



ENVIRONOMICS

DECEMBER 2009

CONTENTS

- 1 Director's Note
- 1 Launch of Australian Centre for Biosecurity and Environmental Economics
- 1 AARES Invasive Species Symposium
- 2 Sonia Akter visit to United States
- 3 Introducing Jacqueline de Chazal
- 3 Lisa Lee Tawain secondment
- 4 2010 Hub Workshop in Adelaide
- 4 AARES Annual Conference details
- 4 CERF Conference and Evaluation
- 4 Hub Theme Leader Contacts
- 4 Hub Contact Details

Director's Note

The media is full of environmental economics this week with the ETS legislation failing to pass through the Senate after a tumultuous few days in the Liberal Party's history. It seems that climate change policy will now be put to even greater scrutiny. The work Frank Jotzo is leading in the Climate Change Theme of the Hub will be key to the debate to come.

There has been action a plenty in the Hub over the last few weeks. The Invasive Species and Biosecurity Symposium was held in association with the Australian Agricultural and Resource Economics Society at ANU and Hub members from ANU, UWA and CQU were active participants at the bi-annual Choice Modelling Workshop held in Christchurch NZ and organised by Lincoln University.

This will be the last issue of Environomics for the year. Next year will see the majority of the EERH suite of projects producing their final outputs. Plans are well in hand to see these outputs exposed to the policy arena. In February, the Hub will hold its annual workshop, this year in Adelaide.

cont'd Page 2

Minister launches AC-BEE, Australian Centre for Biosecurity and Environmental Economics at the Crawford School at ANU



Federal Environment Minister, the Hon. Peter Garrett launched the Australian Centre for Biosecurity and Environmental Economics at the new Crawford building on Monday 23 November. The Centre will be led by Director, Tom Kompas and has developed out of his Hub projects where it will sit as a research unit under the Crawford School of Economics and Government at ANU.

AC BEE's mission is to lead Australia and the region in biosecurity and environmental economics research, with an emphasis on policy applications. The Centre's specialty

is economic approaches to protecting the environment and plant, animal and human health from invasive species. It will also provide broad expertise in applied research on environmental economics and natural resource management as a whole. AC BEE maintains a central focus on engaging with and assisting the public policy process.

A very successful symposium on Invasive species was held jointly between AARES and the Hub in September attracting a number of speakers. The full details of the Symposium can be found at http://www.crawford.anu.edu.au/research_units/eerh/workshops/workshop_1009.php



This will be an opportunity for some of the highlights of the Hub's research to be presented and discussed. Later in the year, an Economics and the Environment Network (EEN) conference will be sponsored by the Hub to ensure engagement of the policy community and fellow researchers with the hub projects' outputs.

Let me close by wishing all our "environomists" a happy and peaceful festive season.

Jeff Bennett



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Colorado roaming: Sonia Akter takes her research on the road

Sonia Akter, ANU

I recently travelled to North America to present my research work and to build networks with researchers. My visit was to University of Colorado at Boulder which is located on the foothills of the beautiful Rocky Mountains, forty km North-West of Denver. My host there was Nicholas Flores, Chair of the Department of Economics. Nick invited me to give a seminar at the Institute of Behavioral Economics where he is involved as a Faculty Research Associate. I presented a paper titled 'Estimating non-market values under scenario and policy uncertainty: the case of climate change mitigation in Australia'.

From Boulder, I travelled to Fort Collins which is about 75 km North of Boulder to present the same paper at the Department of Agricultural and Resource Economics of Colorado State University. Professor John Loomis was my host there. A large audience turned up for the seminar. I am not sure if that was because of the delicious pizzas they offered or because of their genuine interest in the topic that I was presenting. After the seminar, I had the pleasure and opportunity to meet a set of enthusiastic graduate students there who wanted to share their exciting research ideas with me.

After Fort Collins, I flew to Edmonton, the state capital of Alberta, Canada. The Canadian Resource and Environmental Economics (CREE) Study Group was holding its 19th meeting there. The University of Alberta was the host of this event.

Prominent environmental economists from all over North America flew in to present their work. There were two sessions on Stated Preference (SP) methods on each day of the conference. Trudy Cameron, Reed Johnson and Diane Dupont were amongst the presenters. Coincidentally, they all presented their work on Choice Modelling (CM) of health risk mitigation.

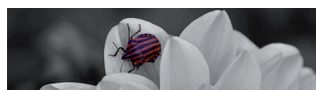
Peter Boxall, Chairman of the Department of Rural Economy at the University of Alberta, invited me to give a seminar right after the CREE meeting. I presented my latest working paper titled 'A choice modelling of uncertain environmental outcomes'. The paper tests a Bayesian information updating model and examines household preferences for climate change mitigation policy in Australia.

I have learnt a great deal from my visit. Most important of all is that accounting for uncertainty in economic policy analysis is a cutting-edge issue. Particularly, SP researchers have become more aware of the complex dynamics and role of subjective and objective uncertainty in estimating the values for non-market goods and services. Psychological theories and theories of behavioural economics are increasingly being used to explain respondents' choices in SP studies. However, the measurement of subjective uncertainty and communication of objective uncertainty remain the key challenges facing researchers.

On the methodological front, the CM technique seems to have gained more popularity over the contingent valuation (CV). Yet, some debates over the technical issues concerning the CM technique e.g. number of choice options to be included in each choice task, experimental design technique, econometric estimation and modelling approach, appear to remain unresolved. Increasing amounts of resources and research efforts are being directed to shed light on these debates and to improve the CM technique further.



With Professor John Loomis at the Colorado State University



AC-BEE website
<http://www.acbee.anu.edu.au/>

Uncertainty, Ethics and the Economics of Climate Change



Professor Rich Howarth of Dartmouth College, USA, speaking at the Innovations Lecture Theatre on 4 November. The video and powerpoint of his presentation is available at : http://www.crawford.anu.edu.au/research_units/eerh/index.php

Policy driven climate change adaptation in Australia: from theory to policy to practice

Dr Jacqueline de Chazal,
EERH & Resource Management
in Asia Pacific Program, ANU



In July of this year Jacqueline started working on a new EERH sub-project with Dr Frank Jotzo called "From policy to practice in climate change adaptation: an examination of policy-driven adaptation in south-east Australia and some consequences". The project examines the evolution of policy driven adaptation in Australia, and includes an analysis of the types of policies that are emerging at national, state and local government scales and their relationships. A detailed examination is being made of the Federal government initiative, the 'Local Adaptation Pathways Program'. An evaluation of several adaptation measures that are underway as a consequence of this programme is being undertaken, including how faithfully relevant policies are being implemented, how the target population (particularly rural landholders) have responded, and an examination of any benefits or adverse consequences. The project plans to look in detail at instances of local applications. She has worked on a range of topics in this area including ecosystem health, biodiversity, vulnerability, and ecosystem services, particularly in relation to assessing the impacts of climate change. More recently she has worked in the area of community engagement in relation to biosecurity. Jacqui has contributed to the 2007 Working Group II Impacts, Adaptation, and Vulnerability, the Fourth Assessment Report of the Intergovernmental Panel of Climate Change (IPCC), the Millennium Ecosystem Assessment (MEA), lived and worked in Australia, France, Belgium, England

Managing Monkeys Lisa Lee in Taiwan

Dr Lisa Lee, Post-doctoral Fellow, Centre for Applied
Economic Research, UNSW



Monkeys in Taipei Zoo

Drawing on her expertise accumulated over years of studying economics, Lisa took on a two-month secondment at the Taipei Zoo and found out what it was like to literally shovel elephant dung. Luckily, as an educator she spent most of her time on animal conservation for native Taiwan species, in particular the Formosan Macaques (a sub-species of monkeys). The problem with macaque populations is akin to kangaroos in Australia, where their large numbers are causing environmental damage and competing with farmers for resources. Lisa was able to offer her research expertise and understanding of environmental management policies to help devise economically-viable, sustainable solutions which balance the needs of the farmers and the macaques.

There are significant economic implications associated with their over-population. Macaques cause significant economic hardship on the hill-side growers since up to 90% of the fruit can be lost in a macaque raid. Social decline is also a problem as younger generations leave for the city since the family business is no longer profitable. Further complications arise because many of the fruit farmers substitute for crops less favoured by macaques, but these crops are not always approved by the county because it can cause soil destabilisation. Therefore, switching to more viable crop alternatives makes the farm an illegal operation, disqualifying them from receiving government aid. The government provides subsidies to farmers for crop losses and also provides tools to deter the macaques such as fire crackers and sling shots. In this sense, the economic costs are largely socialised. The solution proposed was to set up alternative feeding areas to lure macaques from farm areas, which can generate tourism revenue, improve the cost-effectiveness of government expenditures, reduce opportunity costs for farmers and provide a sanctuary for the macaque population.

Lisa liaised with county officials in problem areas to discuss the possibility of setting up such tourist areas, at a location bordering the macaques' territory furthest from farms which share the same land.

Jacqueline de Chazal in summary

Jacqueline de Chazal has a background in ecology however an interest in the role that social values play in determining evaluations of ecosystem change has led her to widen this focus to include the social sciences. She is particularly interested in analysing the typically implicit assumptions behind normative terms used in environmental management to better articulate and accommodate their inescapable social context(s).

cont'd from Page 3 **Jacqueline de Chazal** and Africa, and has collaborated with a range of others in philosophy underpinning multi-disciplinary problem solving. Her specific interest in this current project is to examine assumed multiple and differing impacts of climate change and to understand how this influences individuals' adaptation responses. Promoting lasting community engagement with a programme of adaptation to climate change will require an understanding of the limits to a community's capacity to shift livelihoods as an adaptation response, and their often conflicting perceptions of climate change and its differential impacts, and their associated choices of adaptation response. Some key opportunities include promoting 'bottom-up' adaptation initiatives, better understanding differential impacts and deemed appropriate adaptation responses, and in doing so advance adaptation policies and associated community responses to climate

AARES Symposium on Invasive Species and Biodiversity



Professor Quentin Grafton acknowledging the sponsors of the Symposium held at University House, ANU in September

2010 AARES Annual Conference - and Environmental Economics Research Hub Workshop - Adelaide

The 2010 Environmental Economics Research Hub Annual Workshop will be held again in conjunction with the AARES Annual Conference. This will be an opportunity for policy makers to work closely with project leaders in themed areas as research results from themes are presented.

The workshop will be held next year on Tuesday 9th February as a pre-conference workshop. The AARES Conference will be held in Adelaide and registration can be made through their website at:

<http://www.aares.info/conferences>

2009 CERF Conference at Australian Academy of Science



A focus of the Conference was group workshops looking at successes and providing feedback for DEWHA regarding the next iteration of Commonwealth Environment Research Facilities Program after 2010

HUB THEME LEADER CONTACTS

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