Sally Centre for Strategic Economic Studies, Victoria University (Melbourne)</p>	<p>Drought, climate change and rural adjustment: Destinations of exiting farm families Despite years of rural adjustment, not enough is known about the pressures faced by farm households and farming communities, the catalysts of farm families' decisions to quit or the longer term consequences of those decisions. This presentation outlines the novel methodology being adopted in a new project that will examine rural adjustment and farm exits in Victoria. Supported by the Victorian State Government, the project will take a longitudinal approach and track the adjustment process for a sample of individuals, households and communities over a five year period. The presentation will explain the merits of viewing farm employment outcomes as career trajectories and introduce the advantages of longitudinal data analysis. The project aims deliver new insights that will help the State government to design innovative policies and interventions that will create the best possible outcomes for at-risk farm families while at the same time promoting the Government's rural adjustment objectives, which seek to establish economically, socially and environmentally sustainable farming structures and practices</p>
<p>N1: Edwards, Ferne Sustainable Cities Research Officer, Victorian Eco-Innovation Laboratory (VEIL), Australian Centre for Science, Innovation and Society (ACSIS)</p>	<p>Mapping meals in metropolis RMIT University introduced an elective in 2008 for industrial design and landscape architecture students called "Meals in Metropolis. This subject explored a variety of urban agriculture models with regards to sustainability. Much of the coursework involved mapping – mapping the distance food traveled, mapping food growing in neighbourhoods and ultimately, mapping the input and outputs of selected urban agriculture models whilst suggesting ways to incorporate sustainability into current practices. The VEIL Food Map – an online map of food production in Melbourne – was also launched during this course. Ecological mapping opens up many new ways of looking at our cities – particularly in terms of sustainable food production. Food is an excellent starting point to grasp the interconnections and systems that sustainability demands. By focusing on food one must also consider aspects such as water, soil quality, urban planning factors, and much more. Moreover, by shifting mapmaking - traditionally held in the hands of a powerful few - to students and the public there is also a powershift – the power to identify new points of interest, to personalize, to connect, and to reveal new sustainable food opportunities. I will discuss the outcomes of the student's mapping work, how this relates to current urban food production models, and close with how this work opens new terrains in sustainable urban food production research and opportunities.</p>
<p>N2: Hattersley, Libby and Jane Dixon National Centre for Epidemiology and Population Health, The Australian National University</p>	<p>Healthy competition or healthy communities? An ecological public health analysis of the 2008 Australian grocery inquiry Over 250 submissions were made to the 2008 Australian Competition and Consumer Commission grocery inquiry. Despite the narrow focus of the inquiry on retail pricing and competition, the submissions provide an unprecedented insight into the Australian food and grocery sector. This paper analyses the submissions from an ecological public health perspective, to reveal the ways in which the sector is being constructed and contested. A systematic search was conducted of all institutional submissions made to the inquiry during the period February-July 2008, using keywords reflecting concepts of interest from a public health ecology perspective. Submissions made by individuals were excluded. Public health and environmental considerations were not specifically mentioned in the terms of reference or Issues Paper released as part of the inquiry, and were addressed by a minority of submissions. The analysis highlighted that the two major supermarket chains continue to set the terms for the acceptance of food system operations in Australia, although the nature of their supply chain relationships, community footprints, and public health and environmental impacts were widely contested by other stakeholder submissions. This paper reveals a paradox between the service-to-community claims being made by Australian supermarkets and their human health and ecological externalities.</p>
<p>N3: Buchler, Sandra,</p>	<p>Safety, quality and the future of food: Consumer perspectives of traditional and modern food risks</p>

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<p>Kiah Smith and Geoffrey Lawrence School of Social Science, University of Queensland.</p>	<p>Over the past few decades, new forms of food production, distribution and consumption have resulted in rising consumer concern over the possible risks associated with food safety and quality. While some of these risks are not new, other risks are being redefined as society adapts to new food technologies, regulatory systems, and eating patterns. This study reports on a recent, Australia-wide, survey of consumer attitudes toward different types of food to examine how risk-perception differs across the population. First, we investigate attitudes and concerns towards food safety and quality, characterised by risks associated with chemicals, pesticides and food additives, as well as industry safeguards and issues of regulation. Second, we consider more traditional types of risks associated with food contamination, such as spoilage, the sale of food beyond the use-by-date, insanitary conditions, and corrupted or unclean food. We find that people view food safety issues differently and that this varies substantially by demographic characteristics. Our research suggests that, on the one hand, if the risk in question is traditional, avoidable, and requires specific knowledge, people of low SES and religious people tend to be more concerned. On the other hand, if the risk is ‘modern’, affects everyone equally, and the affects are not obvious or immediate, women, people with more education and older people tend to be more concerned. These findings support previous research which suggests that different groups within society understand and respond to risks in different ways. Third, we investigate consumer concern about the future of food safety, raising questions about risk, trust and knowledge underpinning the ‘cultural economy of food.’</p>
<p>N4: Isaacs, Bronwyn School of Geosciences, University of Sydney</p>	<p>Changing consumption in Chiang-Mai: Is there room for culture inside a (super)marketed Thailand? In recent decades food markets in non-western countries have seen an increased national presence of supermarket TNCs. In what he terms the “Supermarket Revolution” Reardon argues that since the 1990s supermarkets have been expanding market governance into the food systems of Asia and Latin America, bringing local markets and regional diets in line with global standardisation (Reardon <i>et al.</i> 2007). This paper suggests that not enough attention is being played to how such large global trends are playing out at the local level, among the millions of consumers who stand at the receiving end of such changes. In order to engage with the lives of local consumers this paper discusses recent ethnographically based interviews with consumers in Chiang Mai, Thailand. Following the Asian Economic Crisis, foreign supermarket chains have rapidly expanded their store presence in Thailand, so that the three largest chains now have more than 148 hypermarkets alone (Kanchoochat 2008). Using Thai narratives of “freedom”, “cleanliness” and “Thainess” this paper will explore how large European supermarkets have been able to sew themselves into the cultural fabric of everyday Chiang Mai social life. I will explore the possibility of local circumvention and resistance of global markets by considering Chiang Mai consumers’ parallel participation in the relational economies of local fresh markets.</p>
<p>N5: Wilkinson, Roger and Peter Parbery Department of Primary Industries, Victoria</p>	<p>The social authorising environment for Victorian agriculture What farming practices are acceptable to the Victorian public? Recent controversies over issues such as genetically modified crops, mulesing and live animal exports suggest that the social ‘authorising environment’ for Victorian agriculture may be changing. We have researched this issue for Victoria’s Department of Primary Industries. In this paper we present our recent research into Victorians’ attitudes to farming. There is substantial variation in the views of the Victorian public (measured by a survey of 1000 people) and among “experts” (shown by interviews with nine senior representatives of stakeholder organisations, including DPI itself). Divisions in public opinion cannot be reconciled without engagement of and reconciliation between not only lobby groups but also different government and disciplinary experts. One of our aims has been to encourage DPI to take a more reflexive view of its own role in controversies over agriculture.</p>
<p>N6: Murphy, Andrew Department of Commerce, Massey University (Auckland)</p>	<p>Farmers markets, retailing and consumption in New Zealand Farmers markets have long been popular sites of small retail trade and local cultural exchange in Europe, but have experienced recent rapid growth and diffusion in many parts of the world, including Australasia. This paper reports early results from a mixed-methods study of farmers markets in New Zealand. The study takes particular interest in the motives for participation of both stallholders and customers, and their perceptions of the functioning of markets as representational sites of local food production, retail and consumption. It finds that product quality is the key motivator, with price not a significant barrier to purchase or visits. The ‘retail environment’ has only a modest influence on customer choices, with stallholders valuing interaction with customers more than the reverse. Experiential</p>

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	<p>factors such as music performance and trying new products rate with moderate importance, and decline with greater experience and knowledge of markets and food. Finding local and seasonal foods and supporting the incomes of local producers also did not rate particularly highly, while seasonality and product appearance were not significant barriers to consumption.</p>
<p>N7: Richards, Carol, Geoffrey Lawrence, University of Queensland, and David Burch, Griffith University</p>	<p>The myth of trust: Supermarkets, risk and the re-manufacturing of food provenance Supermarkets are not only selling groceries to the public, but are also negotiating the negative publicity associated with escalating reports of risky foods. Risky foods, in this context, refer to those food products sold by supermarkets that derive from industrialised forms of production that are perceived by consumers to contain agrichemicals, compromise environmental sustainability, and/or overlook animal welfare issues. In many sectors of society, alternative food networks have grown in response to these concerns. A rise in the sales of organic food has been confirmed in developed countries, and localised projects such as community supported agriculture, farmers' markets and 'buy local' schemes respond to community concerns about the ethics, safety and provenance of food in late modernity. Supermarkets, are well aware of this trend away from industrially produced foods, and are responding in a number of ways that mirror alternative food networks. Their responses include the sourcing of local products, stocking organic and 'fair trade' goods, and by linking particular food items - such as milk and chicken - to the producer via photographs on the packaging. Likewise, in some supermarkets, the meat counter has been re-badged as the 'family butcher'. By examining the discourses inscribed in food packaging, advertising material and supermarkets' websites, we demonstrate how supermarkets are responding to 'manufactured uncertainty' associated with risk society through a campaign to 're-manufacture certainty', or, trust.</p>
<p>O1: Vanclay, Frank Tasmanian Institute of Agricultural Research, University of Tasmania, Wendy Russell, University of Wollongong, Julie Kimber, University of Tasmania, and Heather Aslin, Bureau of Rural Sciences</p>	<p>Technology assessment in social context We are developing a technology assessment (TA) framework for Australia. Unlike many OECD countries, Australia has never had a formal technology assessment process or agency. Controversies around technologies such as genetic modification and nuclear power have heightened concern about technological developments among interest groups and the general public. There have been calls for more accountability in R&D, technology policy and for the independence of public scientists. Recent debates have emphasised the importance of broad social and cultural concerns and perspectives. Learning from previous experience, those currently involved with emerging technologies such as nanotechnology are seeking to engage with communities and respond to societal concerns. We believe it is now timely to develop a new framework with which to assess emerging technologies. We have drawn on the insights and methods of TA as practiced in Europe, as well from Social Impact Assessment. Our aim is to go beyond consideration of social impacts as side-effects of technology, to develop an approach that considers the broad social consequences of technology and how these consequences are felt throughout society. We want an approach that is both critical in investigating the effects (including indirect impacts) of new technologies on different groups within society; but also optimistic in seeking to assess technologies in relation to visions for the future. The framework will be designed for flexible use for different purposes and by different actors. It will combine community engagement and social research that not only assess technologies, but give technology developers, policy makers and technology users a better understanding of one another and their visions for new technology. The framework will be tested on agricultural biotechnologies. The project is funded by a Discovery Grant from the Australian Research Council. More details are available on the project website http://www.utas.edu.au/ruralcommunities/TASC/</p>
<p>O2: "Team Biological Economies". Le Heron, Richard and Nick Lewis, University of Auckland, Mike Roche, Massey University, Hugh Campbell, University of Otago,</p>	<p>Performing supply chains as biological economies; connecting industry, policy and social science This paper draws on work of the New Zealand Social Sciences Biological Economies project and addresses three questions: What is gained by re-thinking supply chains as biological economies? How do we study biological economies? Does this thinking help to reposition economic geography in a politics of knowledge production conditioned by a nexus of influences such as climate change, food questions, and water concerns? The paper canvasses a range of issues including those around constructing biological economies as a category, biological economies as spaces of engagement, biological economies visioning in the context of food regime thinking, farm plans in theory and practice, contradictions in the landscape of dairy environment and dairy feed strategies, producing knowledge about producing different values, conventions theory and centring social science, understanding enactment, making markets through framing</p>

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<p>Eric Pawson, University of Canterbury, Mairi Jay, University of Waikato, Caroline Saunders, Lincoln University, Matt Henry.</p>	<p>and gaming, and the work of indicators</p>
<p>O3: Reid, John and Prencipe, Gianni He Whenua Whakatipu Research Project, Agriculture Research Group on Sustainability (ARGOS)</p>	<p>The biological economy of Ngai Tahu Maori Landowners – Hunter-gatherers and scientists identifying pathways and challenges to building Nohoanaga Kaika Prior to colonization Ngai Tahu Maori were primarily semi-nomadic hunter-gatherers indigenous to Te Waipounamu (the South Island of New Zealand). During the colonization process, however, Ngai Tahu Maori adopted European agricultural technologies and settled on Maori reservations as access to mahinga kai (wild food) gathering areas became limited. Despite this cultural adaptation the hunter gatherer traditions have continued along with the Ngai Tahu philosophy of land management. In 2005 He Whenua Whakatipu, an action research project, was established by Te Runanga o Ngai Tahu (TRONT) to research pathways for land development based on sustainable food production. A partnership was established between researchers and Case Study Groups of landowners dwelling in remnant Maori reservations to envision development strategies based upon indigenous philosophy, post-traditional Ngai Tahu farming practice, and contemporary science. This paper presents the development strategies envisioned, and learning experiences from implementing strategies through improved pastoral farming, intensive organic horticulture, ecological restoration, value-added processing, gardening, gathering and hunting. However it is concluded that unstable postcolonial social conditions, combined with commercial realities and climatic shocks, have constrained Case Study Group movement toward developing nohoanga kaika, or local sustainable biological economies.</p>
<p>O4: Le Heron, Richard, Nick Lewis and Erena Le Heron, University of Auckland</p>	<p>Positioning the Biological Economies project: some preliminary institutional landscaping The paper provides an overview of the institutional environment in which the Biological Economies project is set. The paper outlines first the institutional context in New Zealand in which the Biological Economies project was conceived and funded, then considers the project in relation to threads of inquiry and development of social science practice in the international arena and finally examines issues surrounding how to approach and narrate stories in a number of identified strategic sites in New Zealand</p>
<p>O5: Morris, Carolyn, University of Canterbury, and Joanna Govern, Ang, and Hugh Campbell, Centre for the Study of Agriculture, Food and Environment (CSAFE), University of Otago</p>	<p>Producer habitus and biopharm imaginaries This paper is based on three of the case studies in the Constructive Conversations biopharming project: plant biopharming (the seed industry), animal biopharming (the dairy industry) and marine biopharming (the mussels and salmon industries). It will explore the relationships between producer subjectivity (theorized in Bourdieuan sense as habitus), sectoral structure (field) and producer practice, and consider the implications of these subjectivities for the ways in which biopharm futures are imagined in each sector</p>
<p>P1: Almas, Reidar Centre for Rural Research, Norwegian University of Science and Technology, Trondheim, Norway, and</p>	<p>Private Equity takeovers in the Nordic food sector: Does corporate, cultural and political environment matter? The paper will deal with the inroads of private equity companies in the Nordic food sector. Private equity companies may be defined as financial groups established to buy up undervalued companies or companies with a promising future in order to restructure them. They take over companies “to realise shareholders values”, but as soon as they get control, shares are liquidated. Their goal is not to own companies for more than 3-5 years, in order to realise profit for their owners. A number of equity companies have been active in the food sector, taking over food processors, fast food and catering companies, as well as supermarket chains. The Nordic countries have had a</p>

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<p>David Burch, School of Science, Griffith University</p>	<p>food sector characterised by strong farmer owned cooperatives. Retail trade in the Nordic countries has been dominated by a limited number of large supermarket chains, one of them being cooperatively owned by the customers. A strong interventionist tradition of industrial and trade regulation and strong trade unions also characterise these countries. Questions asked are:</p> <ol style="list-style-type: none"> 1. How do Nordic labour laws and trade regulations delimit the freedom of equity acquisitions? 2. How does the strong cooperative presence in the food and retail sector influence equity takeover processes?
<p>P2: Burch, David Griffith University and Geoffrey Lawrence, University of Queensland</p>	<p>Financialisation and the food system: A preliminary analysis Numerous researchers have commented upon the recent trend by financial companies – private equity concerns, hedge funds, superannuation institutions, sovereign wealth funds and other financial entities – to commit increasing amounts of investment to the agri-food sector. The impacts of such ‘financialisation’ have been experienced at all points of the agri-food chain. Impacts have included alterations to patterns of ownership and control of farms, of food manufacturers and of retail outlets, as well the ownership and control of food and fibre commodities traded on world markets. What has been less obvious, however, is another process – one occurring, as it were, in the opposite direction. It is one in which actors in the agri-food supply chain increasingly come to behave like financial companies. A number of supermarkets have, for example, have combined with banks, insurance companies and finance houses in order to establish banking facilities, lines of credit, and car and house insurance. This paper undertakes a preliminary analysis of these latter developments and attempts to evaluate their current and future impacts.</p>
<p>P3: Maclurcan, Donnie University of Technology Sydney</p>	<p>Nanotechnology and the Global South: The challenges beyond GMOs In recent years, a debate has emerged about the role of nanotechnology in the context of developing countries. One school of thought presents an ‘instrumentalist’ argument: that nanotechnology can be a useful instrument to further ‘development’. The other school of thought presents a ‘contextualist’ argument: that nanotechnology contributes to the very context in which systemic inequities are compounded. The tension has diverted attention from the real issue at stake: a broad lack of consideration for developing country perspectives or in-depth scenarios. This is despite earlier research showing significant interest from developing country governments to enter global nanotechnology innovation. Such developments compound the need for a more inclusive understanding about nanotechnology and the challenges it raises. This paper reports on a 2004 qualitative study undertaken in Thailand and Australia. Thirty-two ‘experts’ from academic, private, non-government and government sectors were interviewed about their understandings and perspectives relating to nanotechnology and its impact in developing countries. The study included interviewees with expertise in science policy, ethics, law, social science and development and was supplemented by a survey of approximately 10 per cent of the Thai nanotechnology research community at the time. All data was analysed using NVivo™ software. With respect to nanotechnology’s societal challenges, the research presents equally high levels of concern between Thai and Australian experts that nanotechnology creates key imponderables and unique social implications, relating to health and environmental risks. More alarmingly, the responses suggest a reversing of the burden of proof from the onus resting with scientists to prove a technology is safe towards a burden of proof on the public to prove the potential dangers warrant precautionary action. On the whole, nanotechnology was viewed in a different ethical light to Genetically Modified Organisms (GMOs) and, aside from facilitating patents with a broader scope, was not seen as raising any new legal implications in near term. However, there was concern for a lack of meaningful social engagement based upon generally poor awareness and understanding about what nanotechnology actually is. Whilst this was not novel, and most anticipated a relatively smooth transition to a ‘nanotechnology-society’ with strong levels of public acceptance, others felt that nanotechnology’s subtle introduction, amongst other things, could lead to a GMO-style backlash. This research is believed to be the world’s first formal, qualitative study to engage developing country perspectives around nanotechnology’s developing country impact. The research highlights the relevancy of some debates to the developing country setting and establishes both a platform as well as a broad scope for the areas in which greater research may be useful.</p>
<p>P4: Marie-Vivien, Delphine</p>	<p>Geographical Indications: from French terroir to India's identity Geographical indications (GIs) serve to identify a good as originated in a territory where a given quality, reputation or other characteristic</p>

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<p>CIRAD, UMR Innovation, Montpellier, France (visiting researcher at National Law School of India University, Bangalore, India) and Claude Garcia, CIRAD, UR Forest Resources and Public Policies, Montpellier, France, visiting researcher at French Institute of Pondicherry, India.</p>	<p>of the good is essentially attributable to its geographical origin. GIs were homogenised at the international level through the WTO TRIPS Agreement. India, with an ancient history and a high diversity of landscapes, products, and communities, stands much to gain from implementing GIs. The Indian GI Act for the protection of the geographical indications of goods entered into force in 2003, and as for July 2008 there are already more than 120 GI applications filed. This shows the resolve of the country to protect its national identity through GIs protection that allow fighting against fraud, and increasing benefits to the local producers and thus preserve the rich heritage of India, whether in agriculture, handicraft and manufactured goods. Localised agricultural goods often refer to traditional local plant varieties with the objective of protecting the generic resources. GIs in Europe pursue a four-fold objective: fraud prevention, protection of the producer, rural development and conservation of biodiversity. The way GIs are implemented also creates differences. Most GIs in Europe originate from the producers themselves. In India, the Government and its agencies take upon themselves to represent the interests of the producers and hence most of the GIs are the initiative of State or Commodity Boards such as the Spice Board. Through a comparative analysis of French/European and Indian GI law and examples drawn from products originating from biodiversity hotspots in India, we will explore the impacts of those differences at the local level, in terms of the social and ecological dynamics created.</p>
<p>P5: Bryceson, Kim University of Queensland, Gatton Campus</p>	<p>Using Bayesian Belief Networks to evaluate a ‘Walking the Chain’ capability developing exercise Agri-food chains are complex systems involving multiple multifaceted firms usually working together within specific industry sectors (e.g. grains, beef, wool, dairy) to satisfy an increasingly globalised market demand for high value food products. The groupings of companies involved in an agri-food chain undertake activities that add value to a raw commodity product through the production, manufacturing and distribution stages of the chain. This paper describes a knowledge developing exercise called “Walking the Chain” undertaken in two very different agri-food where members of a component in the chain physically follow the raw product through the various stages of processing and manufacture to the retail sector. In so doing the idea is that new knowledge is acquired about the chain which the participants can use to better plan their own part of the chain. The first chain investigated was a specialist dairy chain in the UK where a local cheese sells into Tesco supermarket, and where all the participants are highly sophisticated. The second chain investigated was the Australian bush tomato chain which is a more simple chain ending up in Coles and with varying degrees of business sophistication of participants involved. Bayesian Belief models of the two chains were developed before and after the exercise: which will be discussed as a means of evaluating the learning/knowledge development that occurred during the exercise.</p>
<p>P6: Arifin, Bustanul and Zakaria Abbas Department of Agricultural Economics and Social Sciences, College of Agriculture, the University of Lampung (UNILA), Indonesia</p>	<p>Efficiency analysis of maize production and marketing in East Lampung, Indonesia The objectives of this research are: (1) to analyse the technical efficiency and economic efficiency of maize farm production, (2) to identify factors affecting such production efficiency of maize production; and (3) to analyse market structure and behaviour of maize marketing in East Lampung, Indonesia. Field observation and data collection were conducted from August-September 2007, including to interview farmers in maize production centres of Bandar Sribawono and Jabung Subdistricts of East Lampung Districts. These study sites were purposively chosen as the study is part of broader action-research program on developing ABGC (academics, business, government, and civil society) partnership in linking farmers to market. A model of frontier production function was employed to analyse the technical efficiency and economic efficiency of maize farm production. Econometric tests were also conducted to analyse factors affecting such production efficiency, market structures, and behaviour of maize markets in the region. The results show that the production process of maize farm production in East Lampung is not technically nor economically efficient, causing slow progress of rural development in the region. The technical efficiency of maize production is significantly affected by farmers’ education, ethnicity, non-farm farm employment, and tenurial status; while economic efficiency is significantly determined by farm holding size and non-farm employment. Marketing system of maize in East Lampung is farm from efficient, where farmers have a very low bargaining position; and marketing margins are not equally distributed among economic actors in the system. The study recommends to improve the</p>

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	<p>institutional capacity of farmers' groups, empower farmers' cooperatives, and to closely monitor the post-harvest and marketing process of maize to broader markets in the region. In additions, the study clearly lay-out the steps for technical assistance and extension actions to disseminate good agricultural practices and know-how technology and to improve the roles of association of farmers groups to strengthen the maize economy in Indonesia</p>
<p>Q1: Maye, Damian and Brian Ilbery Countryside and Community Research Institute, University of Gloucestershire, UK</p>	<p>Risk, farmer knowledges and disease management This paper reports on part of a Rural Economy and Land Use (RELU) project called 'Growing risk'. The project examines the potential impacts of plant diseases on land use and the UK rural economy and this paper reviews two broad areas of work within the social sciences: first, risk, risk perception and risk management; and secondly, crop/animal diseases and farmers' knowledge of disease and other risks. Unpacking what is meant by the term 'risk', the paper shows how recent writings on risk can helpfully inform current attempts to study disease threats, especially within the fields of human geography and rural studies. A key argument running through the paper is the important role of emotions and non-rational (or 'irrational') aspects of decision making when dealing with risk management issues. While the role of emotions and moral values (referred to here as 'risk as feelings') has been noted in rural studies and agri-food studies, most work has tended to focus on the popular 'risk society' thesis rather than on some of the important and arguably more instructive work by risk analysts and psychologists. The paper attempts to inform on-going academic and policy debates on how best to limit, control and manage disease threats in the rural and land economy.</p>
<p>Q2: Carr, Anna Bureau of Rural Sciences</p>	<p>Communicating biosecurity risk in peri-urban Australia Biosecurity is science dominated, relevant to a wide range of government and industry policies and subject to uncertainty. It has multiple and conflicting objectives sought by many and diverse stakeholders. In short it has been firmly constructed as a risk requiring tight management and effective communication. Biosecurity within peri-urban Australia has attracted special attention given the geographical and economic importance of this zone to agriculture and the existence of multiple, conflicting (land) values and practices. This paper characterises peri-urban landholders, examines pests and diseases of concern, establishes factors affecting biosecurity risk and explores the question of whether peri-urban landholders pose a biosecurity risk to Australian agriculture. It then reviews risk perception and communication literature and illustrates that field's evolution before turning attention to where biosecurity risk communication might be heading. It concludes with a discussion of some of the implications for the collective management and communication of biosecurity risk in peri-urban Australia.</p>
<p>R1: Lewis, Nick, University of Auckland</p>	<p>Session for non-presenters to discuss their research</p>
<p>S1: Pritchard, Bill and Michelle Godwin School of Geosciences, University of Sydney and Gracy Pailly, University of Agricultural Sciences Bangalore, India</p>	<p>Is India different? Smallholders and supermarket procurement in the Bangalore region India is on the cusp of a 'supermarket revolution', with rapid growth in the number of supermarket outlets targeting middle-class urban populations. The city of Bangalore is an epicentre of this phenomenon. This paper reports on the ways that key supermarket chains have sought to enrol growers in fruit and vegetable procurement systems. Based on extensive interviews with farmer-suppliers in three regions of Karnataka State (of which Bangalore is the capital), the paper suggests that in this early stage of supermarket expansion, at least, prospective trends seem to indicate a quite different set of social and economic outcomes than observed in other emerging markets, such as Latin America and South East Asia. At this stage of evolution, smallholder involvement remains pivotal to supermarket procurement strategies. This provides an 'Indian variant' to trends elsewhere, where smallholders have been by-passed in favour of larger suppliers. However, although smallholders are engaged by supermarket buyers, their role remains problematic in key respects, notably relating to attainment of product quality objectives, and the ensuing risk of product rejection.</p>
<p>S2: Fold, Niels Department of Geography and Geology, University of</p>	<p>Cooperatives and the streamlining of fruit production in the Mekong delta During the recent couple of decades, agricultural production in the Mekong delta has been transformed from a previously heavy reliance on rice to a much more diversified production based on various tropical fruits. Domestic demand for fruit has increased reflecting the growth in urban income levels and the increased demand for fresh fruit. The export potential is huge due to booming urban markets in</p>

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Copenhagen, Denmark	neighbouring China, presently the most important market for fruit exports, and the large consumption of fresh fruit and vegetables in the OECD countries. The Vietnamese government has launched several policy initiatives to boost exports of horticultural products. 'Speciality fruits' have been selected based on their export potential and specific areas have been designated for extension services. Other public initiatives aim to increase the quality and safety of Vietnamese products to comply with quality standards set on the major OECD markets. However, so far these initiatives have yielded only modest results. The paper examines the organisation of fruit production in the Mekong delta and focuses on the barriers for exports, including the plethora of varieties that impedes sourcing of adequate volumes of consistent quality and the undermining of contractual relationships between farmers and exporters/processors by numerous wholesalers and collectors. The paper also discusses the possibility - and desirability - for producer cooperatives to change the present dynamics of the value chain.
S3: Abbas, Zakaria, Bustanul Arifin, and Hanung Ismono Department of Agricultural Economics and Social Sciences, College of Agriculture, the University of Lampung (UNILA), Indonesia	Micro-institutional analysis of maize farmers' groups in East Lampung, Indonesia: The roles of ABGC partnership in linking farmers to market This paper analyses micro-institutional settings, mechanisms and environment of maize farmers' groups in the Districts of East Lampung, Sumatra-Indonesia. Fields observations, combined with purposive participatory rural appraisal (PRA) and several focus-group discussions (FGD) were conducted to gather data and information in the village of Sumber Agung and to verify on the institutional settings and mechanisms already available. An in-depth analysis is also employed based on head-to-head interview with prominent figures of informants and competent resource persons to examine further the institutional environments what appears to work where and under what conditions, as well as what we learn from what does not seem to work. Since 2007 the University of Lampung (UNILA) has developed a model of ABGC (academics, business, government and civil society) partnership to strengthen the links between farmers and market. Feed companies in the district not only serve as a buyer of the maize produced by farmers, but also as a price guarantor during the production cycle. Local government is interested in local economic development and poverty alleviation, and the association of farmers group convey information to the member farmers. Later, the banking sector joined the ABGC partnership as they have interests in providing financial access to maize farmers, through farmers' groups and/or associations. The university provides technical assistant and extension service, in maize production, post-harvest and marketing, and liaises the diverse interests among different stakeholders. In the first year, 28 groups have joined the association, making the total of 568 farmer members, covering about 725 hectares of maize field. Since then, the association has had a direct access to maize drier, processor, and feed companies. About Rp 128 million of farm credit was disbursed to the farmers and the yield of maize increased from 4.25 to 5.35 ton per hectare. Although the ABGC partnership is not the only driver, secured economic incentives and favourable institutional environment have played a major role in increased maize production, farmers' income, hence contributing to poverty alleviation in rural areas. The immediate challenge is how to maintain the interests and commitments shown by local stakeholders to govern and regulate groups of associated agents and enable collective control over transaction and guarantee the consensus for action and evaluation required for joint action for better future.
S4: Challies, Ed Victoria University, Wellington	Global Commodity Chains and rural livelihoods: Small-scale raspberry producers in Yerbas Buenas, Chile The research is based around a localised case study of peasant farmers in Chile's Region 7 (<i>Region del Maule</i>) and their participation, via global agri-food chains, in export agriculture. The project's aims are: (1) To understand and explain the structure and nature of the commodity chain for berries, and the terms on which small-scale Chilean producers are integrated into this chain; and (2) To understand the implications for local rural development, at the household and community levels, of participation in this chain. Methodologically the research draws on commodity chain analysis and a rural livelihoods approach in an attempt to understand the real local development implications for rural households and communities, of participation in the global agri-food complex via agri-food chains. The study draws on over 60 interviews, conducted in Chile in 2007-2008, with a wide range of actors in the commodity chain for raspberries. Participants include peasant farmers and heads of households, company managers and representatives, intermediaries, transporters, exporters, input providers, agronomists and technicians and local and central government figures. Additionally the project draws on numerous field visits to sites of primary production and processing, as well as secondary statistical data collected in Chile.

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<p>S5: Neilson Jeff School of Geosciences, University of Sydney</p>	<p>Who really benefits from organic certification? Lessons for the coffee highlands of Central Aceh Organic certification in the coffee highlands of Aceh has been promoted by NGOs, local government, international development agencies and international coffee buyers alike as a way to improve farm livelihoods while protecting the natural environment. But, who really benefits from organic certification? Results from this recent study suggest that considerable benefits flow to consumers, branded manufacturers, exporters and local elites (in Aceh). However, organic certification (like perhaps other similar modes of product accreditation in the industry) appears to actually exert a downward pressure on farm-gate prices and farm profitability due to heightened transaction costs along the certified supply chain. Is this due to the local characteristics of environmental and social systems in Central Aceh or are similar findings also likely in other sites of organic production in the developing world?</p>
<p>S6: Sekher, Madhushree Tata Institute for Social Sciences, Mumbai, India, and Regina Birner, International Food Policy Research Institute (IFPRI), Washington DC</p>	<p>Best practice or best fit? New approaches for agricultural extension in India The recent increase in world food prices underlines the need to reform agricultural extension services. The paper uses the case of India to analyze the opportunities and challenges of such reforms. India's agricultural extension system had been successful in helping to launch the Green Revolution, but has deteriorated since then. According to data from a household survey in Karnataka conducted in 2006, more than three quarters of the surveyed farmers complained that no extension worker visits their village. The paper shows that low access to extension services is the consequence of downsizing of public sector extension, which has not been compensated by the emergence of private or non-governmental extension services. The major reform approach in India is the promotion of a standardized extension model, the Agricultural Technology Management Agency (ATMA model). The paper shows that the "unhappy marriage" of public sector downsizing and the top-down promotion of a unified model has little prospect to serve farmers' diverse extension needs, even though the ATMA model has important innovative features. The paper argues that "best fit" solutions, which are developed in a participatory approach and tailored to local conditions, offer a more promising solution to reforming agricultural extension.</p>
<p>S7: Smith, Kiah School of Social Sciences, University of Queensland</p>	<p>Ethical trade and the experiences of women smallholder farmers in Kenya As a consequence of corporate attempts to improve conditions for farmers in export horticulture, many women smallholders in Kenya are finding themselves governed by multi-stakeholder codes for 'ethical trade.' However, a large body of research suggests that the standards used in ethical sourcing do not reflect the norms, values, needs and priorities of producers, largely due to a lack of women smallholders' participation at the grassroots level. In this paper, I suggest that the problem extends to the very ways that well-being, participation and livelihood priorities are (or are not) embedded in Western notions of ethical trade, which ultimately provide the context in which local livelihoods are constructed. Based on recent research with smallholder farmers in Kenyan French bean production, this paper examines <i>women farmers' understandings of local social and environmentally sustainable livelihoods</i> under ethical trade regulations. This paper focuses on participants' experiences in their own words – their definitions of well-being, their knowledge surrounding livelihood decisions, and their experiences of participation in ethical trade food networks. The women in this study had very clear visions of what mattered most in their local food systems, but very little knowledge of ethical trade and how it relates to their everyday practices – it is therefore not surprising to learn of very little transference of values between the women smallholders and global 'ethical' governing bodies.</p>
<p>S8: Sharp, Timothy Department of Human Geography, Australian National University</p>	<p>Beyond an export oriented discourse of markets: betel nut and the informal economy in Papua New Guinea Governments, NGOs, and smallholders themselves commonly prioritise participation in export cash crop markets as a key development strategy in Papua New Guinea (PNG). This discourse remains potent despite export oriented networks typically placing smallholders on the periphery. Nevertheless smallholders often retain significant room for manoeuvre. Some smallholders have created alternative markets in the informal economy and in doing so marginalise and exclude corporations and the state from within their networks. In PNG the domestic trade in betel nut, a legal stimulant consumed widely across the Asia-Pacific, provides a prominent example. This market contributes greater income to rural Papua New Guineans than many of the export cash crops, and in certain communities it is the main source of income. It is also an important way in which money becomes redistributed. Despite this betel nut, and the informal economy more generally, is largely ignored in discussions on the PNG economy. Based on extensive fieldwork which traces betel nut trade</p>

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	<p>networks across PNG, I argue that the betel nut trade demonstrates the capacity of smallholders to reshape and create markets. This affords smallholders greater agency to frame the market in line with their own interests. I present the betel nut market as a flourishing indigenous alternative market in order to challenge the dominant development and economic discourses within PNG.</p>
<p>T1: Beilin, Ruth Department of Resource Management and Geography, Melbourne School of Land and Environment, University of Melbourne</p>	<p>Applying resilience thinking to the case of the potato growers in Corangamite Victoria Previously, Pike and Beilin (2006) and Beilin and Pike (under review) have described the ethnographic study of potato farmers in the context of catchment management and the challenges of water regulation. In this paper, the adaptive cycle (Holling, 1986) and Holling and Meffe's (1996) paper on the 'pathology of NRM' are connected to the pathology of agro-industrial food chains through the continuing exploration of the potato growers' experience. The resilience metaphor and the adaptive cycle expose the tightening options for farmers associated with the appeasement of industrial agricultural demands. It also highlights the strange partnerships between the various shadow and formal networks in the landscape and how these both enable and prevent change to everyday landscape practice. The case study is presented in the first instance, as a theoretical exploration of some of the key ideas derived as ecological resilience but that have transferred to the social landscape. The analysis considers the practical reality of this transference, with reference to the potato grower case study; and how the analysis of agrifood systems can benefit from and inform resilience thinking about integrated approaches to landscape change.</p>
<p>T2: Larsen, Kirsten University of Melbourne</p>	<p>Opening up trans-disciplinary dialogue and action in the food system through risk / resilience assessment The Victorian Eco-Innovation Lab published its first policy challenges report Sustainable and Secure Food Systems for Victoria in April 2008. This report analysed the environmental impacts of the food system and how these impacts translate into risks to food security. It also explored a wide range of responses and innovations emerging throughout the system with a view to expanding the knowledge base of decision makers and legitimising a wider range of food system innovations. The report received significant media coverage and attention within the Victorian State Government, academia and more broadly. This paper will discuss the 'behind the scenes' motivations for the development and positioning of this report. It will consider how the strategic framing as a whole of system risk / resilience assessment enabled the introduction of resilience concepts such as diversity, redundancy and learning, and how these concepts were used to make a case for a broader interpretation of 'innovation' in the food system. This paper will reflect on the value of building an indisputable case of converging multiple stressors on the food system, which then challenges existing paradigms of government action and portfolio separation – 'whose responsibility is it anyway' and 'isn't what we're doing enough'? This paper will also briefly touch on the challenges of relevance in a fast-moving field and the attempt to build collaborative online resource that can support interdisciplinary work on food systems in Australia.</p>
<p>T3: Small Bruce and Liz Wedderburn AgResearch, Ltd New Zealand, Martin O'Connor, Centre of Economics and Ethics for the Environment and Development at the University of Versailles Saint-Quentin-En-Yvelines, and Tim Barnard, Scion, New Zealand</p>	<p>The deliberation matrix: A partial trial in an agricultural context In common with many difficult policy problems, agricultural practices, policies, and regulations have impacts on the environment, the economy, and people's social and cultural wellbeing. Both nationally and internationally, sustainability in these four value domains is considered essential for sustainable development. However, impacts and priorities differ for, and are more or less pertinent to, different individuals, stakeholders and groups in the local and wider communities. Thus, for any particular practice, policy or regulation, there will be consequences, synergies and trade-offs across both value domains and stakeholders. In order for policy makers to make good decisions it is necessary that these potential consequences be made transparent. It is also important that they are transparent to the stakeholders, not only for themselves, but also as they concern the 'other'. Martin O'Connor and colleagues from the Centre of Economics and Ethics for the Environment and Development at the University of Versailles Saint-Quentin-En-Yvelines have developed a tool, called the Deliberation Matrix (DM), which is designed to assist with this. The Values Programme in the Pastoral 21 project is using variants of the DM to help establish agriculture's contribution and impacts on New Zealand community values. The programme is also helping to develop the DM, and associated processes, by progressively trialling aspects of it in contested real life situations. The quality of water in the Rotorua lakes is a major concern to the local community and the Regional Council, Environment Bay of Plenty (EBOP). In response, one strategy currently under consideration by EBOP is the implementation of a policy called Rule 11. This proposed rule would cap</p>

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	<p>nutrient applications on farms at the average levels used in the 2001-2004 period. Farmers in the region affected by Rule 11 are very resistant to its implementation. In this paper, we report on a trial of the DM concept, conducted with approximately 60 participants at a Dairy Industry Sustainable Environmental science/extension forum, regarding the proposed Rule 11.</p>
<p>T4: Farmar-Bowers, Quentin Centre for Sustainable Regional Communities, La Trobe University</p>	<p>Understanding the decisions women make in farming families Previously we interviewed farming families and developed decision-system theory (DST) to understand the processes farming families use in making strategic decisions. Decisions such as ‘shall we seek off-farm jobs’, ‘how shall we education our children’, ‘shall we expand the farm or sell it’, ‘should be change our enterprise mix’, ‘shall we conserve native habitat on the farm’, ‘how should we adapt to climate change’. To refine DST we are now interviewing women who run farms or have a principal role in the family’s farm businesses. This paper will present our preliminary findings, outlining the developments of DST and its value in policy development, and in the sustainability of farming communities.</p>
<p>T5: Hunt, Lesley AERU, Lincoln University</p>	<p>The ‘good’ farmers of New Zealand The good farming literature suggests that through the use of particular practices farmers gain recognition within their communities in the form of symbolic capital. This symbolic capital gained from high productivity and the production of particular landscapes is purported to be of more importance to them than that gained from using sustainable resilient environmental practices. This paper reports on an attempt to draw together some of the social, farm management, ecological and financial data collected from sheep/beef farmers participating in the Agriculture Research Group on Sustainability (ARGOS) project and their farms, in order to explore this topic of ‘good farming’. The ARGOS programme is transdisciplinary, incorporating farm management, environmental/ecological, economic, and social objectives to compare organic, integrated and conventional land management practices.</p>
<p>T6: Pini, Barbara Curtin University of Technology, and Bryant, Lia University of South Australia</p>	<p>Reading the discourses of gender, farming and disability in Australian Story’s <i>With this Ring</i> Feminist disability scholars have argued that feminists’ preoccupation with difference rarely extends to disability. This has certainly been the case in terms of feminist studies of rurality. Further, the literature on physical disabilities and rurality, like the rural mental health literature, is largely situated within a medical model, with much less work on the lived experiences of disability in a rural context. In seeking to address these gaps in the rural and feminist literature we present data from our own investigation of disability, gender and rurality, through a textual analysis of <i>With this Ring</i>, which tells the story of the impact of a farming accident on the lives of Gayle and Mac Shann, a young married couple living on a property in rural Australia. The accident left Gayle physically disabled. Our concern with the construction and enactment of rurality, gender and disability in the text highlights the critical role of nature, as it is deployed to signify particular meanings, assumptions and values about people and place. This textual analysis also gives insight into the ways in which the couple are situated within, and against, some of the dominant cultural scripts of disability, rurality and gender.</p>
<p>T7: White, Toni AgResearch Ltd, Hamilton, New Zealand</p>	<p>Managing environmental water quality on farm: Farmers’ perspectives Water quality is an environmental issue that is becoming increasingly significant in agricultural food production. The ‘dirty dairying’ campaign initiated in 2001 by Fish and Game New Zealand highlighted the link between dairy farming and declining water quality. This forced the dairy industry to assess their environmental impact and increase efforts to mitigate these. In 2007 five key dairy farming regions in New Zealand were surveyed to identify farmers’ perception of their ability to manage practices on farm that contribute to declining water quality. One of the key findings of this study was that farmers indicated they were able to confidently deal with the practices often associated with water quality issues. The demand by farmers for information on mitigation methods to reduce water quality impacts is therefore limited by their belief that they are dealing with these issues adequately. However, as local authorities increasingly highlight deficiencies in on farm practices which impact on local water quality, it is clear that there is a gap between the perception by farmers of their effectiveness in dealing with water quality issues on-farm and other stakeholders perceptions of the situation.</p>
<p>T8: Gill, Fiona School of Social and</p>	<p>Decision-making on farms – intergenerational attitudes towards change In July 2000, the Australian dairy industry completed the process of deregulation. This process reflected a wider shift in the nature of</p>

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Political Sciences, University of Sydney	<p>agriculture, a shift driven by a changing economic context. The changes involved have included the rationalization of farming practices, a globalization of the market and falling real prices for agricultural products. This process overall might be understood as part of a neoliberalisation of agricultural practices in general, and dairying in particular. The process of neoliberalisation has resulted in a global decline in state support, with the result that risk is devolved onto the individual. Individual farmers must, therefore, take on a higher level of responsibility for success and failure without the safety net provided by the state. Specifically, neoliberalisation has forced change onto farmers – survival became dependant upon an individual’s capacity and willingness to make the necessary changes. This paper argues that ability to make changes depends upon the recognition of the need to change, and the ability to make the necessary changes. Further it suggests that these changes in attitude and practice may be driven by the time in a farmer’s life cycle they occur, and the farmer’s faith in a viable future for their farm. By comparing the personal narratives of two generations of farmers on family farms, clear links are drawn between an individual’s attitude towards farming, either as part of a industry collective (pre-deregulation), or as an individual (post-deregulation), and their attitude towards risk and change. In comparing these narratives, it becomes clear that the new context, symbolized by deregulation, marks not only a different, global, agricultural context, but also the recognition of a fundamental change in the nature of farming itself.</p>
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