

ENVIRONOMICS

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Director's Notes

In the weeks before Christmas, I have been engaged in two research projects in the Asia-Pacific region: one in China and the other in Malaysia. The project in China is one that I've been leading for the past six years under Australian Centre for International Agricultural Research (ACIAR) funding. It involves the assessment of land use changes in the western provinces of China that are designed to improve environmental conservation. The second is in Malaysia, where an international team is investigating improved tropical forest management under United Nations Development Program (UNDP) and International Tropical Timber Organisation (ITTO) funding. For that project I was part of an International Advisory Panel delivering a report on progress to date.

These projects are both demonstrating the contributions that economic analysis can make to improving the environmental conditions of developing countries in our region.

They also show the wider impacts of the research being done within the Environmental Economics Research Hub. The advances being made by the researchers working in the Hub are directly transferable to the analysis of issues that are challenging the developing countries in our region. (Page 2)

Knowledge Broker discussions

Representatives from each of the research Hubs funded under the Commonwealth Environment Research Facility (CERF) Program meet together in Canberra in mid September to discuss ways in which the Hubs could work together in disseminating their research findings in a targeted and effective way. The meeting was attended by Nic Bax - Marine Biodiversity Hub, Suzanne Long - Marine

and Tropical Sciences Research Facility, Kate Golson and Ruth O'Connor - Tropical Rivers and Coastal Knowledge, Cath Reed and Helen Eddy-Costa - Taxonomy Research and Information Network, Geoff Park - Landscape Logic (LL) and INFFER, Liam Gash LL, David Salt - AEDA, Meredith Bacon - EERH and staff from the CERF team.



Hub members at the meeting of Hub Knowledge Brokers in Canberra following the CERF Conference in September. The group later met with DEWHA staff and consultant Andrew Campbell to discuss the CERF Portal project and other potential avenues to promote Hub outcomes.

In the China project, an auction mechanism for the allocation of funds to farmers willing to engage in land use change is being developed. This is a radical idea in a country coming to terms with the impacts of capitalism. However it is an idea that has already been applied widely in Australia and is currently being refined in Theme A Hub projects. This Australian experience is helping the Chinese authorities to move straight to the cutting edge of developments in this field.

The Malaysia project involves a number of leading US researchers who are assisting the Malaysians to integrate monetary values of environmental goods and services into forest management planning. Developments in this field of non-market environmental valuation are also being made by Hub projects in the Valuation Theme. Again, Australian research being conducted in the EERH is making a contribution not just to the Australian community but also to those in the wider Asia Pacific region.

The coming year promises to be an exciting one, with many of the EERH projects beginning to 'bear fruit'. There have been a lot of data collected over the past year across the various components of the Hub. The analysis of those data will be the focus of activity in the months to come and there is a lot of anticipation building as preliminary results are starting to come to hand.

I'd like to take this opportunity to thank all those involved with the EERH for what has been a year packed with action, challenges and rewards. Have a great break over the Christmas New Year period, and all the very best for 2009.

Jeff Bennett, Professor, Crawford School of Economics and Government, ANU e: jeff.bennett@anu.edu.au

Allocation Challenges Public forum



Dr Regina Betz
(CEEM/UNSW)

With all the frenetic industry lobbying activity going on in Canberra over the Emissions Trading Scheme (ETS), which the Federal Government is preparing to introduce, one is reminded of Hubert Humphrey's famous quotation that "the right to be heard does not entail the right to be taken

seriously".

With this insight in mind, EERH project leader Regina Betz of the Centre for Energy and Environmental Markets at the University of New South Wales (UNSW), convened a public forum to give some airplay to those community interests likely to be affected by the Emissions Trading Scheme which are not necessarily represented by professional lobbyists in Canberra on a daily basis. The forum took place at UNSW in Sydney and attracted well over 100 participants, predominantly from academia, government, and non-government organisations concerned with social welfare.

The theme of the forum was the distributional impacts of different methods of allocating emissions permits under the Australian ETS. By offering some broader (and less subjectively motivated) perspectives on the ethical, economic and technological implications of different allocation methods, the forum made an important contribution to the policy debate about allocation.

A valuable feature of the event was the ample space provided for discussion between presenters and the audience, with several good and novel ideas emerging.

The first speaker on the day was Alec Cameron, Dean of the Australian School of Business at UNSW, who welcomed guests. He underlined the value of academia in providing well-reasoned objective contributions to the Climate Change debate, which is naturally characterised by a multiplicity of groups with strong private interests informing their comments.

Regina Betz gave an introductory presentation which described the history of allocation proposals leading up to the most recent proposals of Professor Garnaut's Draft Report and of course the Government's Green Paper. She set the scene for the discussions to follow by highlighting the manner in which grandfathering, benchmarking or auctioning permits imply very different distributions of wealth to different community stakeholders.

Cameron Hepburn of the Smith School of Environment and Public Policy at Oxford University then spoke, giving an eloquent summary of the different challenges and issues raised by allocation. Importantly, he noted the trade-offs between 100% auctioning and revenue recycling – which would be the most consistent alternative with economic efficiency, with the polluter pays principle and also with the idea that the atmosphere belongs to each member of the community equally – and on the other hand avoiding the real threat of carbon leakage and ensuring buy-in to the ETS by business.

In the discussion following Cameron's talk an interesting question was raised about the potential of compensation payments to protect exposed industry to mask the price signal and potentially prevent the marginal firm from shutting down. In light of this a strong argument was put forward that Border Tax Adjustments were a superior way of

protecting industry and also removing a strong disincentive for other countries to avoid pricing carbon.

Damian Sullivan of the Brotherhood of St Lawrence discussed the fact that energy and emissions intensive goods constitute a greater share of the budget for low income earners and that the distributional impact of the ETS was therefore regressive in the first instance. He emphasised his anxiety that low income earners be compensated from the beginning of the ETS – either in the form of cash or direct assistance with energy efficiency measures – rather than suffer the cost increase only to be compensated at a later date.

David Richardson of the Australia Institute spoke about the modelling the Institute has done on the impacts of a carbon price on the budgets of local and state governments.

Jack Pezzey of the ANU spoke in some depth about the economics underlying some of the allocation claims made by industry in the media. He emphasised that free permits to industry will not lower the costs passed onto consumers for products. He argued that any free allocations made should also be done on a once and for all basis to prevent perverse incentives to increase emissions by firms in search of higher allocations in future. He also argued that compensating industry for loss of value was regressive in the sense that it transferred wealth from the community, to whom the atmosphere belongs, to the richest 1/5 of the population which own 2/3 of the shares in Australian companies and the remaining 1/3 will go outside of Australia.

Erwin Jackson of the Climate Institute in his presentation made the interesting suggestion that 10% of revenue from the auctioning of permits go to fund adaptation by other less developed countries and towards achieving a global agreement more generally. Offering a variation on Mr Jackson's perspective was Owen Pascoe of the Australian Conservation Foundation. He suggested that in addition to international payments, 5% of auction revenue could be allocated to environmental stewardship and 10% to helping workers move from dirty to green jobs and providing skills training for new types of workers required in the low-carbon economy.

Iain MacGill of the Center for Energy and Environmental Markets spoke from an engineering perspective about the need for a framework conducive to innovation in low emissions technologies. He emphasised that money was not enough, but that greater institutional structures than presently exist were required to manage this task. He also mentioned the need for policy insurance and to this extent was supportive of the MRET scheme working alongside the ETS.

Finally, Hugh Saddler, the Managing Director of Energy Strategies, gave an interesting talk on energy efficiency and its role in reducing emissions and costs for consumers. He

expressed anxiety about the lack of skilled workers required to go into individual homes to teach people about how to live more energy efficiently – which he said was necessary. This then expanded into an interesting discussion about the relative roles which demand side efficiency measures can play compared to supply side measures. Frank Muller suggested that the current market structure gave little incentive for inefficient transmission to be improved and that, unless this was tackled together with the demand side stuff, it would amount to a drop in the ocean.

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Emma Aisbett - Valuing Ecosystem Services in the Agricultural Sector



Emma Aisbett is a Lecturer at the Crawford School of Economics and Government and a Research Fellow at the Economics Program of the Research School of Social Sciences at the ANU.

Emma has an interdisciplinary background with a Bachelor in Chemical Engineering from UNSW, MSc in Environmental Change and Management from Oxford University, and PhD in Agricultural and Resource Economics from the University of California at Berkeley.

Her research interests include environmental economics and policy, globalization and development. She teaches a new Master selective course for the Crawford School on Economic Globalization and the Environment and will be one of a small team of Faculty working with students in the innovative new Case Study component of the School's core Governments, Markets and Global Change course.

Intact ecosystems in the vicinity of agricultural production areas can provide beneficial services such as clean water, better soil retention, and insect control. The appropriate level of investment in ecosystems to provide these services is, however, difficult to determine due to the lack of information about the exact value of these services to agricultural production. The EERH is funding Emma to carry out a preliminary project to investigate ways in which the value of ecosystem services to Australian agriculture can be estimated.

While at Berkeley, Emma worked with Prof. Larry Karp – a dynamic economic theorist – on the development of an empirical State-Space model of agricultural production in

California in which environmental quality was treated as an unobserved input to agricultural production. According to Emma, the challenge for the Californian study – as it will be for the new Hub project – is the clean identification of environmental quality as an input. In particular, where the empirical approach relies on changes in production over time, to separate the effects of changes in environmental quality from those of changes in technology. This can be particularly challenging because technology is often used to substitute for lack of environmental services. Emma is confident that the Australian work will be able to go beyond the Californian study thanks to better data access made possible by the Hub's funding.

2009 EERHub Workshop Program

The next Hub workshop will be held on Tuesday 10 February in conjunction with the Australian Agricultural and Resource Economics Society (AARES) Conference as a pre-conference workshop. Details of the Conference can be found at: <http://www.alloccasionsgroup.com/AARES09>

A full program of the Hub Workshop will be available on the Hub webpage at http://www.crawford.anu.edu.au/research_units/eerh/ and will also be distributed via the Hub Newsletter email mailing list.

HUB THEME LEADERS CONTACTS

Theme A.

Establishing viable markets to achieve environmental goals

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Theme C.

Advancing Australia's capability for social and economic

analysis of environmental issues at the regional scale

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Theme B.

Climate change analysis

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Theme D.

Valuing environmental goods and services

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How can Indonesia link into carbon finance?



The Padang Cement plant in West Sumatra

Helping to make greenhouse gas reductions happen in neighbouring countries is an important part of Australia's climate change mitigation strategy. Indonesia is by far the largest emitter in our region, and big challenges await in making carbon finance work on a large scale. In recent research, Frank Jotzo of ANU and the Hub, with economist colleagues Kurnya Roesad in Jakarta and Efa Yonnedi in Padang, examined the way forward for climate finance in Indonesia's economic policy making. It is an issue also of interest to Australian policy makers and agencies concerned with international collaboration.

The project was undertaken under the [Australia-Indonesia Governance Research Program](#) with co-funding from the Hub. A [policy brief](#) was released at a high-level forum in Jakarta on December 1, and a detailed research paper is in preparation.

Dr Frank Jotzo is a Research Fellow in the Research School of Pacific and Asian Studies The Australian National University. He is the leader of two Environmental Economic Hub Projects



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