Agrifood XXI
21st Conference of the Australasian Agri-Food Research Network
24–26 November 2014

24-25 November
The National Centre of Indigenous Excellence
166-180 George St Redfern, NSW

26 November
The University of Sydney,
Main Campus
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Dear Agri-Friends,

Welcome to Agri Food XXI, the 2014 convergence of members and friends of the Australasian Agri-Food Research Network (AFRN).

Some of you will be Agri-food regulars. One of the things our community prides itself on is the commitment of our repeat participants. The AFRN began with less than ten researchers meeting in a room at Griffith University in 1992. The following year we held our first conference. Many of the faces from those early days are still active agri-food researchers, and frequently some of the first to register each year.

These modest beginnings continue to inflect the Network in crucial ways. We are a diverse collection of researchers interested in the ways that food and agricultural systems connect to society and the environment. At the AFRN, the academic discipline you belong to is less important than the fact you are part of a community with a shared set of interests and commitment. And as part of this framing, at Agri-food conferences we are critical in the way we interpret the food systems around us. Being critical doesn’t mean being negative, and nor is akin to being put in a package labelled ‘alternative’. Being critical means thinking deeply about taken-for-granted assumptions, and finding new ways of interpreting processes by linking together different concepts or evidence. And finally, the modest beginnings of the Network stay with us in our commitment to open, collegial and fun conferences. Agri-food conferences tend to have proportionately more postgrads and junior researchers than many other academic conferences. We also embrace non-University agri-food researchers and practitioners, from NGOs, government agencies and the broader community sector. This inclusiveness is not by accident. A prevailing modus operandi is that we try to create an environment where new, younger and practical voices can find a comfortable place in our discussions.

This year’s conference is hosted by Food, People, Planet node within the Sydney Environment Institute (http://sydney.edu.au/environment-institute), which is an integrative research and community engagement institution of the University of Sydney. The Conference organisers (we collectively call ourselves ‘the Kitchen Cabinet’) thank the Sydney Environment Institute for their support of this conference. The link with the Sydney Environment Institute provides the motto for Agrifood XXI: “Food – People – Planet”. It also contextualises our choices of Keynote Speakers for the Conference. Dr John Ingram, the Food Systems Program Leader at Oxford University’s Environmental Change Institute (http://www.eci.ox.ac.uk/people/ingramjohn.php), who has been at the forefront of global debates on the impending issues for the world’s food systems in the context of environmental degradation, resource constraints and climate change. Ronni Kahn is the CEO of Ozharvest, a leading food rescue NGO. Ozharvest achieves joint environmental and social outcomes from its activities. It reduces food waste and helps ensure food justice for some of the neediest in Australia.

The Sydney Environment Institute’s support of agri-food research complements a brace of other food-related activities at the University of Sydney over the past couple of years, notably the establishment of the Charles Perkins Centre, which has core research interests in the links between nutrition, diets and human health. We are pleased that members of the Charles Perkins Centre will be participating in this conference.
Agrifood XXI will take place in two sites, and will be accompanied by a rich ancillary program. By the time you are reading this booklet, you would have registered for either (or both) of our two pre-Conference field trips, on the weekend of 22-23 November. On the late afternoon (5pm) of Sunday 23 November, we hope you can join us for Welcome Drinks, at the Rose Hotel, a hundred year old pub on the corner of Cleveland St and Shepherd St, Chippendale, just near to the University of Sydney main campus.

The Conference proper starts on Monday morning at the National Centre for Indigenous Excellence (NCIE). This is a short walk from Redfern train station. We encourage you to take public transport to the conference, and provide details later in this booklet. At the conclusion of activities at the NCIE on Monday, we continue our Agri-food activities with a public seminar on food and climate change at the University of Sydney main campus. The panel for this public seminar (part of the University’s Sydney Ideas program) includes our Keynote Speaker John Ingram, member of the conference organising committee Bill Pritchard, and Simon Bradshaw from Oxfam Australia. Monday concludes with one of the great traditions of Agrifood conferences – the trivia night. This will be held at the Grandstand Bar overlooking the gorgeous ovals on the University of Sydney main campus. It is an event you should not miss.

The conference continues on Tuesday 25 November at the NCIE. At the conclusion of Tuesday’s sessions we have the Conference Dinner, which is a food happening held at Redfern Town Hall (linked with the important Redfern Legal Centre) with catering done by the urban guerrilla foodies, Full Circle. If you intend to participate in the dinner and/or the fieldtrips, but have not yet registered, please do so immediately.

On Wednesday 26 November the conference takes place on the University of Sydney main campus, at the Carslaw Building (see directions, elsewhere in this booklet). The day begins with a Keynote Address by Ronni Kahn, and then moves into panel and paper sessions. We conclude the academic part of the conference mid-afternoon and convene (again) at the Grandstand Bar for another of the great agri-food traditions, the Agri-Bagri Awards. For the uninitiated, these are tongue-in-cheek awards with the not-so-subtle aim of finishing the conference on a fun note.

We thank Carol Richards, the current AFRN Convenor, for all her support and assistance during the planning and preparation for this conference, and Michelle St Anne and Elizabeth McArthur, of the Sydney Environment Institute, without whom this conference could not have happened!

**The ‘Kitchen Cabinet’**

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<tr>
<th>Name</th>
<th>Phone Number</th>
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<tr>
<td>Bill Pritchard</td>
<td>0418 231 427</td>
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<td>Elspeth Probyn</td>
<td>0412 548 762</td>
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<td>Alana Mann</td>
<td>0408 234 393</td>
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<td>Luke Craven</td>
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<td>Chetan Choithani</td>
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<td>Helen Greenwood</td>
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<td>Kate Johnston</td>
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<td>Rany Pen</td>
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<td>Mark Vicol</td>
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Food, People and the Planet

Agrifood XXI

Never in human history has our interconnected global food system faced the diversity, intensity, and urgency of challenges that it faces today. Our global population has exploded, with an unprecedented raw number of these new people, especially women and children, struggling to eat well, or eat at all. Our climate is changing, partially in response to the overtaxing of our precious food-producing natural and human environments, putting these limited ecologies and social systems at risk. What’s more, the physical substance and choices of food are themselves evolving in accordance with new ways of growing, raising, gathering processing, consuming, and living.

This is the time when conversations about food need to extend beyond the kitchen and into the fields, forests and fisheries so that theory and practice might co-evolve to spark much needed changes in policy, knowledge and attitudes. The AgriFood XXI Conference will combine activists, academics, practitioners, students and professionals to offer a wealth of practical and lived experiences towards understanding and bettering linkages with our nutrients. And with these varied experiences AgriFood brings equally diverse perspectives, from social justice, environmental sustainability and responsibility, culture and gender issues, and many more, together to one table to talk about food.

We have deliberately chosen to convene at the National Centre for Indigenous Excellence in Redfern to place our discussions on food and agriculture in an Indigenous space. Catering will be done by Indigenous trainee staff at NCIE and we will eating from an Indigenous-themed menu.

We are taking steps to minimise the ecological footprint of this conference by not providing conference bags and by sending you this booklet as a pdf, which you can print yourself or read it online using your laptop or tablet at the conference. For those delegates who would like to consider offsetting their carbon emissions if flying to Sydney, please visit Journeys for Climate Justice (www.journeysforclimatejustice.org.au) as an option.
How to get to the Conference Venues
The map at the following link shows you how to get from Redfern train station to the NCIE, 166-180 George St, Redfern: http://ncie.org.au/about.

Look out for the Sydney Environment Institute banner outside the entry gates.

Registration will take place in the main building, and conference presentations occur upstairs.

Maps for the following other venues are also included at the following links:
- Welcome drinks (Rose Hotel) http://therosehotel.com.au
- Sydney Ideas (Law Building, University of Sydney campus) http://sydney.edu.au/law/about/campus.shtml
- Agri-trivia and Agri-Bagri Awards (Grandstand Bar University of Sydney campus) http://www.thegrandstand.com.au/getting-here
- Day 3 (26 November) papers (Carslaw Building, University of Sydney main campus) http://lostoncampus.com.au/239/map

Wifi
Note that there are no special arrangements for Wifi access at the NCIE.

Wifi access is available on the University of Sydney campus.
1. Make sure your wireless adapter is set to dynamical obtain an IP address
2. Connect to ‘UniSydney-Guest’
3. Enter:
   - Username: agrifood
   - Password: agrifood21

Public transport in Sydney
The Opal card is an easy, convenient way of paying for your travel on public transport. It can be used on all Sydney Trains, Opal-enabled buses, NSW TrainLink InterCity services and Sydney Ferries services. It is a ‘pay-as-you-go’ system, with features including Travel all day on Sunday with Opal for no more than $2.50. Well worth the time you will take ordering one online at https://www.opal.com.au, especially if you plan on participating in the pre-conference field trips.

Conference Photos
A public Flickr site has been set up for sharing our Agrifood photos – there are a few up here from previous years, so please feel free to snap away at this year’s conference and upload them to: http://www.flickr.com/groups/agrifood/pool

Twitter
Please tweet your updates and take-outs throughout the conference using #agri2014
David Burch Prize

As one of the early co-founders of the Network 20 years ago, and the Network convenor for the first 10 years, Professor David Burch has been a key figure in building the agri-food network and mentoring and supporting students and early career researchers. He has been associated with developments that have raised the profile of the Network – including mentorship and facilitating a program of publications from the Network meetings. In the 10 years from 2000 to 2010 David has supervised and mentored over 20 PhD students, and supported and influenced many more through his kind and approachable manner, depth of knowledge of his field and commitment to building and promoting Agrifood studies.

Up until 2010, he had never missed a meeting, but has been absent since, due to ill-health.

Professor Burch has had a long and fruitful career in Agrifood studies. In 1980, he earned a PhD from Sussex University in the UK for his work on the Green Revolution in Sri Lanka. He later worked at Griffith University, Australia for 33 years until his official retirement in 2009. Following his retirement, he joined The University of Queensland as an Honorary Professor, where he continued his work on power in food supply chains and the financialisation of agriculture. The key focus in all of his work has been on the inequities in food distribution, particularly the ways in which patterns of income distribution, technological development and urban consumption has impacted on the rural poor of the less developed countries, usually resulting in their lack of access to food - even where food is plentiful.

Starting in 2012, the Australasian Agrifood Research Network honoured Professor David Burch’s contribution to agri-food scholarship by offering an annual David Burch Prize for Best Student Paper. In 2014 the prize of $500 and a certificate will be awarded to the student judged to have delivered the most outstanding paper in terms of the contribution to knowledge in social scientific agrifood studies. The competition is open to all graduate students presenting an unpublished paper primarily prepared by them (although co-authored papers are accepted). Judging will be based on the oral presentation, a written paper is not required. The panel of judges will be spread out across the sessions to ensure all student papers are assessed. If you would like to opt out of this, please let Bill Pritchard know.

Business Meeting

A business meeting will be held during the lunch break of the last day of the conference and you are invited to engage in open and deliberative democracy.

Sydney Weather

November is late spring/early summer in Sydney and the weather is warm and sunny. If we do get some light rain it should pass quickly. Plan for warm days and cool evenings. It can also be hot and humid!

You can find out more, including a daily forecast, at http://www.cityofsydney.nsw.gov.au/learn/about-sydney/weather-and-climate
Pre-conference Field Trips
The theme of Agri-food XXI, ‘Food, People and the Planet’, pays homage to the inter-relationships between agriculture, health, culture and the environment. Recognition of the rich cultural heritage of the Australian food-scape is reflected in the pre-conference field trips we have planned this year for the weekend (November 22-23) preceding the conference. These draw attention to the importance of Indigenous and ethnic food cultures and the contribution of these to shaping urban agricultural environments.

This ‘field work’ will support our aims to thoroughly identify, explore and interrogate the links - and lacuna - in our research and practice by meeting growers, community food activists, food justice advocates and chefs in the markets, on the streets and in the gardens and kitchens where they work. We recognise that collaboration between all these frontline workers is essential to making positive changes in our broken food system.

On the personal side, the field trips are guaranteed to give you an insider’s view of Sydney’s food culture, as well as the opportunity to meet and socialise with your fellow conference-goers over some very fine food!

If you have not registered for either or both field trips please do so immediately. Feel very welcome to contact your tour host, Alana Mann, on 0408 234 393 for more information, and make sure you have her number with you on the day of each field trip. You can also email her with any questions on alana.mann@sydney.edu.au

Field trip 1: Food in the City

Saturday 22 November, 8am – 2.30pm
Where and when to meet:
7:45 at entrance to Eveleigh Market at Carriageworks
(a short walk from the University and Redfern Station)
245 Wilson St, Eveleigh

Field trip 2: The World Food Tour

Sunday 23 November, 10am – 3pm
Where and when to meet:
9:45am at Bankstown Railway Station, North Terrace, Bankstown
(a 35 min train ride from Redfern Station)
Map: http://www.sydneytrains.info/stations/station_details.htm
Timetable: http://www.sydneytrains.info

Dress code: Please wear comfortable clothes, a hat and good walking shoes.

Helpful tip: Pre-purchasing an Opal Card (see Public Transport in Sydney) is recommended.
Welcome Drinks

Meet your fellow conference goers and/or wind down after the World Food Tour!

Where: The Rose Hotel [http://therosehotel.com.au](http://therosehotel.com.au) - there is a good map here), on the corner of Cleveland St and Shepherd St, Chippendale. **The Marmalade Room** is upstairs. Enter the hotel, walk towards the beer garden and go up the stairs.

When: Sunday 23 November, 5 - 7pm

Drinks and nibbles, with further drinks available through purchase at the bar.

Dress code: Casual
Sydney Ideas panel

Monday 24 November 2014
Global Food, Nutrition Security and Climate Change

How will a changing climate affect global food production and global hunger? What do we know and what needs to be done?

In March 2014, the Inter-Governmental Panel on Climate Change released the 5th Assessment Report of Working Group II, responsible for considering human adaptation to climate change. The Report presented a sobering, state-of-the-art assessment of how forecasts of climate change might affect global food systems. This is a complex area for future-gazing. Key assumptions about the interactions between climate change, agricultural production and the broader food system remain subject to considerable doubt. The three speakers will address this important set of issues.

Panellists
Chair: Professor Elspeth Probyn, Professor of Gender & Cultural Studies, the University of Sydney, as well as adjunct Professor of Cultural Geography at the University of Western Australia;

Associate Professor Bill Pritchard, Associate Professor in Human Geography specialising in agriculture, food and rural places, the University of Sydney;

Dr John Ingram, Food Programme Leader at the Environmental Change Institute, Oxford University.;

Dr Simon Bradshaw, Oxfam Australia’s Climate Change Advocacy Coordinator.

Venue: Sydney Law School Foyer, Level 2 Sydney Law School, the University of Sydney. University maps

Time: 6 to 7.30pm

Monday 24 November, 7.30pm
Agri-trivia. Directly following the panel we will adjourn to the Grandstand

Don’t miss this fun and irreverent evening hosted by quizmaster Luke Craven who will test our knowledge of all things agri!!

Venue: The Grandstand bar University of Sydney campus

Dinner and drinks will be available for purchase at the Grandstand Bar.

Luke Mitchell at the Grandstand will serve up interesting salads, Greek chicken and other selections suitable for vegetarian and vegan diets.

Dress code: Casual.
Tuesday 25 November 2014, 7pm

Conference dinner

This is no ordinary conference dinner, it is a ‘Food Happening’!

When: Thursday 25 November 2014, Start 7pm for a 7:30pm sit down.

Venue: Redfern Town Hall 73 Pitt St, Redfern

Set in the heritage venue of Redfern Town Hall just walking distance from where the conference will be taking place, this will be an evening of feasting on food and thoughts, orchestrated by Sydney food-smiths and provocateurs Full Circle.

If you have not registered for the Conference Dinner and intend to, please do immediately at http://events.sydney.edu.au/office3/getdemo.esi?id=30516&s=A001CIO89

Dress code: Smart casual dress.

Wednesday 26 November 2014, 3:30pm

Agri-bagri Awards

The Conference closes with the Agri-bagri Awards

When: 3:30pm

Venue: The Grandstand

Entry drinks and nibbles will be provided, with further drinks and food available on purchase.
### Monday, 24 November

**08.15-10.20**

- **08.15** Registration
- **08.45** Welcome to conference (Professor Elspeth Probyn, University of Sydney)
- **08.50** Welcome to Country
- **09.00** Official opening of the conference by Dr Michael Spence, Vice Chancellor and Principal, The University of Sydney
- **09.10** Reply of thanks, CEO National Centre for Indigenous Excellence
- **09.15** Keynote presentation: John Ingram (Oxford University)
  Food and Nutrition Security and its Interactions with Environmental Change
  Chair: Bill Pritchard (University of Sydney)

| 10.20 | Morning tea |

#### 10.50-12.25

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<th>Room 1</th>
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<tr>
<td><strong>Session:</strong> Trade Value Chains and Nutrition</td>
<td><strong>Session:</strong> Traditional Food Systems, Agro-biodiversity and Food Security</td>
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<tr>
<td>Convenor(s): Anne Marie Thow, Bill Pritchard (University of Sydney)</td>
<td>Chair: Richard Le Heron (University of Auckland)</td>
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<td>Chair: Chetan Choithani (University of Sydney)</td>
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<tr>
<td><strong>10.50</strong> Anne Marie Thow (University of Sydney [USyD]), David Sanders (University of the Western Cape [UWC]), Eliza Drury (USyD), Thandi Puoane (UWC), Syeda Nafisa Chowdhury (University of Sydney), Lungiswa Tsokile (UWC), Joel Negin (USyD)</td>
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<td>Importing Obesity: Implications of Regional Trade for NCD Prevention Policy in Southern Africa</td>
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<td><strong>11.05</strong> Jennifer Lacy-Nichols (University of Melbourne)</td>
<td>Cinzia Piatti (University of Otago), Chris Rosin (University of Otago)</td>
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<td>Corporate Responses to Health Concerns about Sweetened Beverages</td>
<td>Beyond Alternative/Conventional: Māori Worlds of Food?</td>
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<td><strong>11.20</strong> Gyorgy Scrinis (University of Melbourne)</td>
<td>Jessica Hutchings (National Māori Organics Authority of Aotearoa)</td>
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<td>Big Food’ Corporations’ Strategies for Producing and Marketing Healthier Food Products</td>
<td>Hua Parakore: A Māori Food Sovereignty Initiative</td>
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<td><strong>11.35</strong> Midori Hiraga (Kyoto University) &amp; Shuji Hisano (Kyoto University)</td>
<td>Nicholas Rahiri Roskruge (Massey University)</td>
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<tr>
<td>Restructuring Vegetable Oil Supply and Demand in Asia Under Food Regimes: A Preceding Example of Japan to Be Compared with Rapid Increase of Vegetable Oil Availability in Asian Countries</td>
<td>Rauwaru: The Proverbial Garden for Māori in New Zealand</td>
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<tr>
<td><strong>11.50</strong> Bill Pritchard (University of Sydney[USyD]), Jane Dixon (Australian National University), Chetan Choithani (USyD) &amp; Lizzie Hull (University of London)</td>
<td>Margaret Forster (Massey University)</td>
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<tr>
<td>“I Am Not Willing to Negotiate Livelihood Security”. Do Recent Food Policy Initiatives by India, South Africa and Brazil Constitute a New Food Regime?</td>
<td>Water Security and Indigenous Agency in Aotearoa New Zealand</td>
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<td><strong>12.05</strong> Session Q&amp;A</td>
<td>Session Q&amp;A</td>
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<td><strong>12.25</strong> Lunch</td>
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### AGRI-FOOD XXI CONFERENCE PROGRAM • MONDAY, 24 NOVEMBER 2014

#### 13.25-15.15

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<tr>
<td><strong>Session:</strong> Biogovernance</td>
<td><strong>Session:</strong> Food in the city</td>
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<tr>
<td><strong>Chair:</strong> Geoff Lawrence (University of Queensland)</td>
<td><strong>Chair:</strong> Bob Fagan (Macquarie University)</td>
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<tr>
<td>13.25</td>
<td>Brian Jones (University of Sydney)</td>
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<tr>
<td>GMOs, Synthetic Biology and 3D Printed Food: Technological Dystopia or Saviour?</td>
<td>Alison Rothwell (University of Western Sydney)</td>
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<td>13.40</td>
<td>Vaughan Higgins (Charles Sturt University [CSU]), Melanie Bryant (Swinburne University of Technology), Marta Hernandez-Jover (CSU), Luzia Rast (CSU), Connar McShane (James Cook University)</td>
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<td>Competing Institutional Logics and the Challenges of Biosecurity Governance in Australia</td>
<td>Ian Sinclair (University of Sydney)</td>
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<td>13.55</td>
<td>Lileko Lishomwa (Graham Centre for Agricultural Innovation [NSW Department of Primary Industries and Charles Sturt University])</td>
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<td>Incidental Biosecurity: The Role of Farmers’ Knowledge and Practices in Managing Pest, Weed and Disease Risk</td>
<td>Liesel Spencer (School of Law, University of Western Sydney)</td>
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<td>14.10</td>
<td>Alanna Linn (Monash University)</td>
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<td>Safe for Who? Regulating Raw Milk Risks in Australia</td>
<td>Thorin Beowulf (University of Sydney)</td>
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<td>14.25</td>
<td>Gareth Enticott (Cardiff University, Vaughan Higgins (Charles Sturt University))</td>
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<td>Maps, Mapping and the Governance of Animal Disease</td>
<td>Valentine Cadieux (University of Minnesota)</td>
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<td>14.40</td>
<td>Michelle Young (Australian National University)</td>
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<td>Options for Theorizing Biodiversity and Food Production</td>
<td>Damien Balzer, Therese McGillion, Alex Ilijadica and Joanna Baker (Youth Food Movement &amp; University of Western Sydney)</td>
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<tr>
<td>14.55</td>
<td>Session Q&amp;A</td>
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<td>Afternoon tea</td>
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#### 15.15-16.40

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<tr>
<td><strong>Session:</strong> Rural Place</td>
<td><strong>Session:</strong> Agricultural innovation and trust</td>
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<tr>
<td><strong>Chair:</strong> Alana Mann (University of Sydney)</td>
<td><strong>Chair:</strong> Brian Jones (University of Sydney)</td>
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<td>15.35</td>
<td>Michael Woods (Aberystwyth University)</td>
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<tr>
<td>(Re-)Assembling Rural Place in Agri-food Globalization</td>
<td>Rebecca Cross (University of Sydney), Peter Ampt (University of Sydney)</td>
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<td>15.45</td>
<td>Session Q&amp;A</td>
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| 15.50 | Vaughan Higgins (Charles Sturt University), Carol Richards (Queensland University of Technology)  
Multi-stakeholder Initiatives and Sustainability: The Shifting Terrain of Agri-Food Standards | Bruce Small (AgResearch Ltd), Pike Brown (Landcare Research), Oscar Montes de Oca (AgResearch Ltd)  
Values, Trust and Management in NZ Agriculture |
| 16.05 | Jen Cleary (University of Canberra), William van Caenegem (Bond University) & Peter Drahos (Australian National University)  
Rethinking Geographical Indications of Origin: Regional Economic Potential or Pandering to Protectionism? | Robin Stonecash (University of Sydney), Peter Ampt (University of Sydney), Rebecca Cross (University of Sydney)  
Debts, Land Value, Farm Credit and Eco-innovators |
| 16.20 | Adele Wessell (Southern Cross University), Mike Evans (University of British Columbia), The Landed Histories Collective  
There’s No Taste Like Home: Histories of Native Food on the Changing Tastescape of the Northern Rivers, NSW | Session Q&A |
| 16.35 | Session Q&A | Close - move to the University |
| 16.50 | Close - move to the University | |
| 18.00 | Sydney Ideas: A Panel Discussion on Global Food and Nutrition Security and Climate Change  
Panellists: John Ingram (Oxford University), Bill Pritchard (University of Sydney), Simon Bradshaw (Oxfam Australia)  
Chair: Elspeth Probyn (University of Sydney) | |
| 19.30 | Dinner and Agri-trivia at the Grandstand Bar | |
### Tuesday, 25 November

**09.00-10.30**

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<th>Room 1</th>
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<tr>
<td><strong>Session:</strong> Analysis of a Political Project: Food Sovereignty: Part I.</td>
<td><strong>Session:</strong> Food Security, Social Protections and Livelihoods in the Global South</td>
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<tr>
<td><strong>Convenor &amp; Chair:</strong> Alana Mann (University of Sydney)</td>
<td><strong>Chair:</strong> Mark Vicol (University of Sydney)</td>
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<td>09.00</td>
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<td>Alison Henderson (University of Waikato) &amp; Lee Edwards (University of Leeds)</td>
<td>Madhushree Sekher (Tata Institute of Social Sciences [TISS]), S. Parasuraman (TISS), Sandhya Kumar (TISS), Bill Pritchard (University of Sydney), Rajesh Rai (TISS), Anu Rammohan (University of Western Australia)</td>
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<td>Re-storying Fair Trade: Food sovereignty and Ethical Consumption</td>
<td>Empowering People to Power the PDS: A Process Mapping Analysis of the Public Distribution System in Six Indian States</td>
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<td>09.15</td>
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<td>Rebecca Duell (Griffith University)</td>
<td>Jorg Gertel (Leipzig University)</td>
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<td>On the Transformational Potential of ‘Local Food’: Insights for Social Justice and Sustainability</td>
<td>Geography of Temporalities: Flexicurity and Bread Riots</td>
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<td>Sean Connelly (Otago University)</td>
<td>Luke Craven (The University of Sydney), Hom Gartaula (University of Manitoba)</td>
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<tr>
<td>Our Food Network Dunedin: Alternative Food Initiative or Alternative Food Movement?</td>
<td>Rural Out-Migration and Food Security in Nepal and Vanuatu</td>
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<td>Travis M. Bartosh (University of Waikato)</td>
<td>Chetan Choithani (The University of Sydney)</td>
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<td>New Zealand Farmers’ Markets Communicative Engagement in the Local and the Global</td>
<td>Understanding the Linkages between Migration and Household Food Security in India</td>
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**10.50-12.15**

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<tr>
<td><strong>Session:</strong> Analysis of a Political Project: Food Sovereignty: Part II.</td>
<td><strong>Session:</strong> Food Worlds/Cultures</td>
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<tr>
<td><strong>Convenor:</strong> Alana Mann (University of Sydney) <strong>Chair:</strong> Kate Johnston (University of Sydney)</td>
<td><strong>Chair:</strong> Cinzia Piatti (University of Otago)</td>
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<td>Karyn Stein (University of Otago)</td>
<td>Michelle Phillipov (University of Tasmania)</td>
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<td>Maori Women &amp; Food Sovereignty in New Zealand &amp; the Pacific Islands</td>
<td>‘Helping Australia Grow’: Coles, My Kitchen Rules and Integrated Advertising</td>
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<td>11.05</td>
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<tr>
<td>Christine Parker (Monash University)</td>
<td>Gabrielle O’Kane, Barbara Pamphilon, Katja Mikhailovich, Coralie McCormack (University of Canberra)</td>
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<tr>
<td>To Nudge and Be Nudged: The Politics of Reflexive Consumerism and the Architecture of Choice in the Supermarket Aisle</td>
<td>A Moveable Feast: A Continuum of Engagement with Food Citizenship Across Five Different Foodways</td>
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<tr>
<td>Nicolette Larder (The University of Queensland), Sarah R. Sippel (Leipzig University), Geoffrey Lawrence (The University of Queensland)</td>
<td>Helen Greenwood (University of Sydney)</td>
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<td>Negotiating Shifting Land Control: Finance Actors as Land Owners in Rural NSW, Australia</td>
<td>Disgust and Trust: how a chef can persuade people to overcome eating prejudices</td>
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<td>03.15</td>
<td><strong>Session:</strong> Can the oceans feed humanity?</td>
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<td>13.15</td>
<td>Convenor &amp; Chair: Elspeth Probyn (University of Sydney)</td>
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<td>Elspeth Probyn (University of Sydney)</td>
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<td>13.30</td>
<td>Anna Farmery (University of Tasmania), Bridget S. Green, Caleb Gardner, Sarah Jennings, Reg Watson</td>
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<td>13.45</td>
<td>Sonja Ganseforth (University of Leipzig, Germany)</td>
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<tr>
<td>14.00</td>
<td>Carol Richards (Queensland University of Technology), Kristen Lyons (The University of Queensland), Ellena Shaw (The University of Queensland)</td>
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<td>14.15</td>
<td>Kate S Johnston (University of Sydney)</td>
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<td>14.30</td>
<td>Catherine Phillips (University of Queensland)</td>
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<td>14.30</td>
<td>Jenny Kaldor (University of Sydney), Christopher Mayes (University of Sydney)</td>
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**Room 1**

**Session:** Can the oceans feed humanity?

**Convenor & Chair:**

Elspeth Probyn (University of Sydney)

**Session:** Governing Climate Change

**Convenors & Chairs:**

Kiah Smith & Geoffrey Lawrence (University of Queensland)

**Room 2**

**Session:**

**Room 1**

**Room 2**

**Session:**

**Convenors & Chairs:**

Kiah Smith & Geoffrey Lawrence (University of Queensland)

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**Room 1**

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Kiah Smith & Geoffrey Lawrence (University of Queensland)
### 03.15-15.20 (continued)

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<tr>
<td>14.45</td>
<td>Robert Parker (University of Tasmania [UT]), Peter Tyedmers (Dalhousie University), Caleb Gardner (UT), Bridget Green (UT), Klaas Hartmann (UT), Reg Watson (UT) Fishing for a Green Diet: The Energy Demands and Carbon Footprint of Global Fisheries</td>
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<tr>
<td>15.00</td>
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### 15.45-17.00

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<tr>
<td>16.00</td>
<td>Katharine Legun (University of Otago) Massive Modern Packing Lines in an Era of Affected Food Markets</td>
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<tr>
<td>16.15</td>
<td>Angga Dwiartama (Institut Teknologi Bandung) The Vibrancy of Rice in Indonesia’s Agriculture and Food System: A Look Beyond Political Economy</td>
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<tr>
<td>16.30</td>
<td>Chris Rosin (University of Otago), Hugh Campbell (University of Otago) Sustainability and Metrology: Examining the ‘Metric-Centric’ Approach to Sustainability Audits in NZ</td>
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<tr>
<td>16.45</td>
<td>Session Q&amp;A</td>
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<td>19.00</td>
<td>Conference Dinner</td>
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### Wednesday, 26 November: Carslaw Building, University of Sydney main campus

**09.00-11.15**

#### Carslaw 173

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<tr>
<td>09.00</td>
<td>Plenary presentation: Ronni Kahn (Chief Executive Officer, OzHarvest) Food waste and social justice</td>
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<td>Chair: Mark Vicol (University of Sydney)</td>
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<td>09.50</td>
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<td><strong>Carslaw 173</strong></td>
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<tr>
<td>10.00</td>
<td><strong>Panel Session:</strong></td>
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<td>Scientists across borders? The dynamics of science/social science interactions in research on food systems—contributions from the Charles Perkins Centre on Global Food and Nutrition Security:</td>
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<td>Panellists: Robyn Alders (University of Sydney), Jenny-Ann Toribio (University of Sydney), David Reubenheimer (University of Sydney), Brian Jones (University of Sydney)</td>
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<td>Respondents: Geoff Lawrence (University of Queensland), Hugh Campbell (University of Otago)</td>
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#### Carslaw 273

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<tr>
<td>10.00</td>
<td>Daniel K. Y. Tan (The University of Sydney) Can a Healthy Diet be Environmentally Sustainable?</td>
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<td>10.15</td>
<td>Robin Krabbe (University of Tasmania) The power of food and exchange: positive ecology, co-governance and sustainable health and wellbeing</td>
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<tr>
<td>10.30</td>
<td>Michael Adams (University of Wollongong) Wild Food in the Illawarra</td>
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<tr>
<td>10.45</td>
<td>Libby Salmon (Australian National University), Julie P. Smith (Australian National University) Food security for infants and young children: protecting the primary producer</td>
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**11.15 Morning tea**

**Morning tea**

*11.30-12.30*

#### Carslaw 173

**Session:** The Post-Human Turn in Agrifood Studies: From Metrologies to Vibrant Materialities: Part II (Spaces and Flows).

**Convenors & Chairs:**
Matt Henry (Massey University)  
& Katy-Anne Legun (University of Otago)

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<th>Time</th>
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<tr>
<td>11.30</td>
<td>Jess McLean (Macquarie University) Water Cultures as Assemblages: Human and More Than Human Agency Renegotiating Development Trajectories in Northern Australia</td>
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#### Carslaw 273

**Session:** Food Security and Peoples’ Lives in the Global South

**Chair:** Luke Craven (University of Sydney)

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<th>Time</th>
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<tr>
<td>11.45</td>
<td>Richard Le Heron (Auckland University), Gordon Winder (Ludwig-Maximilians-Universitat), Nick Lewis (Auckland University) Land-Coast-Ocean and the Reach and Territorialisation of Biological-Economic Relationalities</td>
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<td>Johanna Wong (University of Sydney), Robyn Alders (University of Sydney), Joanita Jong (MoAF, TL), Antonino do Karmo (MoAF, TL), Brigitte Bagnol (Wits University), Nick Harris (Dept of Agriculture, Australia)</td>
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<td>The Intersection of Food Security, Gender and Village poultry in Timor Leste</td>
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<td>John McCarthy (Australian National University) Responding to the Food Security and Land Dilemma: The Case of Kalimantan’s Transitional Landscapes</td>
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| **12.00**  
Dan Kristian Kristensen (Aarhus University)  
Agro-Food Futures: Heterogeneous Associations and Processes of “Spacing” in a More-Than-Human World | **12.00**  
Debjeet Sarangi & Salome Yesudas (Living Farms [NGO] India)  
The Traditional Food System of Kondh Community |
| **12.15**  
Nick Lewis (Auckland University)  
‘Degree-days’ and Mt Erebus Pinot Noir: The Political Work of Zombie Metrolgies | **12.15**  
Julia de Bruyn (The University of Sydney), Robyn Alders (The University of Sydney), Brigitte Bagnol (Wits University, South Africa), Ian Darnton-Hill, Mu Li (The University of Sydney), Wende Maulaga, Hilda Lumbwe  
Family Poultry and Food Sovereignty: Exploring locally-appropriate, sustainable solutions to child undernutrition in sub-Saharan Africa. |
| **12.30** Session Q&A | **12.30** Session Q&A |
| **12.45** Lunch | **12.45** Lunch |
| **1.15**  
AFRN Business Meeting | **1.15**  
AFRN Business Meeting |

### 13.45-15.15

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| **Session:** [The Post-Human Turn in Agrifood Studies: From Metrologies to Vibrant Materialities: Part III (Thing-Power in Agri-Politics).](#)  
Convenors & Chairs:  
Matt Henry (Massey University)  
& Katy-Anne Legun (University of Otago) | **Session:** [Session: Digging into Land: Diverse Incorporations of Land into Livelihoods and Food and Nutrition Security in Southeast and South Asia.](#)  
Convenors: Chetan Choithani, Yayoi Fujita Lagerqvist, Jeffrey Neilson, Bill Pritchard & Mark Vicol (University of Sydney)  
Chair: Yayoi Fujita Lagerqvist |
| **1.45**  
Michael Carolan (Colorado State University)  
Gastronomic Populism | **1.45**  
Krishna Shrestha, Hermant R Ojha, and Rahul Karki (U of New South Wales)  
The forest-food paradox: Rethinking Nepalese community forestry in the face of food insecurity |
| **2.00**  
Erena Le Heron (Auckland University)  
‘Sleeping’ Materialities and Disruptive Non-Human Agency: Making Visible Vibrant Materialities of the “ Giant, Carnivorous, Endemic Land Snail”, Powelliphanta Augusta | **2.00**  
Jeff Neilson (The University of Sydney)  
Land, livelihoods and the Agrarian Transition in Indonesia |
| **2.15**  
Bethaney Turner (University of Canberra)  
Alternative Food Networks, Thing-Power and Ecological Connections: An Exploration of How Food Disrupts Anthropocentric Thinking | **2.15**  
Mark Vicol (The University of Sydney)  
Food Security, Rural Livelihoods and Agricultural Change: Evidence from a Case Study of Potato Contract Farming in Maharashtra, India |
| **2.30**  
Cassandra McTavish (Massey University)  
Blurred Divisions of Food and Being: Making and Remaking Dairy Cows in the Manawatu | **2.30**  
Gina Koczberski (Curtin University), George N. Curry (Curtin University), Veronica Bue (PNG Unitech), Emmanuel Germis & Steven Nake (PNG Oil Palm Association), Paul Nelson (JCU, Cairns)  
Adapting to Land Shortages for Food Gardening: A Case Study from Papua New Guinea |
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| 2.45   | **Jennifer Hamilton (NYU)**  
Living with the Trouble: The Value of Multi-Species Labour at Earlwood Farm | Critical Linkages of Development, Food security and Livelihoods in Lao People's Democratic Republic:  
Yayoi Fujita Lagerqvist (University of Sydney [USyD]), Sithong Thongmanivong (National University of Laos[NU]), Michael Dibley (USyD), Jessica Hall (USyD), Somphou Sayasone (National Institute of Public Health, Laos), Slinthone Sacklokham (NUL), Natalia Scurrah (USyD), Philip Hirsch (USyD), Khamla Phanvilay (NUL) |
| 3.00   | Session Q&A                                                                 | Session Q&A                                                                 |
| 3.15   | Close, Agri-Bagry Awards                                                    |                                                                             |
LIST OF ABSTRACTS

**Monday 10.50 – 12.25**

**Room 1: Session: Trade, Value Chains and Nutrition**

Anne Marie Thow (University of Sydney), David Sanders, Eliza Drury, Thandi Pucane, Syeda Nafisa Chowdhury, Lungiswa Tsolekile, Joel Negin.

**Importing obesity: implications of regional trade for NCD prevention policy in Southern Africa**

The World Health Organization’s Global Action Plan for the Prevention and Control of Non-Communicable Diseases (NCDs) highlights the urgent need for action to prevent the growing burden of NCDs. A multilateral approach that includes the food supply and trade is critical to stem the increase in diet-related NCDs. The Southern African Development Community (SADC) has experienced significant trade and economic liberalization over the past decade; at the same time, the nutrition transition has progressed rapidly in the region. This analysis considers the relationship between trade liberalization and changes in the food environment associated with poor diets and NCDs, with the aim of identifying feasible and pro-active policy responses to support healthy diets. We documented changes in trade and investment policy for the SADC, and compared them with time-series graphs of import, production and availability data to assess changes in food imports and food availability in relation to trade and investment liberalization. Our analysis focusses on regional trade flows. In the Southern African Development Community (SADC) countries, and also the major source of growing investment in food processing, food retail and ‘fast food’ outlets in other SADC countries. At the same time, imports of processed foods and soft drinks from outside the region – largely from Asia and the Middle-East – are increasing at a dramatic rate. Regional policy action to stem the flood of high calorie and nutrient-poor processed foods, snacks and beverages into the region can support efforts to proactively reduce the emerging burden of obesity and diet-related NCDs. This analysis suggests that a regional approach to food policy within Southern Africa would strengthen NCD prevention in the region, by increasing the capacity of SADC countries to implement strong policies for prevention and resist pressure from trading partners.

Jennifer Lacy-Nichols (University of Melbourne).

**Corporate Responses to Health Concerns about Sweetened Beverages**

Public health researchers increasingly blame the corporatisation of the food system for obesity, diabetes, and other chronic health problems. Sugar and sweetened beverages in particular are the targets of public health and regulatory actions. This growing public concern around the health ramifications of sweetened beverage consumption has prompted corporations to develop healthy product lines, design public health advertising campaigns, and partner with public health organizations. These corporate responses have far reaching implications for consumers, alternative food movements and public health policy. My research focuses on four areas of corporate activity: scientific research, product reformulation, advertising and policy development. In this paper, I examine Coca-Cola’s Coke Life product reformulation and Coming Together advertising campaign as examples of this corporate response. Coca-Cola offers a highly visible case study of how corporations respond to health concerns and how different stakeholders view their response.

Gyorgy Scrinis (University of Melbourne).

**‘Big Food’ Corporations’ Strategies for Producing and Marketing Healthier Food Products**

In the context of concerns over the contribution of processed foods to poor public health outcomes in the North and South, and the consequent threat of government regulation, food and beverage corporations are responding by changing or reformulating their products to be ‘healthier’. This paper will identify, categorise and examine the various strategies these corporations are developing to re-design and market their products, with a focus on the practices of two of the world’s largest food corporations, Nestle and Pepsico. This includes reducing the content of some ‘bad’ nutrients and food components, emphasising whole and ‘natural’ ingredients, the use of nutrient-content and health claims, and tailoring different marketing strategies to rich and poor consumers. These practices and products will be related to distinct nutritional paradigms (or forms of nutritionism) that coexist in the contemporary nutriscape. Existing and proposed policy approaches for regulating corporate practices and products will also be examined.

Midori Hiraga (presenter) (Kyoto University, Japan) & Shuji Hisano (Kyoto University, Japan).

**Restructuring Vegetable Oil Supply and Demand in Asia under Food Regimes: A Preceding Example of Japan to Be Compared with Rapid Increase of Vegetable Oil Availability in Asian Countries**

The global availability of modern vegetable oils has been increasing with state support into the 1980s, and trade liberalisation in the 1990s. Asian countries have rapidly increased vegetable oil availability in last few decades. China and India transformed from mostly self-sufficient countries of vegetable oils before the mid-1990s into the global leading importers of vegetable oil and oil crops today. This research employs the food regime frameworks (starting with Friedmann and McMichael, 1989) to study the historical development of global vegetable oils, especially soybean oil and palm oil, and argues that significant dissemination of modern vegetable oils began as non-food use to support industrial development of colonial countries in the First Food Regime, then their production and consumption were expanded with the active support of nation-states in the Second Food Regime. The research first historically examines how the Japanese colonial force made soybean the global commodity in the First Food Regime, triggered by fertilizer demand for modernising its agriculture. Then, soybean production was promoted by nation-state of the USA during WW2, and vegetable oil consumption was promoted in post-WW2 Japan especially with the US Food Aid. Trade liberalisation, deregulation in foreign investment, and development of domestic food industries, like instant noodle, based on cheap and abundant oils facilitated increase of fat intake among Japanese nation. In the Global Corporate Food Regime of today (McMichael, 2005), now established Japanese food companies have been expanding abroad, especially in Asian countries. This Japanese preceding example provides a good comparison suggesting the similar trade liberalisation and food industry development, together with deregulation in foreign investment, have been shaping oil-consuming food environment in other Asian countries in recent years. Recent neoliberal trade liberalisation, especially direct foreign investment and corporatisation, are suspected to be facilitating (re)structuring of supply chains of...
vegetable oils with development of food industry based on imported vegetable oil and oil crops, like building large-scale oilseed crushing facilities or developing instant noodle industry in China. The increased availability of oils and fats, and the concurrent change in diet toward higher-fat, lower-carbohydrate, more processed food, can jeopardise the public health among Asian nations, as cheap oils are considered to be forerunner of nutrition transition, which enable even poor nations to have access to a relatively high-fat diet (Drewnowski and Popkin, 1997). The conclusion suggests that modern global vegetable oils that are solvent-extracted and highly refined, mainly soybean oil and palm oil, are not only increasing fat intake among Asian nations but also replacing manually-pressed unrefined oils squeezed from variety of local oil crops in Asian countries. The study also suggests that the capitals accumulated in the first and second food regimes, including Japanese and other Asian, are active in this global vegetable oil complex under the Global Corporate Food Regime.

Bill Pritchard (University of Sydney), Jane Dixon (Australian National University), Chetan Choithani (University of Sydney) & Lizzie Hull (School of Oriental & Asian Studies, University of London, UK)

"I am not willing to negotiate livelihood security". Do recent food policy initiatives by India, South Africa and Brazil constitute a new food regime?

In the past few years, India, South Africa and Brazil have begun to re-compose their engagements with the global agri-food system in ways that provide more space for state-supported livelihood security of their poor populations. These developments have been widely discussed in certain literatures, and in UN agency and regional multi-lateral associations, but to date have not caught the imagination of agri-food theorists. The principle element of the emergent politics of food in India, South Africa and Brazil is the development of rights-based food policies, undergirded by extensive social protection initiatives, and the more forthright assertion of food security arguments as core strategies at the WTO. Occurring at a time when the BRICs are rising in international economic importance, these initiatives represent an influential shift in the regulatory architecture of the global food system. Indeed, we see these developments as the constituent of the new food regime?

Cinzia Piatto and Chris Rosin (University of Otago).

Beyond alternative/conventional: Māori Worlds of Food?

Within popular understanding of the food crisis, the global food system is often perceived on the basis of a clear differentiation between ‘alternative’ and ‘conventional’. These two constructs generally distinguish between means of provisioning and consuming food according to narrow and readily measured economic, social and ecological criteria. This categorisation results in a strict dichotomy represented by antipodal views and explicit characterizations of value – what in terms of convention theory would be organized within orders of worth. In fact, the reframing of popular understandings of the food crisis require a more open engagement with food (its production and consumption) that recognizes the diverse sites of action at which change can be enacted and realized. Such an approach sees continuity from mainstream activities to the small individual, independent and value-oriented ones. This paper uses the theo retical framework of regimes of justifications from convention theory (Boltanski and Thevenot 1986, 2005) to question whether we can elaborate a Māori world of worth in order to demonstrate the potential for marginal economies (Gibson-Graham 1996, 2006) to reframe popular understandings of food and society. Within the New Zealand context, there has been some ferment around Māori groups -a minority whose culture is based on the concept of sustainability as a cornerstone- who recently implemented economic activities around a western-values frame in terms of economic organization. Using two case studies, both expressions of the Māori community but with two different approaches in terms of strategies, a reflection is presented on community organization, food systems innovation and the role of market in food relations.

Jessica Hutchings (Te Waka Kai Ora, National Maori Organics Authority of Aotearoa).

Hua Parakore a Māori food sovereignty initiative

The triple crisis of food insecurity, peak oil and climate change require radical interventions from indigenous communities to ensure a food secure and sovereign future. Hua Parakore is a Māori indigenous food sovereignty initiative and hallmark of excellence that seeks to optimise indigenous wellbeing by providing both commercial and non-commercial pathways for Hua Parakore verified products that are chemical, pesticide, nano and GE free. Hua Parakore is a Māori cultural response to a food secure future. Driven by Te Waka Kai Ora (National Māori Organics Authority of Aotearoa) Hua Parakore is the realisation of a three year community driven kaupapa Māori research project. Some of the practices of Hua Parakore include; indigenous based verification, community outreach, workshops, wānanga and seed saving. It is an example of indigenous action taking and transformation enhanced through indigenous development research that seeks to optimise indigenous economic wellbeing. This paper traces the needs and issues of both Māori growers and whānau for a verification system that tells a distinctively indigenous food story both for a commercial market and for a food secure future for whānau (Māori families and communities).

Monday 10.50 – 12.25
Room 2: Session: Traditional food systems, agro-biodiversity and food security

Sarah Wright (University of Newcastle) with SARD, Kenya.

People-led food systems: We dance with what we have.

In this paper, I will discuss the results of a collaborative research project undertaken with farmers, forest dwellers and pastoralists involved in a movement of people-led development in the Great Rift Valley in Kenya. Specifically, I draw on interviews with 290 members of the farmers’ network SARD, Sustainable Agriculture Rural Development from Tembo, Marigat, Kuresoi and Naivasha districts. I will reflect on the concerns, successes and insights of the network’s participants as they work to develop their own people-led food systems within a wider framework of people-led development. This work aims to contribute to a polyvocal understanding of food and food security that acknowledges the diverse, more sustainable, ways of being that do exist.
Indigenous knowledge relative to food systems for Maori in New Zealand has been constantly eroded since the period of colonisation through both economic and social factors. In the pre-European period Maori had a diverse indigenous approach to food sources including both cultivated and uncultivated plants, forest fauna and fish. New Zealand is a country with a very diverse range of ecosystems and capricious climate. Of recent years there has been a resurgent interest in traditional practises and the associated knowledge aligned to food systems. As a consequence we have been working on elucidating traditional knowledge from its many and varied repositories and translating it for availability to a contemporary community of interest. ‘Rauwaru’ is a noun in Maori which literally means ‘100 scrapings’ and refers to that proverbial garden where food was plentiful. It is used metaphorically as the title for a book on traditional plant-root food choices which is one of a planned book series and introduces the types of knowledge around native flora and cultural use.

Margaret Forster (Massey University).

**Water Security and Indigenous Agency in Aotearoa New Zealand**

The future of the Agri-Food sector is heavily dependent on water security. In Aotearoa New Zealand this issue is being addressed through water reforms underpinned by a sustainability agenda. This presentation explores how Māori water rights and interests intersect with the water reforms debate. A key focus is the emergence of inclusive governance models and the impact these new approaches are having on indigenous authority over tribal territory particularly guardianship over natural resources, and opportunities for reviving customary food systems. Drawing on activities in the Manawatū region of the North Island, Aotearoa New Zealand, this presentation will explore the link between water governance and efforts to create a greater presence for Māori heritage and indigenous biodiversity along the Manawatū River.

**Monday 24 November 13.35 - 15.35**

**Room 1 Session: Biogovernance**

Brian Jones (University of Sydney).

**GMOS, synthetic biology and 3D printed food: technological dystopia or savior?**

Ten thousand years ago we hit on the idea of agriculture as a better way to feed a growing population. Clearly, an innovation that has supported our ever-growing domination of the globe, this year marks two anniversaries of a long line of ‘tweaks’ to the system, the 20th anniversary of the first appearance of ‘genetically engineered’ food on our market shelves and the 100th anniversary of the birth of Norman Borlaug, the ‘father of the Green Revolution’. These anniversaries remind us that in the background, scientists and others are working away on ideas for how we might ‘better’ feed ourselves. While the first GMO, the Flavr Savr tomato, only lasted 3 years on supermarket shelves, over half the global production of some of our most important crops are now GM, and the foods derived from them have found their way through to our tables, whether we recognize it or not. The buzz of a neo-Malthusian nightmare of food shortages as growing populations and climate change coincide is driving an ongoing push for even greater use of technologies in food production, but at the same time a push back against some technologies is, if anything, growing. This presentation will discuss some emerging technologies and examine why there appears to be a growing trust deficit between producers and consumers.

Vaughan Higgins (Charles Sturt University), Melanie Bryant (Swinburne University of Technology), Marta Hernandez-Jover (Charles Sturt University), Luzia Rast (Charles Sturt University), Connar McShane (James Cook University).

**Competing Institutional Logics and the Challenges of Biosecurity Governance in Australia**

Biological invasions – the spread and establishment of organisms beyond their natural ranges – are becoming increasingly frequent with damaging and potentially catastrophic consequences for agri-food production. In order to minimise the harm from biological invasions and the spread of exotic pests and diseases, biosecurity has become an established policy concern involving governance structures at international, national and sub-national levels. Social science research in the last 15 years has drawn attention to the significance of social and cultural factors in disease control strategies. However, little scrutiny has so far been given to the actors responsible for developing, coordinating and rolling out biosecurity programmes to farmers, including the organisational issues and challenges that influence how national biosecurity policies and programmes are implemented at a sub-national level. In this paper, we draw upon an institutionalist approach to examine (a) the tensions and challenges involved in efforts to coordinate post-border biosecurity amongst multiple governance agencies and organisations; and (b) the prospective consequences of these challenges for farmer engagement in, and adoption of, recommended biosecurity practices. Through the analysis of existing policy documents and reports, as well as data from 18 semi-structured interviews with government and industry stakeholders (Commonwealth, Queensland and NSW), we argue that organisational change and competing organisational objectives are key challenges to improved coordination in biosecurity governance. Our data provides insights into issues such as lack of resources, intra- and inter-agency communication problems, poor communication between government and industry organisations, and lack of knowledge about biosecurity governance in neighbouring states. We contend that these issues impact on Australian government efforts to move towards a more consistent and coordinated approach to biosecurity governance, and they create problems for farmers tasked with making sense of biosecurity information.

Lileko Lishomwa (Graham Centre for Agricultural Innovation, Charles Sturt University).

**Incidental biosecurity: The role of farmers’ knowledge and practices in managing pest, weed and disease risk**

The objective of the Australian governments, much like that of the NZ government, is to prevent the exotic unknowns; however, farmers who manage the land post-border are currently more focused on addressing endemic pests, weeds and diseases. The concerns over the potentially vulnerable agri-food system are founded on the grave economic implications of an unwanted incursion, which may result in a significant loss to market access as demonstrated by a plethora of disastrous overseas livestock-epidemics. Farmers’ are the vanguard of biosecurity as they are the first people likely to notice pest, weed and disease changes. However, biosecurity studies widely assume that farmers are not interested in biosecurity, based on low rates
of adoption for biosecurity programs and low rates of disease reporting. These findings suggest that farmers need education on the recommended pest, weed and disease practices. The aim of this research was to investigate the current biosecurity knowledge and practices of a group of purposely selected Riverina sheep farmers, utilizing semi-structured interviews. Contrary to the literature, this research found that the farmers are, in fact, implementing many on-farm pest, weed and disease management practices. However, it appears that governments and farmers have differing definitions of biosecurity, which has led to a misconception of farmers disregarding governments’ biosecurity recommendations. Furthermore, farmers’ knowledge and practices are often overlooked by governments, who are increasingly regulating post-border management. During thematic analysis, it was discovered that farmers’ motivations for implementing practices stem from financial viability and localised notions of good farming, rather than biosecurity purposes. However, it is argued that the on-farm biosecurity practices of the farmers studied predominately align with the governments’ recommendations, which are best captured by the term ‘incidental biosecurity’. The findings of this study may be useful to policy makers, since the importance of on-farm incidental biosecurity practices, and the farmers’ role in implementing them, are inherent in the desire to maintain Australia’s food security.

Gareth Enticott (Cardiff University) and Vaughan Higgins (Charles Sturt University).

Maps, Mapping and the Governance of Animal Disease

Boundaries and borders are a long-standing focus of attention in the social science literature on biosecurity. In the literature on the management of plant and animal diseases, boundaries may be conceptual, material or territorial and enacted and maintained by different technologies and practices. Despite the attention paid to the production and surveillance of boundaries, there has been relatively little scholarly interest in the role of maps and mapping as a technology of governing in national and sub-national government biosecurity strategies. As work across a range of geographical fields has shown, maps and mapping practices are crucial in enacting, dividing and contesting space. This paper seeks to bring theoretical perspectives on maps and mapping to this growing area of geographical research. Firstly, we explore how maps are put to use as forms of risk communication to manage animal disease. Secondly, we examine how maps are used to enact and maintain distinctions/boundaries between ‘unruly’ diseased spaces and biosecure spaces. Thirdly, we explore how in practice, the role of maps as seemingly secure and settled spatial representations become unsettled, thereby directing attention to the practices that make maps possible (and contribute to their remaking). To explore these issues, the paper draws on two case studies of disease management: Bovine Johnes Disease in Australia and Bovine Tuberculosis in the United Kingdom.

Michelle Young (Murray-Darling Basin Authority & Australian National University).

Options for theorizing Biodiversity and food production

For more than a decade Agrifood theorists have been calling for frameworks and theories that engage analytically with “the materiality of nature”. In the context of thinking about food system change and sustainability - there is also increasing focus being given to the impacts of agricultural production on biodiversity. To understand and respond to these impacts requires understanding of the interaction between human and natural systems. For this purpose how we theorise nature is critical to our capacity to understand how we can make and evaluate changes to more sustainable food systems. While the economic value and conservation potential for using wild foods in food chains is more marginal to the food baskets of western societies, it is still highly relevant for many parts of the world, including Australia. It can be argued that the absence of engagement with wild food or the concept of sustainable in the Agrifood literature is related to how nature has been framed by biopolitical movements and researchers studying them. To address the gap I have explored the value of the frameworks provided for mapping the social with the ecological in food systems by SYAL studies “Systèmes Agroalimentaires Localisés” (SYAL). The SYAL is both a group of agro-food activities that are “territorially established” and an approach to handling the development of local resources which offers the opportunity to explore the historically produced discourses relating to biodiversity and food.

Monday 24 November 13.35 - 15.35
Room 2, Session: Food in the City

Alison Rothwell (University of Western Sydney).

Feeding and housing the urban population: multifunctional peri-urban land use for environmental impact optimisation

With future population growth forecast to occur in urban areas, achieving a better understanding of resilience and sustainable urban development is required in order to counter potential increased environmental degradation. Early action supporting mitigation is emphasised to avoid or minimise developments that could otherwise lock society into emissions intensive pathways. Creating multifunctional urban landscapes that provision both food and housing at lower relative environmental impacts is emerging as a
Environmental studies investigating continued provision of fresh perishable food to a city following displacement of horticulture to some more remote location due to peri-urbanisation are sparse. Exploration of environmental trade-offs for alternative multifunctional peri-urban (PU) land use options where housing, food, and co-benefits such as afforestation may be provisioned are under-reported. This paper presents a method under which environmental impacts associated with the decision to urbanise horticultural land have been operationalised. Scenarios providing equivalent quantities of fresh food and housing of population using one hectare of PU land were compared for a developed city (Sydney). Multifunctional land-use options explored within the scenarios included those providing co-benefits such as urban afforestation. Three scenarios were explored: greenfield housing with displaced field production (lettuce); infill housing with retained field production; and infill housing with alternative food production technology (HTG) and afforestation. Integration of housing and horticultural environmental impacts were assessed using life cycle assessment (LCA). Including both the change in urban housing combined with the induced change in food production within a comprehensive framework is a novel application of LCA. PU and remote field farm production and a PU high technology greenhouse were included within the horticultural system (cradle to Sydney central market). Housing included both greenfield and infill systems (construction, operation and transportation). Environmental impacts examined included climate change, freshwater eutrophication, photochemical oxidant formation, human toxicity, particulate matter and water scarcity. Sensitivity to a renewable energy target of 20 percent for urban operational and transportation energy reduced climate change impacts by 13 and 15 percent. Energy reduced climate change impacts by 13 and 15 percent. However, such as afforestation can be achieved with lower relative impacts as if you were reading it naturally.

Liesel Spencer (School of Law, University of Western Sydney).

Suburban Agrarian: Law and Policy for an Alternative City Food System

The current Australian urban food supply system adversely impacts the health of urban populations and the environmental health of the land on which food is produced. Australia is one of the world’s most urbanised nations. A distinguishing feature of Australian urban geography, is the extent of our suburbanisation. The dispersal of the population in rings of car-dependent, sprawled out suburbs around the urban core is a problem for both human and environmental health. This paper proposes that, (borrow from Bill Mollison’s writing on permaculture), ‘the problem is the solution’. Sprawl means lower density, which means a patchwork of land is left around the built environment. If that land is put to agricultural use then the problem becomes a potential solution. The challenge for law and policy makers is to devise food system strategies which are specifically adapted to suburban as a form of human settlement.

Thorin Beowulf (University of Sydney).

Motivations for engaging in urban agriculture in Sydney

This paper investigates what motivates and influences people to engage in urban agriculture in Sydney’s Inner West suburbs. Recently, there has been growing attention in geographic research given to urban agriculture, though much of this focuses on developing countries and strategies to assist in poverty alleviation and development, or in developed countries (mostly regarding the USA and Europe) and the effects of community gardens on the sustainability of urban environments, and on food and environmental

Ian Sinclair (University of Sydney).

Growing Food in a Residential Landscape

The peri-urban areas of Australia are significant food growing areas – particularly for perishable vegetables, fruit and poultry. Analysis of the ABS Agricultural census for 2008-09 shows that approximately three quarters of the perishable vegetables grown in Australia are grown in the peri-urban areas and coastal alluvial plains in Queensland. These multi-functional landscapes are made up of productive rural lands and significant environmental areas but the land use is dominated by rural residential development. Rural residential development makes up a large proportion of the land use in these areas. Land use surveys have shown that this is more than 60%. The people living in these landscapes do so in estates (which has been called rural fringe) as well as scattered throughout the rural landscape (rural living). They live on lots of ranging in size from 4,000 m2 to 100 ha. Analysis has been done of the demography of the peri-urban and coastal alluvial plain LGAs using the ABS census of population and housing and comparing it with the urban areas. The results of this are that the people living in these rural areas have an urban demographic make-up. There are also more people in the working age than in the urban areas and less over 65 years of age. The workforce is made up of similar jobs to the urban areas, which means that they will leave property each day. There are also more people with children living in the peri-urban areas than the urban areas. More people work from home than in the urban areas. The issues that confront planners are complex and specific to the multi-functional make-up of the landscape. These issues will be explored in the presentation.
justice. Building off research by Larder, Lyons and Woolcock (2014), their four motivations for backyard gardening in Brisbane (food sovereignty, sustainability, community building, and cultural influences) provide an institutional framework for analysing individual motivations. However, after undergoing qualitative research in Sydney, I have concluded that this framework does not take into account other significant influences, such as mental health, or the retreat from “city culture”. Using political ecology as a platform for understanding how these motivations interact with institutions governing urban metabolism, the interaction between institutions, and the different scales these interactions occur, a more pluralistic approach to understanding the individual motivations of urban gardeners is created.

Valentine Cadieux (University of Minnesota, USA).

Modern Urban Farmland: Public agriculture, the right to food, and the conspicuous justification of food values in relation to control of land

Across North America, many local instantiations of the contemporary food movement express a strong interest in access to land for food production. As food justice becomes a prevalent theme in food movement discourse, this focus increasingly includes attention to public access to land, as well as access to public land for livelihood purposes. Both of these practices contest traditional understandings of farmland and also of the “highest and best use” tenet that plays a significant role in the governing of land valuation. In this presentation, I explore the ways that a community agricultural land trust in the U.S. Upper Midwest is contesting the conventional role of farmland in the agrifood system. I consider how the understandings of agrifood and land values function in this case across a range of scales, from the dynamics of agroecosystems to global agrifood regimes, particularly as these are used to justify proposed transformation s in the definition and governance of farmland. The metropolitan region of Minneapolis and St. Paul sits at the nexus of many complex food justice issues—it is both the home of many global agrifood regime hyperactors (such as Cargill, ADM, and General Mills) and is also the site of sustained attention to the food-related traumas of dispossessed indigenous peoples, migrant and immigrant food workers (often Latino/a), African and African-American migrants, and the Hmong communities that produce a conspicuous majority of the produce sold at local green markets. Consequently, negotiations over the rules that govern access to farmland (such as restrictions on urban livestock or composting, livelihood-based community gardening, or urban agricultural tax rates) encompass both anticolonial attempts to heal historical traumas around food and land and also defenses of the current productivist feedcrop agribusiness model underpinning current trends in contemporary farmland inve stment and landgrabbing. I explore the way that engagement with local foodland governance in this case grapples with broadly relevant questions of the public benefits associated with the protection of farmland (benefits for which publics? defined how and by whom?), farmland access and succession, urban-rural relationships as acted out through land, tensions between neoliberal devolution and state involvement in farmland management, and how to deal with the “too little too late” problem of alliance building in contested contexts. I also revisit parallel case study research from Christchurch (Aotearoa New Zealand) between 2003 and 2013, and from Toronto (Canada) between 1955 and 2005 to consider some methodological questions involved in studying foodland access dynamics across time and space.

Damien Balzer, Therese McGillion, Alex Ilijdica and Joanna Baker (Youth Food Movement & University of Western Sydney).

The Youth Food Movement Promoting Food Literacy in Greater Western Sydney

Food systems are under increasing pressure from climate change, conflict, environmental disaster and growing demand for biofuel. A food secure future for all will require strong markets for produce delivered via sustainable, efficient and healthy food systems. Such markets will only be achieved through consumer education. An encouraging development is the recent emergence of Youth Food Movement (YFM) in Australia. This organisation promotes food literacy in young adults to increase awareness of the bidirectional health relationship between farmers and consumers. YFM unites youth in their concerns around food. The organisation provides young adults with direction and a collective voice on decisions affecting the sustainable future of food. Through innovative networks, YFM builds understanding about the social values of food and empowers young adults to become active consumers. The Greater Western Sydney (GWS) region is comprised of 14 local government areas: Auburn, Bankstown, Blacktown, Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Holroyd, Liverpool, Parramatta, Penrith and Wollondilly. This culturally rich region is home to more than 160 nations, with almost one-third of residents born overseas. Some significant challenges for GWS include economic disadvantage, lower levels of educational attainment, and higher unemployment rates than the Sydney average. These challenges contribute to food insecurity. YFM and the University of Western Sydney (UWS) are building a new relationship to establish a student-led program to educate consumers in GWS. This initiative represents the first university chapter for YFM. The partnership leverages established community trust in the university. Academic expertise and a multi-campus spread lend additional support. A three-phase plan for implementation of a UWS–YFM chapter has been drafted, covering: ‘The need for YFM and food literacy’, ‘Empowering change’, and ‘Revolutionising food habits’. Using a work-integrated learning approach, students will participate in design and delivery of future community education programs.

Monday 24 November 15-45 – 16.40
Room 1, Session: Rural Place

Assembling Rural Place in Agri-food Globalization

This paper is concerned with understanding the dynamics and impacts of agri-food globalization for specific localities within the emergent global countryside. Building on broader political-economy accounts of agri-food globalization, it focuses in on questions about how localities are enrolled into transnational networks, what dynamics and actions within the global agri-food system have particular reverberations for specific localities, and how such reverberations affect change in the socio-economic composition and trajectories of individual localities. To pursue these questions, the paper draws on the framework of Assemblage Theory as developed by Manuel de Landa, examining both agri-food networks and localities as assemblages of material and expressive components and characterized by processes of territorialization and deterritorialization and coding and de-coding. This approach highlights the micro-dynamics through which globalization proceed, as illustrated in the paper through a case study of the sugar industry in Nambour, Queensland. In particular, the paper takes the closure of the Moreton Sugar Mill in Nambour in 2003 as both...
Rethinking Geographical Indications of Origin: Regional economic potential or pandering to protectionism?

Geographical Indications of Origin (GI) are a form of intellectual property rights, where a place-name or sign is used on certain products that originate in a specific geographical location (e.g. a town, region, or country). The use of a GI indicates that the product has particular qualities; is made according to traditional method; and/or enjoys a certain reputation due to its geographical origin. Presently, the EU is the dominant holder of protected GIs and the EU asserts that they are used extensively and effectively in EU countries as a rural and regional development tool. To date, Australia’s response to GIs has largely been driven by perceptions of their impact upon international trade gains and losses. Currently, Australia only has legal protection for wine-related GIs because of a wine-specific international agreement with the EU, and generally holds a negative attitude toward further extending GI protection beyond current TRIPS requirements. Given the accepted European position that GIs contribute significantly to regional economic wellbeing, our research examines whether GIs (in some form, but not necessarily directly replicating European models) may have potential in supporting Australian rural and regional economic development through regional value-adding of agrifood production. We consider whether Australia should more deeply explore a special regime for the legal protection of GIs in relation to agricultural products and foodstuffs other than wine. This paper presents findings of national research undertaken between 2011-2014 in relation to these questions. The research is based upon interviews conducted with respondents across Australia representative of value chain sectors (including producers, wholesalers, processors, distributors, retailers) spanning multiple industries. Respondents also included federal and state agrifood production and trade agencies, industry peak bodies and support groups; and regional economic development agencies.

Monday 24 November, 15-45 – 16.40
Room 2, Session: Agricultural Innovation and Trust

Rebecca Cross (University of Sydney), Peter Ampt (University of Sydney).

Eco-innovators and agri-cultural change: pasture croppers and strategic graziers

The future of farming in Australia requires the integration of production and conservation, via eco-innovation, for sustainable farming systems to be realised. This paper discusses the role of ‘eco-innovators’ in revitalising and regenerating farmscapes and farming traditions by using native grasses for production. Eco-innovators were self and peer identified across NSW and were proponents of Holistic Management, Grazing for Profit, and Biodynamics, as well as other farmer-driven movements. These innovators were championing certain integrative practices, including regeneration of native grasses, adaptive/strategic grazing, and pasture cropping/no-kill cropping. A micro-ethnographic study was conducted to document the journeys of these innovators from ‘conventional’ farming systems to regenerative farming systems. Their journeys were shaped major transitions in management and practice, as well as emotional, psychological and philosophical changes. Eco-innovators also discussed the socio-cultural, economic and environmental benefits of their current farming practices, and the role that irrationality, intuition and creativity played in their transformations. An innovator benchmarking study conducted by Dr Peter Ampt provided some of the first evidence that showed these farmers were having a positive impact on the functionality of their farmscapes. In most cases, these innovators were part of a network, or community of practice, of other innovators, consultants and independent scientists. This community of practice is a prime example of farmer-to-farmer innovation brokering and knowledge sharing, and in some cases, crosses national borders. In tandem with the regeneration of the land, this community is also experiencing a revitalisation of their passion for farming and farming traditions of the farming sub-culture, including succession planning and a strong sense of active stewardship. The research/practitioner or extensionist/landholder partnership is essential to achieving sustainable agriculture; however in many cases ‘expert knowledge’ trumps and/or (re)frames ‘farming knowledge’ as inferior science. To strengthen this partnership, an adaptive framework which utilises formal and informal processes of interaction is proposed to bridge the gap between ‘natural scientists’ (experimenting farmers) and ‘book scientists’ (academic researchers). This would enable productive use of innovative local land management knowledge. Eco-innovators who are achieving results are a valuable resource for both researchers and extension professionals and have a vital role to play in motivating and supporting widespread practice change.
Bruce Small (AgResearch Ltd, presenting author), Pike Brown (Landcare Research) & Oscar Montes de Oca (AgResearch Ltd).

Values, trust and management in NZ agriculture

We present empirical evidence of the link between outlook and practice among farmers, foresters, and growers in New Zealand. Specifically, we use a large, nationally representative survey to assess how foci on production and environmental outcomes influence the adoption of six good management practices. We then show that while environmentally oriented and production-oriented decision makers are statistically more prepared to take risks, all rural decision makers are more likely to adopt good practices after seeing new technologies and practices successfully demonstrated. Next, we demonstrate that social and professional networks are small, often limited to five or fewer operators, which begs the question about how risk-averse operators who rely on demonstration can be convinced to adopt good practice. Hence, we ultimately analyse trust in order to identify other potential demonstrators. We find that veterinarians are the most trusted source of information and that government (at all levels) is the least.

Robin Stonecash (University of Sydney), Peter Ampt (University of Sydney), Rebecca Cross (University of Sydney).

Debts, land value, farm credit and eco-innovators

There is an emerging community of farming practice that is growing natural capital through eco-innovations that require less capital input because ‘nature does more of the work’. This community is optimistic and highly motivated by the response of their landscape to their changed management. They report increased profitability AND reduced exposure to risk which leads to improved quality of life. With a growing segment of consumers paying attention to the way their food is produced, these eco-innovators are likely to be able to gain market advantage. However, the rate of adoption of these apparently win-win strategies is low for a range of possible reasons. These practices go against conventional wisdom and a paucity of data generates skepticism, critically from credit suppliers. Capital investment in water and wire is required to eco-innovate but lenders are more used to providing credit for conventional inputs such as crop establishment costs and machinery. The payoff period is longer and the value of increased natural capital in soil carbon and perennial grasses is not currently recognised in the market value of land. This occurs in the context of increasing farm debt which is only bearable because of increased land values which have kept the debt to asset ratio relatively constant. As a result farmers and banks are highly sensitive to changes in land values. This sensitivity can be reduced by studying the eco-innovators more intensively, and translating the language of natural capital into financial language that banks and investors will understand. Various valuation methodologies have been developed around the world, but there is no one standard accepted practice. This talk will describe the eco-innovators and the impact of their practices, and explore methodologies for valuing national capital and why financial institutions are reluctant to embrace them.

Tuesday 25 November, 09.00 – 10.30
Room 1, Session: Analysis of a Political Project – Food Sovereignty Part I

Alison Henderson (University of Waikato) & Lee Edwards (University of Leeds, UK).

Re-storying Fair Trade: Food sovereignty and ethical consumption

In this paper, we argue that as Fair Trade moves further from its social movement origins into mainstream food distribution systems, issues of food sovereignty and sustainable, agro-ecological, locally-based production become distant narratives. The growth of the mainstream Fair Trade market has facilitated a new kind of Fair Trade consumer and made the consumption of Fairtrade goods a less political, less ideologically-driven act. The ‘ethical consumer’ may consume with a social conscience, but such individual acts of consumption negate the need to avow political beliefs or engage with collective action about food sovereignty. By disconnecting consumers from actual conditions of production and the lives of producer communities, the marketing of mainstream Fair Trade reinforces the role of mass consumption as a tool for change and reifies the binary between consumers in the global North and producers in the global South. Current research tends to focus on this polarisation of the political and economic bases of Fair Trade’s existence, and intervention in global trade patterns; in the process, the fundamentally communicative nature of the connection between producer and consumer that is paramount to food sovereignty has become marginalised. We argue that communication perspectives of Fair Trade and food sovereignty can make an important contribution to current research on two levels. First, discourse-based analyses of Fair Trade narratives and information flows introduce a nuanced understanding of the challenges facing the movement, in the context of its pursuit of social justice and alternative trade possibilities for food producers in the global South. Second, communication perspectives of food sovereignty and ethical consumption can illustrate the ways that changing discourses can re-articulate the potential for social transformation and create space for new social economic movements to foster political action within the market.

Rebecca Duell (Griffith University).

On the transformational potential of ‘local food’: insights for social justice and sustainability

Eating ‘local’ is often promoted as a key strategy for ensuring social and ecological sustainability in contemporary food and agricultural systems. The transformational rather than incremental change necessary for realising sustainability in these systems is reliant on mitigating social inequality, which limits people’s ability to participate in process-based sustainability strategies. Therefore, it is important to better understand how local food initiatives may act as social change mechanisms and pathways for food system transformation. With a conceptual focus on the intersection between social sustainability, consumption, and social justice in the food system, this paper explores how local food initiatives in South East Queensland work to create the social conditions required for transformation. Drawing on in-depth interviews with local food practitioners, I discuss the rationale and methods employed by this diverse range of groups aiming to improve local food access. I explain how practitioners understand and envisage the role of ordinary people as ‘eaters’ in processes of social change, the ways that they attempt to broaden the appeal of eating local food, and the challenges they face in doing so.
Sean Connelly (Otago University). 
**Our Food Network Dunedin: Alternative food initiative or alternative food movement?**

In August 2013, the 2nd Dunedin Local Food Forum brought local food enthusiasts and activists, home and community gardeners and small to medium commercial growers, food distributors, academics and welfare agencies together to discuss the challenges and opportunities in working together to further support the local food system. One of the key outcomes of the forum was the stated need to bring the diversity of local food activities together as a more powerful force for food system transformation. That led to the development of Our Food Network Dunedin - a loosely knit organization of individuals and organizations that share a goal of stimulating the production, distribution and consumption of local food and in that way contributes to the building of a resilient and prosperous community. Using Our Food Network as a case study, this research seeks to explore the challenges, opportunities, tensions and contradictions inherent in an emerging alternative food network in the context of a national economy closely tied to productivist agriculture. Drawing on responses to a local food survey, the research examines the conflicting views, values and approaches of individuals committed to local food initiatives to highlight the difficulties in navigating the divide between radical and reformist approaches to alternative food networks and also to identify the opportunities that result from using food as a lens to address a range of urban issues.

Travis M. Bartosh (University of Waikato). 
**New Zealand Farmers’ Markets Communicative Engagement in the Local and the Global**

This paper examines the ways in which New Zealand farmers’ markets communicatively engage with both local and global processes, and is a preliminary analysis of my doctoral fieldwork. Although farmers’ markets may at first appear to be a locally contained phenomenon, interviews with organisational members of New Zealand farmers’ markets show that these markets engage at both local and global levels. The interviews, analysed through a Bakhtinian dialectical framework, show that farmers’ markets communicate Local<-->Global dialectical engagement in several ways: Import<-->Export, Autonomy<-->Cooperation, and Globalisation from Below<-->Globalisation from Above. Examples of engagement beyond local processes are at times highly visible such as those of stallholders exporting their foods. At other times, they are more complex such as the impact of the global financial crisis on farmers’ markets. The findings suggest that although emphasis is commonly placed on pathos-driven terms like local, farmers’ markets also engage with global processes. Against the backdrop of the interviews, this paper explores the complexity of the terms global and local as it relates to food and food systems. Farmers’ markets are relevant sites to study this communicative complexity due in part to their recent rapid growth around the world, and their strategic use of localist discourses. The contemporary farmers’ market is not an isolated market, but extends beyond the many definitions of local. Understanding the tensions between the local and the global at farmers’ markets has potential to add a complex lens with which to view language and food, as well as begin to identify the global role of farmers’ markets.

Tuesday 25 November, 09.00 – 10.30 
**Room 2, Session: Food Security, Social Protections and Livelihoods in the Global South**

Madhushree Sekher (Tata Institute of Social Sciences, India) (presenter), S.Parasuraman (TISS, India), Sandhya Kumar (TISS, India), Bill Pritchard (University of Sydney), Rajesh Rai (TISS, India) and Anu Rammohan (University of Western Australia).

**Empowering People to Power the PDS: A Process Mapping Analysis of the Public Distribution System in Six Indian States**

India’s growth story has grabbed headlines for both the right and wrong reasons. Despite comparatively high growth rates, the country has struggled to dampen the scourge of food and nutrition insecurity facing its population. The Public Distribution System (PDS) is the heartline of India’s food security initiatives, but has been plagued by problems ranging from ineffective targeting of beneficiaries, to corruption and pilferage of foodgrains. Recent years have seen a revival in PDS operations in select states, and the tabling of the National Food Security Act (NFSA) rejuvenated discussions on how best to address the lagging food and nutrition needs of millions of vulnerable households. In this study, we conducted a six-state process mapping exercise to capture the movement of foodgrains from the farm to the beneficiaries. Through this analysis, we identify key themes in states where the PDS is thriving, including expanding coverage, employing technology, and decentralizing procurement. These measures increase stakeholdership in the running of the PDS, and allow individual citizens to better monitor operations through greater access to information.

Jorg Gertel (Leipzig University, Germany).

**Geography of Temporalities: Flexicurity and Bread Riots**

The paper addresses the changing temporal dynamics within agri-food systems. I will argue that the protest movements during the Arab Spring are largely connected to food price hikes in basic foodstuffs, particularly grains. Different temporalities conjunct: Global wheat export production (US, Russia, etc.) is fluctuating, depending on regional hazards (drought, heavy rains) that impact contiguously on price developments. As international grain handling is largely concentrated in the hands of few elevators (Cargill and the like), the costs for storage, the physical movement and timely delivery are largely concealed, while record profits were realized by the companies during food crises situations in 2008 and 2011. Grain prices are, however, moreover shaped by index speculation and high frequency trade; again reflecting multiple temporalities with different inherent logics. On the consumption side, the poor are most vulnerable. The depletion of their household resources, limiting buffer possibilities and endangering even the access to ‘cheap’ bread, is linked to decades of neoliberal privatisation policies. These trajectories are driven by different temporalities. The paper hence focuses on one intersection: on ‘flexicurity’; (Gertel & Sippel 2014), the means of flexibility required in order to achieve security, that becomes inscribed into this agri-food chain and investigates the societal consequences resulting from it.
Chetan Choithani (The University of Sydney).
Understanding the Linkages between Migration and Household Food Security in India

This paper aims to highlight the role of migration as a livelihood strategy in influencing the food security outcomes among rural households in India. Food security is a key global challenge and India accounts for nearly a quarter of world’s 842 million undernourished people. A large majority of India’s food insecure people resides in rural areas, owning either small agricultural holdings or no land and thus, excessively depends on wage income from distant labour markets. The traditional importance of migration in the livelihood systems of rural poor notwithstanding, recent years have witnessed an unprecedented surge in rural outmigration in India. It is important to note that the most dominant pattern of rural outmigration involves migration by relatively younger males while the other household members stay behind. From the perspective of food security, this pattern of migration implies that through channels such as remittances and changes in gender roles, migration can have a potential impact on household food security outcomes. Drawing from the primary survey of 392 rural households in the eastern Indian state of Bihar, this paper attempts to highlights these linkages. The findings suggest that despite the distressed-induced nature of migration, remittances provide an important source of household income which are positively correlated with household food security. Furthermore, the predominantly single-male migration from Bihar results into women assuming more proactive role in managing the household affairs which also shows positive, albeit complex, associations with food security. The gains of migration, however, are still quite muted because its significance for the poor rural households is not adequately recognised among the policy-making communities in India. The findings also warrant policy attention on moving away from the prevailing “rural-equals-agriculture” paradigm of thinking and bridging the substantial disconnect that currently exists on the discussion around migration and food security.

Tuesday 25 November, 10.50 – 12.15
Room 1, Session: Analysis of a Political Project – Food Sovereignty Part II

Karyn Stein (Center for Food, Agriculture, Energy & the Environment, University of Otago, NZ).
Maori Women & Food Sovereignty in New Zealand & the Pacific Islands

The project I’m currently working on explores Māori women’s role in promoting local food sovereignty within NZ through participatory and indigenous research methodologies. Empirical case studies from different regions, illustrate alternative, post-capitalist, indigenous paradigms that see food as more than just a commodity, and are reconnecting families and communities with the multi-dimensional nature of food. The study aims to link Māori women and contextualize their local efforts with regard to tino rangatiratanga of maaka i (“sovereignty of pure food”) within the broader international food sovereignty and indigenous rights movement. The paper/presentation takes a comparative perspective in analyzing power and control within the modern food system and international trade policies, looking at how fatty and highly processed foods, such as mutton and lamp flaps, a low quality high fat meat from New Zealand, are being “dumped” in the Pacific Islands, affecting local food sovereignty and impacting health and nutrition. In addition, the paper compares the concept of food sovereignty in contrast to food security.

Christine Parker (School of Law, Monash University).
To Nudge and Be Nudged: The Politics of Reflexive Consumerism and the Architecture of Choice in the Supermarket Aisle

There is also growing enthusiasm in government policy circles for promoting strategies designed to encourage and enable individuals to make better choices about their health and wellbeing, finances and the environment. The influential book, Nudge: Improving Decisions about Health, Wealth, and Happiness by Thaler and Sunstein dovetails into this consumer choice approach to public policy by arguing that people can be nudged towards making better decisions about their lives and environment in such a way that it does not unduly restrict their liberty or freedom to act. This paper suggests that the “paternalistic libertarianism” (as the authors themselves describe it) of Nudge could be read as an attempt to create reflexive consumers who in turn help create better capitalism by the choices they make. The issue is however who creates the “architecture of choice” which nudges the reflexive consumer to make a better system? The world of food politics exemplifies the issues in terms of making healthy choices for both oneself and the environment in a situation where large corporations especially supermarkets largely control the choices consumers can make. The paper uses case studies of free range eggs and pesticide use in strawberry production to explore the issues.

Nicolette Larder (The University of Queensland), Sarah R. Sippel (Leipzig University), Geoffrey Lawrence (The University of Queensland).
Negotiating shifting land control: Finance actors as land owners in rural NSW, Australia

In recent years large-scale acquisitions of farmland has garnered much attention from agrarian scholars who have been critical of the shifts in control of productive lands. Such shifts are viewed as deepening processes of enclosure to enhance capitalist
accumulation. More recently, the growing presence of the finance sector in agriculture has been described as part of an ongoing ‘financialisation’ of agriculture, signified by the growing presence and power of financial actors and finance capital along agri-food commodity chains. In the Australian context, actors from the financial sector, including investment banks, sovereign wealth funds and asset management firms, are now among the largest landholders in the country. Both in Australia, and internationally, the movement of financial actors into the productive agricultural sector has provoked a questioning of the motives for, and implications of, these investments. Overseas, there has been significant resistance to what is deemed to be a new form of colonialism – one which removes people in the global South from the land illegally or unfairly. While there has been nothing illegal about land transactions in the Australian context, it is nevertheless true that the surge in foreign investment for the nation’s farmlands has its critics – politicians, academics and journalists among them. But how is this new round of foreign investment being experienced ‘from below’? To date, there has been little examination of how people living in rural Australia interpret and negotiate the entry of these new land owners into their communities. The purpose of this paper is to explore financialisation within the Australian context and offer insights from the perspective of land holders living in central NSW – a region characterised by recent shifts in land purchase involving financial entities such as the Macquarie Group and Qatar’s sovereign wealth fund.

Alana Mann (University of Sydney).
Food sovereignty in the bioeconomy

In the emerging bioeconomy ‘a substantial share of economic output is partly dependent on the development and use of biological materials’ (OECD, 2009). These developments and uses include the harvesting and processing of feedstocks for biofuels. Civil society organisations including the global peasant farmers’ movement La Via Campesina argue that ‘the promotion of biofuels is undermining the right to food, and not just through rising food prices and greater food price volatility’ (Open Letter on Biofuels to the World Committee for Food Security, 2013). This paper interrogates these claims, arguing that the emerging bioeconomy offers new possibilities for the realisation of not only food but energy sovereignty when applied to non-food crop and forest residue and waste that do not impact on food production. The challenges lie in strong government policy and stakeholder engagement to ensure that the benefits of the bioeconomy are channelled to small-scale farmers and rural communities.

Tuesday 25 November, 10.50 – 12.15
Room 2, Session: Food worlds/cultures

Michelle Phillipov (University of Tasmania).
‘Helping Australia Grow’: Coles, My Kitchen Rules and Integrated Advertising

From farmers’ markets to primetime television cooking shows, notions of ‘knowing where our food comes from’ and ‘reconnecting’ with the sources of our food are now central to a range of contemporary cultural movements and popular media texts. While these ideas have primarily been mobilized by those with activist commitments to ethical and sustainable food production, they are also increasingly appearing in the media and marketing strategies of large agribusiness and retailing corporations, including those of the major Australian supermarkets. This paper explores some of the techniques currently used by major supermarkets to respond to criticisms about their food ethics, market control and relationship with producers. Using My Kitchen Rules as a case study, it will consider how Coles supermarkets’ utilization of sponsorship and integrated advertising strategies work to put a ‘face’ to the farmers who produce the products found on supermarket shelves. By emphasizing to Coles customers that they, too, can ‘know where their food comes from’ and that their purchasing decisions support individual farmers and family farms rather than large conglomerates, these strategies help to locate Coles within a network of meanings that seek to both shift and contest negative perceptions of the supermarket chain’s corporate practices and food politics in ways that potentially complicate the activist discourses from which they draw.

Gabrielle O’Kane, Barbara Pamphilon, Katja Mikhailovich, Coralie McCormack (University of Canberra).
A moveable feast: A continuum of engagement with food citizenship across five different foodways

Although the globalised food system delivers unparalleled food variety and quantity to most in the developed world it also disconnects consumers from where, how and by whom food is grown, which discourages food citizenship. This paper explores people’s participation in their usual food procurement environment and their relationships to food, which reveals pathways to food citizenship. This research used narrative inquiry methodology and purposive sampling to gather stories through focus group conversations. Fifty-two people voluntarily attended focus groups comprised of food procurers from one of five sources: community gardens, Community Supported Agriculture (CSA), farmers’ markets, fresh food markets or supermarkets. A narrative was constructed for each of these groups of food procurers; their commonalities and particularities were illuminated through a final interpretive narrative. The findings showed that people’s meaning-making of food can be very complex and at times contradictory, both within and across the different foodways. Food procurers, who actively participated in their chosen food system, enjoyed a ‘contemporary relational food culture’ and more consistently and enthusiastically enacted food citizenship. There is a continuum of engagement with food citizenship from the community garden food procurement environment at one end and the supermarket at the other. The community gardeners made meaning of food through their connections to the earth and to others. They rejected food available through supermarkets; instead, they grew, processed and prepared their own food, a pleasurable and meaningful use of their social time. The CSA and farmers’ market groups similarly disconnected from mainstream assessments of food quality and re-connected in new ways. However, for the CSA members, these values were put aside when clock time imposed itself. Both the farmers’ market and CSA facilitated food citizenship, as the farmers made organic, seasonal, local and ethically produced food available for their customers. The farmers’ market shoppers became absorbed in their shopping experiences, where they developed relationships with farmers and a desire to support more sustainable food systems. Further along the continuum, the complexity and contradictions of food choice became more apparent in the fresh food market shopping environment. This foodway did not enable meaning-making of food through intimate connections to the food producer or the place in which it was grown. Convictions about
sustainable food practices amongst this group were inconsistent and often contradictory, making the path to food citizenship unclear. The supermarket shoppers at the end of the continuum expressed that supermarket food was inferior to other food, but still used it. They did not tell stories of the importance of where or by whom food was grown, but described their meaning-making of food through cooking and sharing meals. Clock time overwhelmingly prevented these shoppers from spending social time on food-related activities. This group’s disconnection from those who grew their food and where it was grown disempowered them from making sustainable food choices. This paper provides qualitative evidence that local food systems enable people to re-connect with their food and become food citizens.

Helen Greenwood (University of Sydney).

Disgust and Trust: how a chef can persuade people to overcome cultural prejudices; a case of pursuing sustainable eating through relationships

Sustainable has been a buzzword in restaurant circles for more than a decade. Culturally- and politically-astute chefs world-wide and in Australia espouse Slow Food, Fair Trade and Marine Conservation Society philosophies; they embrace recycling, indigenous ingredients and locavorism. Scholarly writing has honed in on how chefs engage with local food networks because “Chefs have been recognized as potentially important partners in efforts to promote local food systems.” How chef-owners practise and communicate other aspects of sustainability has attracted attention, too. Missing from these studies are explorations of how chefs use their influence to persuade people to reconsider cultural and historical food prejudices. This paper will focus on the Sydney chef, Kylie Kwong, well-known for her public and commercial commitment to sustainably-produced food, including Aboriginal native foods and entomophagy or eating insects. Kwong’s celebrity as a cookbook author and through her appearances on television cooking shows gives her a particular and powerful position in the food discourse. This paper will explore the conditions in which and through which Kwong’s “ethical leanings may influence the behaviour of consumers”. In other words, how did a chef persuade Australian restaurant-goers to eat high-priced sustainable food, Aboriginal bush tucker and edible insects?

Sarah James (Australian National University), Friel S., Hoek A., Lawrence M., Pearson D.

Encouraging healthy and sustainable food behaviours: a consumer perspective

Consumers have been described as the ‘elephant in the room’ of sustainable food policy, a key but to-date largely ignored actor in the food system. While there is an increasing uniformity in calls for integrating both consumption and production into approaches food system sustainability, there is still little known about consumer’s views around sustainability and, critically, how this might be leveraged into behavioural change. Our current ARC project “Foodprint” will generate new empirical evidence and adds the much needed consumer perspective to the health/sustainability debate. In the first stage of the consumer research, online in-depth interviews were held with 30 Australian food shoppers with either a low, medium or high involvement in healthy and sustainable food behaviours. After collecting associations with food, health and ‘the environment’ in general, we focussed on a suite of healthy and sustainable food behaviours that have an evidence-based impact on health and the environment. Finally we explored consumers’ ideas around different policy options such as nutrition labelling, taxes and subsidies, and advertising regulations. This project will help government and organisations prioritising actions to support consumer behaviour change.

Tuesday 25 November, 13.15 – 15.20
Room 1, Session: Can the Oceans Feed Humanity?

Elspeth Probyn (University of Sydney).

Listening to fish: More-than-human politics of food

Across several sites such as Slow Fish (http://www.slowfood.com/slowfish/), it is becoming clear that the dominant representation of environmental issues in terms of ‘us versus them’ (e.g., fishers versus ‘greenies’, forestry versus ‘tree-huggers’, etc.) is seriously limited. In the area that my research addresses, the complex entanglements of issues around the oceans, fish and humans cannot be understood in simplistic and antagonistic binary relations. A more complex ontology also requires a more subtle way of going about researching these issues. In my project on human-fish communities I draw on several different methods, which together might be framed as a more-than-human methodology. Lead by a careful ear, I attempt to follow lines of connection to build a more intricate understanding. This involves an embodied and dialogic ethnography attuned listening to stories and relaying them, to trying to capture affective spaces through various forms of description, and to reaching for the depth of history that informs tacit knowledge embodied in individuals’ ways of being and ways of recounting. My hope is that the ensemble of methods used produces a kind of allopoiesis – a way of capturing the morphing movement of the entanglement continually remade as fish and humans swim across and render mutable various scales of borders.

Anna Farmery (University of Tasmania), Bridget S. Green, Caleb Gardner, Sarah Jennings, Reg Watson.

What does sustainable seafood look like?

What does sustainable seafood look like? Dolphin friendly tuna with a higher carbon footprint than dolphin unfriendly tuna? Flathead from a trawl fishery that has been operating for over a hundred years? MSC certified Canadian salmon on a Tasmanian supermarket shelf? In this paper we explore the concepts of sustainability and seafood, including limitations, trade-offs and the need for seafood sustainability to contribute to global food security. We look at how fisheries management can be used for environmental performance and how wild capture and aquaculture sustainability assessments can be broadened to include a suite of new indicators. We also discuss the environmental implications of the growth in seafood imports in developed countries in terms of production and supply chain impacts.

Sonja Ganseforth (University of Leipzig, Germany).

Property Rights and Sustainability in Japanese Fishing Communities

This contribution is based on extensive fieldwork in Japan for a post-doc project, which explores the question of how property rights in fisheries are re-negotiated in the context of dwindling resource stocks, new global commodity chains in fishery produce and the intensified territorialisation of maritime space. Interview in Japanese language with a regional focus on coastal fishing.
communities on the Japanese island of Kyūshū offer insights into Japanese insider perspectives on the construction of property rights and sustainability in fisheries. While local fishermen do complain of a drop in maritime resources, this is not the only threat they see for the sustainability of their livelihoods. The rising cost of fuel and stagnating fish prices contribute to the declining profitability of this economic sector, which used to offer vast earning opportunities to young Japanese men a few decades before. Structural transformations on the level of the distribution and consumption of fishery produce are increasingly challenging their livelihoods. The emergence of buyer-driven global commodity chains in fishery produce, the proliferation of large supermarket chains since the 1980s, and a re-orientation of consumer preferences towards standardized, ready-made, and increasingly imported seafood products constitute a profound shift in the power structures of the seafood business in Japan. Not different from many farming communities in Japan, most fishing communities face problems of de-population, a general marginalization of rural areas and the demise of its main source of income. With plummeting total numbers and more than 50% of employees in Japanese fisheries above the age of 60, largely family-operated fishing enterprises are facing a severe lack of successors. This lack is especially problematic as it makes investments in fishing tools, nets, motors and boats very difficult and leaves little room for plans for the future. At this intersection of ecological and social sustainability, fishermen as well as policy makers develop seemingly paradoxical strategies: Calls to eat more local fish aim at averting the overexploitation of marine resources; and fishing cooperatives rally in support of environmentally destructive industries for the sake of profitable compensation. This contribution seeks to shed light on the different conceptualizations of ‘sustainability’ taken by different actors in the Japanese coastal fisheries sector and the consequent strategies they employ to achieve this sustainability.


Marine protected areas—thought for food

The global increase in the number and size of MPAs implemented to offset anthropogenic stressors and halt the decline in marine biodiversity is coinciding with growth in the human population and increasing demands on ocean resources. MPAs frequently exclude fishing as a means of restoring and protecting biomass and species richness. The efficacy of MPAs in excluding fishing is often compromised by the need for communities to eat and trade, by poor design and implementation, and by downstream impacts. Here we show strong regional differences in the impacts of MPAs on food security, with a loss of seafood production in nations where there are real food shortage implications for the poorest people; although little access to food lost in developed countries. Six of the countries with the highest level of catch foregone to MPAs have the highest vulnerability to reduced fishing and seafood due to income inequality within the country and lack of adaptability as a result of low education levels, low GDP and low Human Development Index. MPAs have been implemented to conserve biodiversity but risk failure as their placement reduces food security where it is needed most. As only 10-40% of MPAs currently achieve their targets or are effective, we propose the explicit inclusion of food security measures in developing frameworks for more effective MPAs, and management approaches that allow for harvesting but in a manner where both conservation and food security requirements are met. In order to meet long-term conservation goals there needs to be thought for food.

Kate S Johnston (University of Sydney).

Sustaining Nature, Sustaining Culture: the case of a controversial fish

The term sustainability came to the global forefront during the 1980s and 1990s; finding its way onto the agendas and into the rhetoric of international politics, as well as social and environmental campaigns. In response to the disquiet over widespread environmental devastation, increased knowledge of climate change, the effects of globalisation, and many key social issues like food security, poverty, health and rights to natural resources, sustainability became a necessary process for the future of the world and of humanity. These were the sentiments echoed at a global political level. The seminal 1987 United Nations Brundtland Commission report was one such iteration that defined sustainable development as “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (UN, 1987). The notion of sustainability and sustainable development that emerged with in this period was integrative and based on a three-pillar model that attempted to bridge environmental, social and economic realms. Through critiques of the limitations of the three-pillar model came a call for culture to be included as an essential component of sustainability. Some called this the fourth pillar. A space opened for discussions about the cultural dimensions of environmental management itself, rights to natural resources, and the wealth of local ecological knowledge and practices amongst indigenous and traditional communities. In a less explicit way this period also saw a revival of debates about the nature/culture binary as the relationship between diverse cultures and the environment came to the forefront. This paper considers the currency of the four-pillar model of sustainability and the place of culture in relation to policies and campaigns that aim to sustain global tuna populations. As a food resource for humans tuna spans from the affordable canned variety to the prestigious Bluefin served raw. As a case study tuna offers numerous instances where economic, ecological, social and cultural realms intersect. From production through to consumption environmental policy and campaigns are shaping these realms. I will draw on ethnographic fieldwork conducted in traditional Bluefin tuna fishing communities in southern Italy in 2013, as well as research into eco-label canned tuna products and campaigns. Through these examples I will press the term sustainability and considers the paradoxes involved in the project of simultaneously attending to the realms of culture and the environment.

Catherine Phillips (University of Queensland).

Spectres of fishing in the Gulf: a material politics of ghost nets

This paper expands developing interest in oceanic and waste research in agrifood studies to consider the end-of-life entanglements, valuations, and governance of ‘ghost nets’. The term ‘ghost nets’ applies to lost, abandoned or discarded fishing nets. Comprising approximately 20% of global marine debris but resulting in disproportionately high impacts on marine species and environments, ghost nets are a significant international problem manifest in particular, often remote, places. The materiality, global trade, and emplacement of ghost nets create challenges for dealing with their effects in contemporary fishing and conservation practices. This paper draws on participant observation, interviews, and policy review. The recovery, identification, and disposal of ghost nets in the Gulf of Carpentaria is analysed to gain insight into the effects of and responses to ghost nets’ presence as well as to illustrate the possibilities and challenges of taking a material politics approach to understanding the problem.
Robert Parker (Institute for Marine & Antarctic Studies, University of Tasmania), Peter Tyedmers (School for Resource and Environmental Studies, and College of Sustainability, Dalhousie University, Halifax, Canada), Caleb Gardner (Institute for Marine & Antarctic Studies, University of Tasmania), Bridget Green (Institute for Marine & Antarctic Studies, University of Tasmania), Klaas Hartmann (Institute for Marine & Antarctic Studies, University of Tasmania), Reg Watson (Institute for Marine & Antarctic Studies, University of Tasmania).

Fishing for a green diet: the energy demands and carbon footprint of global fisheries

The global fishing industry relies on inputs of fossil fuels to power everything from vessel propulsion and gear operation to onboard processing, refrigeration and navigation systems. The upshot is that, globally, the world’s fishing fleets consume nearly 50 billion litres of diesel annually and emit 150 million tonnes of greenhouse gases. Energy use and emissions contribute to climate change and potentially limit fisheries production where costs are high, particularly in developing countries where fisheries form a large portion of the diet. Many of the world’s fisheries, though, have been identified as low-carbon alternatives to intensive land-based systems, providing efficient protein pathways from ocean to plate. We calculated energy inputs to global fisheries over two decades to identify the most and least efficient means of getting protein from the ocean. Our assessment speaks to the energy implications of feeding the world’s population, and places fisheries within the context of global food production systems to determine whether the ocean can provide a carbon-friendly solution to today’s food security challenges.

Tuesday 25 November, 13.15 – 15.20
Room 2, Session: Governing Climate Change

Kiah Smith & Geoffrey Lawrence (presenter)
(University of Queensland).

From disaster management to reflexive governance?
Challenges to the governance of Australian food systems in ‘crisis’

Building social-ecological resilience into food systems at all levels is viewed as hinging on governance processes that are more collaborative, adaptive and reflexive. This paper considers the capacity of current governance processes to deal effectively with Australia’s food security through a case study of events surrounding the extensive flooding that occurred in Queensland in 2011. Drawing insights from semi-structured interviews and a review of key government policies, we explore (1) the current governance structure and policy context for ensuring food security during such events; and (2) the experiences of key food system actors (government, food producers, processors, retailers and community groups) in coordinating effective governance (and ultimately, food security outcomes) during this time. We find that, despite the existence of numerous governance instruments at local, regional, state and national levels, responsibilities for ensuring food security are not clearly articulated. Major supermarkets were largely responsible for ensuring food supply, even in an emergency, with government playing a facilitative but limited role due to structural constraints, poor communication and ‘red tape’. There was limited collaboration between government and non-supermarket food system actors – such as food cooperatives, farmers’ markets, community organisations and charities – despite these actors contributing significantly to the disaster response. Drawing on theories of collaborative, adaptive and reflexive governance, we argue that more flexible and multi-actor governance arrangements are needed to support the distributed social and economic networks that were crucial to food security outcomes, and to build upon the social learning that occurred during and after the flooding. Lessons from this isolated ‘crisis’ can inform the broader governance challenge of building eco-social resilience in the face of future climate change.

Jane Muller (University of Queensland), Geoffrey Lawrence (University of Queensland), Michelle Brady.
Responses to natural disasters in mainstream and alternate fresh produce supply chains in Queensland: exploring resilience and climate risk governance in agri-food systems

Climate projections for Australia indicate that extreme weather events are likely to occur more frequently and become more intense in the future. This suggests that agri-food supply chains and the businesses within them will require a strong capacity to cope with natural disasters, and potentially, to rapidly recurring events. Resilience and climate risk governance, then, are emerging as important concepts for research regarding food security in the face of climate change and a supermarket-driven food system. Since 2010, some of Queensland’s most important horticultural production districts, packing and distribution facilities, and transport infrastructure have been severely impacted by recurrent natural disaster events. The ways in which fresh produce supply chain members respond to these events and their plans for the management of future climate risks may provide valuable insights into the resilience of agri-food systems and identify implications for Australia’s future food security. This paper will present a customized theoretical framework for agri-food system resilience that has been developed to explore how actors within supermarket and alternative fresh produce supply chains are responding to the flood and storm events of 2011 and 2013 in south-east Queensland, and preparing for future events. The preliminary findings of interviews with fruit and vegetable producers, packers, transport companies, wholesalers and retailers will then be presented: what factors enable or constrain their recovery; what adaptations they and their supply chains partners are implementing; what opportunities there are to share future climate risks across the supply chain; and how differing supply chain governance arrangements and the power relationships embedded in them influence their capacity to build more climate-resilient agri-food systems.

Angga Dwiantama (Institut Teknologi Bandung) and Cinzia Piatti (Otago University).
A disruption to stability: analyzing Alternative food networks in New Zealand through the lens of resilience framework

Alternative food networks (AFNs) as a valid response to food security is often easily dismissed due to its lacking the power and authority to disrupt established governance arrangements within the global food system. Despite a high fragmentation, resulting in the lack of a politically unified and coherent dimension able to convey the many actors and issues under the same conceptual framework, these networks have been able to impose a disruption in the productivist and quantitative narrative inherent in the current system. This paper will compare mainstream food supply chains and alternative food networks in New Zealand through the lens of resilience framework (Gunderson & Holling, 2002). Using this framework, social-ecological resilience is observed through periods of stable growth, collapse and reorganisation, often accompanied by shocks and crises.
Building resilience through proximity

As more and more commodity chains are going global and concentrating in a handful of multinational corporations, a growing number of initiatives dedicated to rescuing local food and foodways are popping up. Local food projects are frequently used as a vehicle to engage both urban and rural communities in promoting resilience, and fit well with the overall sustainable communities’ agenda. Moreover, local food efforts are often intended to counteract the ecological, social, and economic impacts of a globalised food system. In the province of Quebec, Canada, virtual markets have emerged and multiplied since 2006. Originally established under the banner of the Friends of the Earth, some of these virtual markets are now operating independently. These entities coordinate the supply of food products on behalf of producers and consumers, providing technical (in the form of an electronic platform) and infrastructure support for product distribution. What sort of governance model are the producers, consumers, volunteers and virtual markets operators putting forward? What type of links do these virtual markets create between producers, consumers and the civil society in general? To what extent do these markets effectively contribute to the building of community cohesion? Do they enhance the economic viability of local farmers and promote environmental protection? Drawing from the ethnographic case study of a virtual farmer’s market, the Marché de proximité de Québec, this paper will discuss the influence of alternative food chains governance on the building of eco-social resilience.

Claudia Laviolette, Manon Boulianne (Laval University, Quebec, Canada).

A disruptive power is found in shocks that are able to create an opening for the growth of a more adaptive, alternative system. Reflecting from the growth and (assumed) stability of New Zealand’s neoliberal agricultural regime, this paper seeks to identify the spaces created by a variety of social, economic and environmental shocks (e.g. world food and financial crisis, climate change, and the growth of a risk society in the country), and to address how localized and alternative activities respond to food security issues.

Carol Richards (Queensland University of Technology), Kristen Lyons (The University of Queensland), Ellena Shaw (The University of Queensland).

Fossil Fuels and Land Use Conflict: The Enactment of a Local/Global Challenge

The fossil fuel extraction industry in Australia has seen unprecedented expansion in recent years, particularly in coal seam gas. This has sparked fierce disputes regarding the social, environmental, economic and health impacts. The so-called ‘unholy alliance’ of farmers, ‘greenies’ and other disparate interest groups, both local and distant to extraction sites, are raising awareness of local level impacts as well as global climate change. At the same time that new local and global alliances are taking shape in the conflict over land, fossil fuel companies appear to be losing steam in the procurement of exploration sites, granting of licenses and backing by finance capital. In this paper we explore the dynamics of new local/global alliances and the impacts of their campaigns by mapping ways in which shared understandings are converging and mobilized to challenge the fossil fuel industry. Drawing on secondary data from media reports, social media and documents, we analyse the strategies and tactics that have underpinned campaign successes. Conclusions drawn on the basis of this analysis contribute to the growing body of academic and advocacy work that maps the strategies and tactics to effect positive land use decision making.

Claudia Laviolette, Manon Boulianne (Laval University, Quebec, Canada).

Whose security? The contest over food security in Australia's National Food Plan and Agricultural Competitiveness White Paper

This paper analyses competing appeals to food security in Australian policy discourse, and the problems and solutions these appeals hide and produce. While food security originated as a policy response to hunger and poverty, more recently it has been enlisted to address a broad range of issues, from agricultural productivity to climate change. Given that Australia produces enough food to feed a population of 60 million, what does it mean for the nation to give such policy prominence to food security? Using a mixed analytic lens developed from Foucault and Bacchi, we examine the framing of food security in two recent national food and agricultural policy events, the National Food Plan (2011-13) and the Agricultural Competitiveness White Paper (2014 ongoing). We argue that the Australian government’s Green and White Papers, as well as submission from key stakeholders, offer competing conceptions of food security that draw on an entanglement of economic and moral ideas. This has two effects: it reinforces the post-war Productionist Paradigm, and it silences the inherently political nature of Australian food and agricultural policy. This paper traces the lines of policy discourse to examine the political implications of recent interest in Australian food security.

Jenny Kaldor (presenter) (University of Sydney) and Christopher Mayes (University of Sydney).

‘Food justice’ and ‘climate justice’: Emerging discourses, policy responses, potentials and critiques

This paper presents a preliminary analysis of the connections between ‘climate justice’ and ‘food justice’, both discursively and in policy making. These represent important concepts shaping the governance of climate change, food security and social justice on a global scale, yet how they might combine to influence rights-based or market-based development policy is highly contested. In this paper, I consider the ways in which food justice and climate justice combine at the (a) global level of international governance and social movements; (b) national level of right to food frameworks and programmes, and the (c) local level of smallholder farmer livelihoods. A paradox emerges by which climate change and food security are often addressed as separate issues in global and national policy making domains but are increasingly connected by critical social movements and peasant farmers themselves, and where rights associated with climate justice are much less visible in policy making than the ‘right to food’ (which has become part of national legislation in some countries). In this context, the potential for ‘food justice’ discourse to capture the climate-food security concerns of smallholder farmers is unclear. Finally, the paper suggests directions for empirical research to explore the links between emerging justice discourses/policies and the lived experiences of peasant farmers in the global South.

Kiah Smith (University of Queensland).

Agrifood XXI
21st Conference of the Australian Agri-Food Research Network

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Tuesday 25 November, 15.45 – 17.00
Room 1, Session: - The Post-human Turn in Agri-food Studies – Part I

Matt Henry (Massey University).
Meat, Metrics and Market Devices: Assembling ‘the schedule’ in New Zealand’s red meat sector

Caliskan (2007) has argued that while we live in worlds that are saturated with a concern with prices, we know very little about how they are fashioned and circulated. This concern with prices, and in particular low prices, has been a reoccurring point of problematisation within New Zealand’s red meat sector and the prompt for ongoing work. Yet, as Caliskan suggest more generally, we know little of the ways in which prices within the red meat sector are created. Taking this provocation as a starting point this paper explores the regular listing of prices for sheep and beef that is traditionally known as ‘the schedule’ in New Zealand. The paper frames ‘the schedule’ as form of market device and traces the complex filigree of associations that are assembled to make it durable. In tracing these associations what emerges are wider metrological assemblages performed through the complex and unstable interaction of mark et devices, price, agency and materialities. What this suggests is that because price is often a key metric of problematisation, we need to develop our understanding of the materialities, artifacts and infrastructures that are assembled to make prices possible, and the different possibilities that those things enact.

Katharine Legun (University of Otago).
Massive Modern Packing Lines in an Era of Affected Food Markets

Modern apple packing lines swiftly and precisely sort large quantities of apples along an ever-increasing array of physiological standards. The metrics of those standards can be altered quickly to accommodate demands from different market niches, so that the apples appearing on a retail shelf may be highly consistent with each other while differing from the apples that appear on the shelves of a neighboring retailer, even when the apples are the same variety, emerging from the same region, and possibly from the same orchard. This paper discusses how modern packing lines facilitate the production of symbolic food aesthetics and affective retail spaces. These packing lines both reflect and reproduce metrics of quality that guide the ethics and desires attached to apples. As medium-sized greenish apples grace the bargain bins, large red apples make it to the pristine shelves of a high-end retailer, and unique apples appear in foodie hotspots, physiological features of apples are made socially active in ways that shape the cultures of consumption and production.

Angga Dwiartama (Institut Teknologi Bandung, Indonesia).
The vibrancy of rice in Indonesia’s agriculture and food system: a look beyond political economy

Indonesia’s rice agri-food system offers a case of multiple realities, from that of traditional to modern to alternative food systems, among which contestation often occurs in a fight for political power. In a political economy narrative, the blame is by and large put on human and institution as the sole source of agency. This point of view, as it turns out, fails to address the complexity of human-nature relationships and often ends up with agricultural inefficiency and political deadlock. As an alternative, this paper employs a vibrant materialist approach (Bennett, 2007), which sees agency as a force distributed across multiple entities, both within human and non-human. Based on this approach, this paper observes the extent to which the characteristics of rice shape how agricultural practices and policies are enacted in Indonesia. It follows on different varieties of rice and their capacity not only to influence human’s affective and cognitive processes, but also participate in the emergence of alternative civic movements. It concludes by suggesting that the political objective of vibrant materialist approach in agri-food studies, particularly in the case of Indonesia’s rice food system, is to nurture a diversity of actions and practices shaped by the nature of non-human actors and their alignment with the rest of the actors in the network.

Chris Rosin (University of Otago) & Hugh Campbell (University of Otago).
Sustainability and Metrology: examining the ‘metric-centric’ approach to sustainability audits in NZ

The study of metrology has emerged in the last couple of years as a useful new approach to understanding economic practices and networks. This paper presents the three ways in which metrics can be theorized: 1) as simple representations of uncontested values, 2) as signifiers of the power of wider institutions or structures, and 3) as having their own power as ‘material agents’ within economic networks. These three ways of understanding metrics are examined using case studies drawn from the evolution of sustainability auditing in the New Zealand kiwifruit and wine sectors and through the branding of indigenous products by Iwi. In each case, there are elements of the development of new economic practices that suggest that metrics, not only operate as simple values or signifiers, but also can work as material agents in re-organising economic activity.

Tuesday 25 November, 15.45 – 17.00
Room 2, Session: Local Practices, Local Institutions and Food

Bob Fagan (Macquarie University) and Elizabeth Morgan (Macquarie University).
Local Government, ‘Third Sector’ Organisations and Food Security Strategy: Preliminary Studies from Western Sydney

Over the past decade, issues of food security and insecurity in developed countries like Australia have been set increasingly in the context of ecological threats to conventional (globalised) food provision systems and a diverse range of public anxieties about those systems. This has coincided with geographically and socially uneven impacts over the past three decades of fundamental changes in systems of governance, one result of which has been to shift delivery of community welfare services away from dominance by state agencies towards private sector providers, public-private partnerships and not-for-profit (‘third sector’ organisations). These political changes have shaped, often in contradictory ways, both the rising incidence of food insecurity in particular localities and the increasingly complex mix of state agencies and ‘community’ sector organisations trying to ameliorate it. This paper takes up the theme of potentials and limitations of multi-stakeholder and multi-scalar governance frameworks for enhancing local food security. It provides a preliminary examination of intersections between recent strategies of local government and not-for-profit organisations trying to enhance
local food security in particular places. It draws on recent empirical research into food security programs of local councils in Western Sydney and of Australian Red Cross, one of Australia’s largest organisations involved in community service delivery and which in 2013 introduced a national food security strategy to overarch food programs in specific localities. The paper explores potentials and challenges facing greater collaboration between local councils and community sector organisations aimed at building more sustainable and socially-just food provision systems at local scale.

Corrina Tucker (Massey University, New Zealand).

**Four households’ efforts to minimise food and food-related waste**
The organic (food and garden) waste stream in New Zealand is a significant problem, with recent figures estimating it as being around 28% of total waste going to landfill. Moreover, it is the food part of this stream that is most problematic. A survey conducted with 147 households in Palmerston North, New Zealand, found that on average, 40% of food waste went directly into their rubbish. As part of a follow up action research project on minimising household municipal solid waste, the food and food-related waste habits of four households was further explored. This presentation looks at the findings of the four participant households in the action research project, by showing the amount and type of food and food-related waste produced, as well as the different methods used to try and minimise such waste. Each household faced different sets of challenges, and also chose different methods to minimise their waste. Ultimately, this research sh ows that food waste is an area that can largely be avoided at a household level. However, we live in an epoch whereby consumerism is endorsed as a cornerstone of a thriving economy; hence there is little incentive to purchase or act in a way that is environmentally sound. Curtailing household food and food-related waste to minimal levels requires not only individual efforts, but wider scale structural incentives as well.

Anne O’Brien (Australian Catholic University).

**Practice-led public mindedness in ecological agriculture.**

An understanding of the relationship between carbon and water cycles in agriculture can encourage land stewards to redistribute resources and attention to soil life, motivated by concerns for economic wellbeing, improved land fertility, and justice: interspecies justice, and what Faber (1998) calls ‘productive justice’: changing production to reduce environmental impacts to others beyond the farm. I will outline examples from fieldwork that suggest that while economic concerns figure prominently as motivations for farming system change towards an ecological approach to soils, subsequent shifts in bodily and technological practices towards stances of receptivity (rather than mastery), as well as participation in publics that share knowledge and articulate concern for agroecology, can incline land stewards towards forms of ‘commoning’ and ‘public mindedness’ that previously may not have been seen as worthwhile or necessary.

Roger Wilkinson, Ben Rowbottom (Department of Environment and Primary Industries, Victoria)

**Agricultural extension as a public-private partnership**

Victoria’s Minister for Agriculture has a stated aim of substantially increasing the productivity of Victorian agriculture. Yet the farmers with the greatest capacity to increase their productivity (the largest-scale producers) have evolved an advisory network composed almost entirely of private sector providers and make little use of the Minister’s department. Having recently completed a qualitative study of the information environment of large-scale farmers in Victoria, we describe the information and advisory network that surrounds these farmers and explore the implications for a government department seeking a role in increasing Victoria’s agricultural productivity.

Wednesday 26 November, Carslaw 273

**Session: Diets and Environments**

Daniel K. Y. Tan. (The University of Sydney).

**Can a healthy diet by environmentally sustainable?**
The current food production system today contributes up to 20-30% of the world’s greenhouse gas emissions and accounts for 70% of all human water use. The Australian Guide To Healthy Eating (AGTHE) recommends eating a variety of nutritious foods including vegetables, fruit, grain and lean meat to achieve a balanced healthy diet. This Guide indicates the need to increase the consumption of cereals, legumes, vegetables and fruit, while consuming meat, fish and dairy products in lesser quantities. Can a healthy diet also be an environmentally sustainable diet? Can we achieve a win-win situation by eating more foods with the lowest environmental impact and greatest benefits for nutritional health? Is food good for our health good for our planet’s health as well? In developed countries like Australia and the UK, people tend to consume more meat and operate at a higher trophic level in the food chain. Between each trophic level, there i s a loss of energy, meaning that more primary production (e.g. from plants) is required to sustain higher trophic levels (e.g. animals). Production of livestock, on average, may require 4 kg of cereal grain for the production of 1 kg of meat. The rearing of livestock for meat, eggs and dairy also generates 14.5% of total global greenhouse gas (GHG) emissions. Hence, if people consumed more crops directly, rather than their processing through livestock, there will be a positive environmental impact.

Robin Krabbe (University of Tasmania).

**The power of food and exchange: positive ecology, co-governance and sustainable health and wellbeing**

This paper begins with identifying a sustainability challenge of the possibility of humanities ecological footprint exceeding earth’s carrying capacity. Negative ecology is a theory of the evolution of the current challenge, whereby the ability of future generations to satisfy basic needs is being compromised by the ecological footprint of the current generation. Negative ecology contends ultimately that it is firstly the inherent human failure for self-control of excessive impulsive behaviours that underlies the threat to human survival. Secondly has been the attempt to address this lack of self-control by the use of dominance hierarchies, however two fundamental flaws have become apparent with this approach. The first is another inherent human trait of ‘subordination stress’ therefore a reaction to dominance, and secondly is the assumption is that somehow our business and political leaders are themselves immune from self-control failures, that is resistant to putting their own needs ahead of others. Positive Ecology is a theory that community-based forms of governance can avoid these two pernicious problems, and includes the contention that the satisfaction of balanced basic needs is a requirement for sustainability. In particular, community food...
sovereignty can combine three basic human needs; the need for interaction with nature, the need for social interaction and the need for physical exercise.

Michael Adams (University of Wollongong).  
**Wild food in the Illawarra**

In Australia, hunting for food exists on the margins of social acceptability, and operates in the interstices of the landscape. The Illawarra Regional Food Strategy was released in late 2013, with a vision for a ‘vibrant, sustainable local food system’, and a commitment to ‘supporting local community food strategies’. The Strategy did not engage with wild harvest of food, although this is significant in the Illawarra, with numerous fishers, hunters and foragers all active in the region. This paper provides empirical material on how hunted deer is used as food in the Illawarra, and by whom, as well as hunter and community attitudes to wild food.

Libby Salmon and Julie P. Smith (Australian National University).  
**Food security for infants and young children: protecting the primary producer**

Escalating global demand for milk formula has created shortages on supermarket shelves in Australia, New Zealand and Europe. Sales of formula worth US$55 billion and demand for dairy products from an expanding middle class in Asia are driving rapid expansion of the dairy industry but global and localised shortfalls in supply are predicted. By 2050 the world’s estimated 700 million infants will compete with a global population of 9 billion for food and protein from dairy products, unless improved breastfeeding practices are achieved within one generation. Breastfeeding is important to maintaining population health and has health nutrition policy support, but rates of optimal breastfeeding remain low. This paper argues that central to the concept of food security for infants and young children is security of production and provision of human milk. Reframing competition between globalised markets for infant foods (breastfeeding, expressed human milk and infant formula) within wider food security and human rights frameworks highlights the need to address key policy conflicts between health, agriculture, trade and labour domains that undermine optimal infant and young child feeding.

**Wednesday 26 November, 11.30 – 12.30, Carslaw 173**

Session: - The Post-human Turn in Agri-food Studies – Part II

Jess McLean (Macquarie University).  
**Water cultures as assemblages: Human and more than human agency renegotiating development trajectories in northern Australia**

Water cultures in northern Australia arise from, and meet, a climate of extremes that enables and constrains certain wetlandscape engagements. I see water cultures as an assemblage of biological, hydrological, political, economic, social and cultural relations that are dialectically connected to water. Water cultures in northern Australia include Indigenous water cultures, colonial water cultures, conservation water cultures, modernist agricultural water cultures and more. Human and more-than-human agency unsettle the furthering of modernist agricultural water cultures, while sometimes also facilitating these, creating paradoxic spaces (Rose, 1993) containing tenuous and resilient places. The ‘natural’ resources, including food, that are borne of these human-natural systems are an assemblage of multiple factors, including water cultures, and attest to a place already busy with productive practices that invite our attention. In light of the Green Paper put forward to advance ‘northern development’ by the current Federal Government, I ask if it’s more appropriate to step back from top-down decision-making and towards an open dialogue with the complex human-natural systems already in place. Beyond this case, paying heed to the agency of these places and the more than human realm is relevant to any top-down development intervention where absences of modernist technologies are interpreted as deficient. This paper examines a particular place, the Ord catchment, and its regional context, to delve into the agency of water and biospheres in refusing to be cooperative with the colonial imperatives of a state trying to settle. In doing so, I invert the prevailing paradigm of failed northern developments, and argue that the ongoing efforts to intensify Agrifood systems that align with neoliberal, modernist frontier expansion are resisted by more-than-human agency and renegotiated by Indigenous peoples. Here, I cut across the binaries of human and more-than-human agency to dissect processes of changing water cultures in a geographic framework.

Richard Le Heron (Auckland University) (presenter), Gordon Winder, Ludwig-Maximilians-Universitat, Munich, Germany, Nick Lewis (Auckland University).  
**Land-coast-ocean and the reach and territorialisation of biological-economic relationalities**

Research dialogue in three interconnected research collaborations, Biological Economies (investigator inspired, Marsden funded, New Zealand), Marine Futures (mission oriented, Ministry of Business, Innovation and Employment, New Zealand) and the Blue Economy Research Collaboration (a new collaboration Ludwig-Maximilians-Universitat, Munich and University of Auckland) has been edging towards a new organising proposition – ‘Inventing land-coast-oceans as a new policy and science object’. The presentation will provide reflections on issues springing from such a provocation. The conceptual and practical imaginary both problematizes and is in itself problematic: It profoundly disturbs notions of non-human, human and non-human relations, takes seriously the inevitable clashing of and learning from metropoleologies of knowing and is open to actively engaging in the challenges of enacting new knowledge assemblages. It foregrounds new interpretive difficulties and tensions that will be met as biological-economic relations in different contexts are contested and reframed. It presses exploration and interrogation of what knowledge would be required to support conceptions of land-coast-ocean (especially in the New Zealand context), what institutions would assist the generation of new knowledge, what early experiments in thinking through boundary relations might be especially productive, what translation challenges might lie ahead to enable such a complex object to actively shape knowledge production practices and what styles and kinds of conversation might facilitate generative research directions and policy processes.
Agri-food futures: heterogeneous associations and processes of “spacing” in a more-than-human world

For most people the food we eat and the means of its provisioning represents one of our most immediate and profound relations and impacts to the natural environment. Global issues such as climate change, environmental degradation and food security accentuates the need to find sustainable solutions for how to organize farming and the wider agro-food system of the future. Recently the advent of the notion of the Anthropocene and its influence across the natural (Steffen et al. 2007) and social sciences (Latour 2013) can be seen as an indication of a growing recognition of the intimate and entangled relationship between people and planet and this poses a challenge to rethink our conceptual frameworks and mental models. Materialist approaches which recognizes the heterogeneous associations (Murdock 1998) making up the more-than-human (Whatmore 2006) world offers a handle to address this challenge and progress our thinking about matter, knowledge, technology and politics in agro-food studies. I argue that the turn to materiality provides key insights for engaging critically with the issue that characterize the food system today and that it is crucial for re-conceptualizing the “utopia” of the food system (Rosin 2013) which is a key issue in order to move towards a sustainable food system. With materialist approaches the notion of space is also altered. However, while there has been some progress towards a relational conception of space in agro-food studies Euclidian or absolute and/or relative notions of space still prevail within the field and following Massey (2005) I asserts that much can be gained by opening up for imaginative conceptions of space. Drawing on post-structuralist geography (Murdock 2006) and science and technology studies (Law 2008) this paper explores processes of “spacing” and the subsequent discussion seeks to advance further a relational understanding of space as a means for more lively, heterogeneous and progressive thinking in agro-food studies. The recent Biological Economies project (Rosin and Lewis 2013) provide rich examples and cases that can be drawn upon in the analysis and these are related to findings from my own research conducted in Denmark.

Johanna Wong (University of Sydney) (presenter), Robyn Alders (University of Sydney), Joaniat Jong, Antonino do Karmo, Brigitte Bagnol (Witwatersrand University, South Africa), Nick Harris. The intersection of food security, gender and village poultry in Timor Leste

Food security has been a long-standing concern in the largely subsistence-farmed country of Timor-Leste and levels of undernutrition remain unacceptably high, with the 2013 Timor-Leste Food and Nutrition Survey showing a stunning prevalence of 50.2% in children between 0-59 months. While there have been significant investments into crop production, there has been far less attention on improving livestock production, possibly due to the lack of resources and inputs available to the mostly rural population. As almost all rural families own poultry, investigation into potential improvements in the extensive poultry system is a means to improve household food security that reaches the members of society most at risk of undernutrition. Although regional differences exist, in general women in Timor-Leste are often regarded as having a role secondary to men. According to the 2010 Timor-Leste Demographic and Health Survey, and the 2007 Timor-Leste Survey of Living Standards, women are less likely to hold leadership positions, and have lower levels of education compared to men. In society, women are viewed as having their place within the home and are often responsible for household nutrition, having the duties of obtaining, preparing and distributing household food. Men and women contribute to household food security in many ways, however in Timor-Leste, ownership and care of family poultry is generally considered the responsibility of women and children. As the poultry are raised extensively, the inputs required are minimal and do not detract from the resources dedicated to feeding the family. In addition, the minimal time required for their care allows women to raise livestock while still contributing to childcare and family farming activities. The poultry raised are a ready source of cash when needed, and chicken meat and eggs are an excellent source of high quality protein and micronutrients. International research has shown that women are more likely to use their resources to improve the education, food security and nutritional status of their children, and that targeting women in nutritional interventions can lead to an improved outcome in childhood nutrition. Additionally, specific focus on gender issues within projects improves the sustainability of positive food and nutrition security outcomes. The joint Australian Department of Agriculture and Timor-Leste Ministry of Agriculture and Fisheries “Village Poultry Health and Biosecurity Program” is aimed at controlling Newcastle disease in 3 pilot villages in Timor-Leste and specifically targets women as well as men. This is achieved by addressing gender issues in all stages of the project from design to final monitoring and evaluation. Specific examples of this include requiring groups of women to be involved in participatory discussions, aiming for at least 50% of village vaccinators to be female, a nd ensuring women have access to extension services and educational materials used by the Program. In conjunction, research measuring the effect of improved poultry production on household food security will be conducted, aiming to demonstrate the potential contribution of village poultry to long term improvement in nutritional outcomes. By considering gender roles in improvements to family poultry production, the Program aims to sustainably address household food security, and in the long term, aims to contribute to the improved nutritional status of rural Timorese children.
John McCarthy (Australian National University).

Responding to the food security and land dilemma: the Case of Kalimantan’s Transitional Landscapes

Since 2008 we have seen the emergence of complex policy dilemmas. New vulnerabilities related to climate change, the policy neglect of agriculture, and fears of price volatility and global food shortages present complicated political issues. Increasing demand for agro-industrial commodities also drive the rapid growth in demand for land, particularly in agroforest and forest areas of southeast Asia. At the same time new developmental agendas support the large scale production of staple crops as a means to deal with the threat of food insecurity. This occurs amidst competing and contradictory policy formulations regarding food security, food sovereignty and food self-sufficiency. This paper will consider the case of Indonesia. Here national policies seek to address the food security problem by simultaneously pursuing the development of corporate driven food estates alongside programs to extend the green revolution into marginal outer island landscapes. The paper examines the effects of these policies, discusses how such landscapes are governed and examines how patterns of vulnerability emerge in these landscapes during the agrarian transition. Finally, the paper considers policy options for addressing vulnerability in these transitional landscapes.

Debjeet Sarangi & Salome Yesudas (Living Farms [NGO] India).

The Traditional Food System of Kondh Community

Kondh, an indigenous community in the Indian state of Odisha, has sustained on a diverse food system. They collect over 375 foods from forest, water bodies, village commons, and agriculture fields and cultivate more than 150 varieties of food. These foods are rich sources of nutrients and lend a sense of dignity to people. Community members have shared with us their experiences on how such practices have not failed them in the most critical of times, such as famine, as shown in the famine commission reports, of the British period etc. They are now reporting a decline in the availability and consumption of these foods, due to extensive industrial monocultures, deforestation, use of pesticide in agriculture fields, mining and the proliferation of cash crops— all constituting a relentless assault on the biological and socio-cultural habitats of an enormously rich diversity of food system, evolved over millennia. When there is a loss of habitat, it leads to a loss of availability of such foods, culture and identity. Efforts are being made to strengthen the cultural linkage between communities, local traditional food systems and habitats, revive the agro and forest biodiversity, dialoguing between community elders and youth, reclaiming the commons etc. are a few strategies in the efforts to strengthen the traditional food system.

Julia de Bruyn (The University of Sydney, presenting author), Robyn Alders (The University of Sydney), Brigitte Bagnol, Ian Darnton-Hill, Mu Li (The University of Sydney), Wende Maulaga, Hilda Lumbye.

Family Poultry and Food Sovereignty: Exploring locally-appropriate, sustainable solutions to child undernutrition in sub-Saharan Africa.

The role and importance of small-scale farming systems has received greater attention in recent years, with increasing recognition of their potential contribution to food and nutrition security in developing countries. A majority of households in rural and peri-urban regions of sub-Saharan Africa keep small scavenging flocks of poultry. Indigenous breed poultry are adapted to local conditions and usually preferred over commercial breeds. Although production levels are low, inputs are also low to non-existent – making family poultry a potentially accessible asset to the poorest members of society. The major constraint to the productivity of such systems is disease, most prominently Newcastle disease (ND). The advent of a thermotolerant vaccine and development of a sustainable model for vaccination has allowed poultry-owners to avoid the devastating losses associated with ND and presents the opportunity for flock size to increase substantially within a short period of time. As chicken numbers increase, families are faced with financial and socio-cultural decisions about their sale, management and consumption. Published literature has explored issues surrounding undernutrition in the African region and there is much data demonstrating the value of poultry products as highly-nutritious food sources. It is proposed that the consumption of eggs and chickens represents a viable means of addressing chronically high levels of undernutrition. In recognition of the crucial “1000 day” window of opportunity for influencing growth, beginning at conception, a particular focus is given to the diets of young children and women of child-bearing age. Research into the impact of sustainable ND vaccination programs in remote communities in Tanzania and Zambia is following changes in chicken numbers, and resulting trends in their sale and consumption. This work aims to assess the effects of production increases in family poultry systems while addressing the “food utilisation” aspect of food security, by providing families with culturally-sensitive and locally-appropriate guidelines on how to address nutritional needs within their household. It is hoped that evidence demonstrating the impact of agricultural (livestock and plant) interventions on human health will support a food sovereignty approach to reducing undernutrition globally.

Wednesday 26 November, 13.45 – 15.15, Carslaw 173

Session: The Post-human Turn in Agri-food Studies – Part III

Michael Carolan (Colorado State University, USA).

Gastronomic Populism

This presentation draws upon one chapter of a near-completed book project. In the chapter the author experiments with notions of “governance”, “care”, “politics”, and “affect” in a metaphysics that’s highly decentered and radically relational. Drawing upon a motley crew of actors—bacteria, fungi, senior-level executives of major food companies, “fermentologists”, community food activists, and food scientists, to name just a few—this presentation seeks to unsettle what it means to do food democracy in a world that’s more-than-representational and that’s populated by more-than-peoples publics.

Erena Le Heron (Auckland University).

‘Sleeping’ materialities and disruptive non-human agency: Making visible vibrant materialities of the “giant, carnivorous, endemic land snail” Powelliphanta Augusta

In a recent paper Whatmore (2013) argues environmental knowledge controversies force people to re-examine the materialities and discursive fabric of everyday lives. This topic has become the object of a growing diversity of disciplinary approaches to enlivening the post-human. The paper reports on the meeting of the ecological and economic in the snail controversy of 2005 – 2011/ongoing. In the New Zealand context there have been few studies directly attempting to interrogate the assembling of controversy, yet the meeting point of biological and economic processes is increasingly tense and
rarely still. Many non-human materialities have been ‘put to sleep’ as everyday life and business-as-usual effectively tunes out ecological processes. The paper explores with respect to plural narratives of controversy and P. augusta aspects of methodology that enable vibrant materialities to be made more visible, and thus give insights in to the enactment of ecological/economic relations. Discussion first covers social sciences’ contributions in making visible institutional framings and territorialisations that are integral to controversy emergence, second, the place and work of metrics in the controversy assemblage, third, the extra challenge of making visible unappealing and seemingly insignificant biota and fourth, the situated and contingent nature of controversy assemblages. The methodological exploration undertaken in the enquiry provides a heuristic resource to reflect upon how agri-food research might engage with similar environmental knowledge controversies.

Bethaney Turner (University of Canberra).
Alternative Food Networks, thing-power and ecological connections: An exploration of how food disrupts anthropocentric thinking

The cultivation of moments of “naïve realism”, in which the vital materiality of non-humans is experienced, may provide the basis for constructing new ecological cultures that encourage the adoption of more sustainable and ethical lifestyles. Through the use of ethnographic data, this paper explores how participation in Alternative Food Networks (AFNs), from community gardens to farmers’ markets, can facilitate these very moments in which the thing-power of non-humans, and the connectedness or enmeshed relationships of humans and non-humans, is encountered. AFN’s can, of course, simply perpetuate anthropocentric thinking through a focus on social and economic relations premised on conceptions of “care” for producers, community and the environment. However, here, food is shown to be capable of disrupting the dominance of these economic and social representations through its very own agentic qualities. A more attentive approach to food, and the various assemblages through which we encounter it, ourselves, and the broader non-human world, may provide a framework for rethinking human/nature relations by highlighting the very limits of human control.

Cassandra McTavish (Massey University).
Blurred divisions of food and being: Making and remaking dairy cows in the Manawatu

Visible in the post-human turn in the social sciences, the question of human responsibility to not only acknowledge non-human others, but to burst through skin-bound humanism in the recognition of such others has come into focus. Through this thought animals de-centre human sovereignty and force the recognition that the world does not consist of separate categories of the human realm and the beastly realm, but rather that the cosmos is a shared place where all beings live together. In my research with Manawatu dairy cows it became clear that the making of the cow assemblage was not completely bound by human will, but rather an effect of the non-human agency of cows. As a common domesticated animal, a food producer and a food itself how does a cow have agency? In this paper I ask how cow assemblages emerge and are maintained. In addition I also query what cows can offer to the thinking of more-than-human, or post-human agri-food studies.

Jennifer Hamilton (NYU Sydney).
Living with the Trouble: The Value of Multi-Species Labour at Earlwood Farm

Earlwood Farm is a shared rental property on a quarter acre block in suburban Sydney, 12 kms south west of the CBD. Of the animals, six humans and three chickens have official tenure of the site, while a variety of tinerent wildlife, from lorikeys and magpies to mice, flying foxes and cats pass through the zone; innumerable spineless critters crawl, fly and squirm around the garden as well. Alongside all these creatures, hundreds of different plants grow in the ground, aided by the sun, the moon, wind and rain, as well as a range of different minerals. The aim of the Farm project is, in short, to grow food and build a community around that activity, in order to rethink how to live and work in the city. But the project requires the labours of most of the creatures living on the site. Thus, this paper co-opts Donna Haraway’s famous phrase “staying with the trouble” to theorise the Farm as a critical life-project designed to “live with the trouble” of labour time and value in a multi-species context. In the first instance, the “trouble” is that the human labour at this domestic Farm is not valued under capitalism, and tasks that are remunerated take the humans away from this site each day. Secondly, the value of the work provided by the other creatures living at the farm is not recognised by the system at all. We urgently need to value the labour of more-than-human others because it is crucial for life on earth, but is it worth rethinking how to value such labour within capitalism? Should the chickens and basil get a pay slip? Or, should we be trying to work towards models that slowly erode that system of value? What does the Earlwood Farm experiment reveal in this regard? Using the work of Michael Marder and Jane Bennett to activate the agency of the more-than-human workers at the Farm, this paper aims to radically rethink urban agricultural labour in the Anthropocene.

Wednesday 26 November, 13.45 – 15.15, Carslaw 273
Session: Digging into Land: Diverse Incorporations of Land into Livelihoods and Food and Nutrition in South East and South Asia

Krishna Shrestha, Hemant R Ojha, and Rahul Karki (University of New South Wales).
The forest-food paradox: Rethinking Nepalese community forestry in the face of food insecurity

Nepal is facing escalating challenge of food insecurity, with nearly 3.4 million people identified as food insecure in the recent years. Being an integral component of rural livelihoods system, the forest sector cannot afford to ignore such national development challenge. Community forestry has a particular role to play, as the poor have limited access to private land for food cultivation. This paper analyses what we term ‘forest-food paradox’, as reflected in Nepal’s forest governance, and then explores ways to reframe community forestry system. It is based on a review of forest governance literature, policy documents, recent fieldwork in Lamjung and Kavre districts. We first explicate the forest-food paradox. On the one hand, communal land has been found to be crucial to the livelihoods of the poorest households. On the other hand, the current policy and practice of forest governance continue to promote natural forest vegetation without paying attention to food crops. The recent forestry policy emphasizes ‘forestry for prosperity’ but still continues to reinforce conservationist approach that denies any linkage between forest and the food security agenda. Secondly, we trace the roots of this
paradox in the underlying institutional regimes of agriculture and forestry, identifying drivers to food insecurity. Using examples, we show that food security outcomes depend on how forest and agriculture are managed as unified systems. Based on this analysis, we conclude that conservative orientations that persist even in the community based forest management are detrimental to food security in the developing world, and there is a need for urgent and fundamental reversal in the way forest management is handled in isolation from the agenda of food security.

Jeff Neilson (The University of Sydney).
Land, livelihoods and the Agrarian Transition in Indonesia

Indonesia is undergoing a profound agrarian transition. The importance of agriculture, both in terms of contribution to the national economy and as a livelihood, continues to decline. Yet, a powerful discourse around Indonesia as an ‘Agrarian Nation’ continues to pervade national politics and public debate. Food security and land reform were key themes during this years presidential campaign. This paper will examine Indonesia’s contemporary agrarian transition, and how it intersects with debates around land access and food security.

Mark Vicol (The University of Sydney).
Food security, rural livelihoods and agricultural change: evidence from a case study of potato contract farming in Maharashtra, India

Despite decades of sustained economic growth, food insecurity remains a seemingly intractable problem for many households in rural India. In recent years, food security has been elevated to pre-eminence in the political discourse of India with the passage of the much-debated National Food Security Bill (2013). At the same time, there has been a growing recognition among researchers that achieving food security in rural areas is not simply about solving production or distribution problems, but rather addressing broader questions about household livelihood security (Pritchard et al, 2013). Concurrently, the majority of rural Indian households continue to rely on smallholder agriculture as their primary livelihood activity. The nature of agriculture, however, is changing in India, as liberalisation policies open up the sector to domestic and foreign capital. One such change has been the spread of contract-farming schemes. Where they operate, contract-farming schemes are changing the dynamics of smallholder agricultural production, as land owning households are increasingly exposed to modern inputs, technology and markets. These schemes present new opportunities for some households, yet it is unclear how these changes will influence patterns of social differentiation at various scales. This paper discusses the nexus between household livelihoods, food security and modernising agriculture in rural India, using evidence from a case study of a potato contract-farming scheme in Maharashtra. The paper argues that by understanding agricultural change through a rural livelihoods lens, we can reveal the nuances of how rural households negotiate change specific to time and place, and who is in a position to benefit from such change. If we understand food security as primarily a livelihoods issue, then understanding how modernising agriculture is influencing patterns of social differentiation will be critical to the long-term food and livelihood security of India’s most vulnerable rural households.

Gina Koczberski (Curtin University) [presenter], George N. Curry (Curtin University), Veronica Bue (PNG Unitech, Papua New Guinea), Emmanuel Germis (PNG Oil Palm Association, Papua New Guinea), Steven Nake (PNG Oil Palm Association, Papua New Guinea), Paul Nelson (James Cook University, Cairns).
Adapting to land shortages for food gardening: a case study from Papua New Guinea

This paper deals with rising land pressures among oil palm smallholders in PNG and examines the ways households are responding and adapting to shortages of garden land. In the oil palm growing areas of PNG, food production is a key strategy for maintaining household food and income security, and nearly all smallholder families cultivate food crops for home consumption and cash income. For the majority of women, local marketing of garden foods is their most important income source after oil palm, and food gardens provide an important buffer against the vagaries of fluctuating oil palm prices. However, rising population and land pressures threaten to undermine household food security. The average population per land holding has more than doubled since the early 1970s and access to garden land has declined significantly over the past 15 years as families plant more of their land to oil palm. Yet despite these trends, virtually all smallholders continue to grow sufficient food for their families. The paper will outline the diverse strategies smallholders have developed to maintain food security. The paper highlights the importance of farmer-driven innovations and the role of social and kinship networks in maintaining household food security. The paper shows how place-based studies provide a useful tool for exploring household coping and adaptation strategies in food security research.

Yayoi Fujita Lagerqvist (University of Sydney), Sithong Thongmaniowe (National University of Laos), Michael Dibley (University of Sydney), Jessica Hall (University of Sydney), Somphou Sayasone (National Institute of Public Health, Laos), Silinthone Sacklakham (National University of Laos), Natalia Scurrath (University of Sydney), Philip Hirsch (School of Geosciences), Khamlala Phanvily (National University of Laos).
Critical linkages of development, food security and livelihood in Lao People’s Democratic Republic

This panel examines critical linkages between resource development, food security and livelihood issues in mainland Southeast Asia using a case study from Lao People’s Democratic Republic. Three papers in the panel will discuss key findings from multi-disciplinary research carried out in Lao PDR funded by the Australian Centre for International Agricultural Research (ACIAR). The panel will highlight patterns of rapid resource degradation in one of the critical river basin in Lao PDR, the Nam Ngum river basin, using spatial data analysis. It also demonstrates resource degradation and its association with a series of resource development (i.e. hydro-power, mining and plantation) and demographic changes in the river basin. The panel will also highlight patterns of food security and nutritional status across the river basin based on quantitative household survey carried out in the river basin, and demonstrate its association with household wealth and key livelihood assets including land, livestock, financial capital, and social network. Finally, the panel will highlight the dynamic aspects of livelihood adaptation processes based on in-depth qualitative interviews and point out challenges/gaps in the current government policies that aims to facilitate improved livelihood opportunities for the rural poor.
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