

ENVIRONOMICS

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CONTENTS

- 1 Director's Note (cont'd 2,4)
- 1 Hub Hosts EEN Symposium 22-24 Nov
- 2 PhD success stories
- 2 AARES Urban Water Symposium
- 3 New Climate Change Centre at ANU
- 3 Australian Economic History Review
- 4 Valuing Australia's Botanic Collections
- 4 Hub Theme Leader Contacts
- 4 Hub Contact Details

Director's Note

With so many policy decisions with environmental consequences being made, the significance of economics as a decision input cannot be underestimated. One of the Hub's goals is to provide guidance to policy makers not just on methods to be used in informing policy but also on techniques and approaches that can deliver misleading results. This Hub role has been demonstrated through its documentation of the problems associated with the increasingly common use of Multi Criteria Analysis. Cost Benefit Analysis has been advocated as a superior conceptual framework for assisting decision makers.

That does not preclude the prospect of CBA being misused. There will always be the prospect of analysts specifically trying to manipulate CBA findings to support their vested interests. There will also be the prospect of the technicalities of CBA being misunderstood by practitioners who are inadequately trained in the technique's use. These issues do not discredit the use of CBA. Rather they enhance its suitability as a practical tool. This is because CBA is grounded in the strength of welfare economics. Any misuse, either

cont'd Page 2

Hub Hosts Economic and Environment Network Symposium 22-24 November

The Environmental Economics Research Hub will host a three day symposium in November to mark the completion of the Hub's research agenda.

The goal of the Symposium will be to showcase the results of the Hub's 20 plus research projects to the wider profession of environmental and research economists and relevant policy makers/advisors, and provide an opportunity for researchers from outside the Hub to highlight their findings.

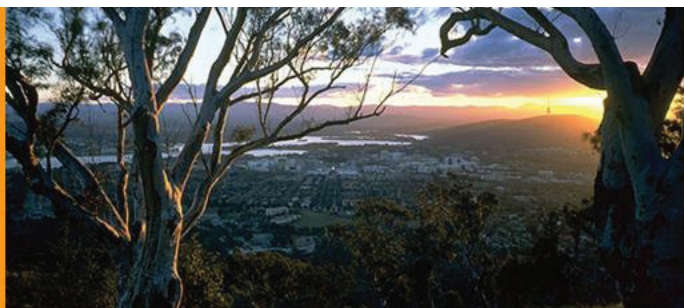
A selection of 14 invited papers have been chosen from approximately 40 International and national papers that

have been submitted, to supplement the rich research agenda from the EERH.

The invited papers will give the opportunity for other researchers to engage with the work of the Hub and share their complimentary work to broaden the overall discussion of Environmental Economics.

For the full program and to register for the Symposium please go to http://www.crawford.anu.edu.au/research_units/eerh/workshops/network_symposium/

Economics and
Environment Network
Symposium 2010



Director's Note continued from Page 1

through incompetence or for rent-seeking purposes, can be readily detected by those who are skilled in its use. Nor should this imply that CBA will deliver 'the answer'. The conceptual framework of welfare economics specifically indicates areas where there will be dispute. Equity is one. Future uncertainties will also mean there is room for debate. What this indicates is that sensitivity analysis – how the overall CBA result is impacted by the various assumptions employed in the analysis – should be an integral part of the CBA process.

All of this means that the 'caveat emptor' principle ('the buyer beware') applies here. If the decision maker commissioning a CBA is not well versed in its application, a process of peer review is strongly advised. The peer reviewer/s has the responsibility to advise on the technical soundness of the application as well as the appropriateness of the sensitivity testing undertaken.

The EEN Symposium – a landmark activity of the Hub – will take place in November. A wide variety of papers has been attracted for presentation at the Symposium from outside
cont'd Page 4

Hub Grows PhD numbers in Environmental Economics

Marit Kragt and Sonia Akter



Marit Kragt and Sonia Akter, PhD student successes from the Hub

Marit Kragt, UWA

The Environmental Economics Research Hub has been dedicated to supporting talented students to become high-quality academics through the funding of several PhD scholarships. Two of our students have recently submitted their theses.

Ms. Marit Kragt submitted her PhD thesis entitled 'An integrated assessment approach to linking biophysical modelling and economic valuation' in May 2010. In her research, Marit developed an integrated model of catchment management changes, impacts on environmental conditions and non-market values. The study involved researchers from various disciplines, including resource economists, hydrological modellers, soil scientists and ecologists.

Marit has since moved on to take up a position as an Assistant Professor with the School of Agricultural and Resource Economics at the University of Western Australia in Perth. In Perth, Marit will use the multidisciplinary experience from her PhD in research projects with the School and CSIRO Ecosystem Sciences, focusing on bio-economic modelling and environmental management.

She is further responsible for developing teaching materials and delivering lectures in Earth and Environment; Environmental Policy and Law; Management Decision Tools; and Water Resource Economics, and is now supervising two PhD students herself. Thank you, EERH.

Sonia Akter, ANU

On the 30th July of 2010, a beautiful sunny day with clear blue skies, I turned in the final, signed copy of my PhD thesis. After three and half years of hard work, I was finally done! My thesis was about the role of uncertainty on public preferences for climate change mitigation policy in Australia. Although I loved my research topic and thoroughly enjoyed working on it, I was ready to move on to explore something new and different. And right then, an opportunity emerged. Professor Tom Kompas offered me a position to work on a research project that aims to measure the value of an Australian bioregion. I am currently working on this project as a Research Fellow. While I am enjoying my post-PhD life and my short-term appointment in the school, I have been exploring longer-term job prospects. My interest is to work for international development organizations and continue policy relevant research in developing countries. My broader career objectives are to contribute to the global knowledge base and make this world a better place for all.



Presentations from the AARES Symposium "Reforming Urban Water" held in Sydney on 30 September 2010 - 1 October 2010 can be found at:
http://www.aares.info/aares_symposium_2010
see topic Scarcity Pricing of Urban Water Resources by Professor Quentin Grafton, EERH

New Centre for Climate Economics & Policy to be Launched at ANU Crawford School



Prof Lord Nicholas Stern at the Crawford School

A new Centre for Climate Economics and Policy at the Crawford School continues the Hub's work on climate change economics. It brings together leading researchers to support cutting edge research, bring insights to the policy making process, and to engage in the public debate. The new Centre will provide insights on the economics of climate change and implications for public policy, for curbing greenhouse gas emissions as well as adapting to climate change impacts. The focus is on Australia and the countries of the Asia-Pacific region.

The Centre draws together researchers on climate policy and economics from ANU and across Australia, Asia, Europe and America. Dr Frank Jotzo of the Crawford School, theme leader for climate change under the Hub, leads the Centre. In an initial event, Prof Lord Nicholas Stern – author of the groundbreaking UK climate change review – visited ANU for a roundtable discussion. A conference on Australia's climate policy options is in the planning for early 2011.

Research papers and policy briefs will cover issues like the design of Australia's policies for carbon emissions and future effects of climate change, emissions targets and policies of key countries in the Asia-Pacific, strategies to foster international cooperation, and assessment of long-term economic structural change from climate change and policy action.

The Centre for Climate Economics and Policy will be launched at the Crawford School's Asia Climate Change Forum on October 27.

Website: <http://ccep.anu.edu.au>



History matters:
Special journal issue
on environmental change

Pierre van der Eng, ANU College
of Business & Economics

The Environmental Economics Research Hub supported the preparations of the special issue of the *Australian Economic History Review* around the theme of 'Responses of economic systems to environmental change: Past experiences'. The publication contains 5 articles by leading economic historians and is edited by Pierre van der Eng (ANU) and Jean-Pascal Bassino (ex-ANU, now at the University of Aix-Marseille II). The papers were selected from those discussed at a special session at the World Economic History Congress in August 2009 and a pre-conference workshop that were supported by the Hub. They cover a variety of issues that unfolded in the past in France, Spain, India, Japan, Korea and Indonesia.

The articles focus on the question how economic systems generate processes of adaptation in response to environmental change. This is a vexed issue. For example, the 2007 Stern report (pp.83-4) acknowledged that the effects of climate change depend on the degree of adaptation that economies may generate, but noted that the transaction costs of such processes require clarification. Apart from the difficulty of quantification, processes of abatement in response to environmental changes are likely to be highly context-specific, and therefore difficult to take into account in modelling exercises for predicting future changes. Nevertheless, it is relevant to develop a deeper understanding of adaptive processes by studying past experiences of the adaptive responses of economic systems to exogenous environmental changes.

Environmental history is an established academic discipline, but it often lacks a rigorous assessment of how economic systems responded to exogenous change. This is partly due to difficulties with data availability and the fact that historians are generally prepared to work with idiosyncratic, incomplete, and context-dependent data that would deter specialists in the field of current environmental change. Consequently, there remain ample opportunities to study for example how factor markets drove economic adjustment processes, how public policy aimed and/or succeeded in facilitating change, whether adaptation processes were dependent on technological and/or institutional innovations, and under what conditions market failure or public policy failure obstructed effective responses to environmental change.

This special issue of the *Australian Economic History Review* cannot answer all those questions. It aims to contribute

Environmental Economics Research Hub

History Matters : cont'd from pg 3

to understanding the ways in which economic systems responded to and accommodated environmental changes or shocks, as well as the nature, extent, and speed of the adaptive processes that they generated. The articles in the publication underline the importance of historical context, as well as markets, institutions, technology and the role of international trade in understanding how economic systems responded to environmental changes. Together they demonstrate that historical studies can offer insights that may inform the current debate about environmental change, even though the historical cases of environmental change and exogenous shocks were of a different nature and magnitude.

Stern, N. (2007) *The Economics of Climate Change: The Stern Review* (Oxford: Oxford UP).

The special issue can be found here:

<http://onlinelibrary.wiley.com/doi/10.1111/aehr.2010.50>.

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Theme A.

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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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Director's Note cont'd from top of Page 2

the Hub. These will be combined with Hub reports to make up three days of state-of-the art environmental economics. Already over 80 registrations have been received. Every indication is that the Symposium will be an event to be remembered in the history of environmental and resource economics in Australia. You are warmly invited to be a part of it!

Jeff Bennett



Jeff Bennett,
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of Economics and
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Valuing Australia's botanic collections an Update by Paul Mwebaze, ANU



Tertius, Paul, Lucie and Marie-Caroline in Sydney for the Botanic Collection

The objective for this project was to consider the economic value associated with Australia's botanic collections. One component is the Travel-Cost (TC) exercise to value the visitation values associated with Australia's botanic collections. This will address the question of what value might be lost if for example botanic gardens were closed to public access? We are using the TC method to measure the values visitors place on botanic gardens, and the collections therein. The first part of the questionnaire has been designed so as to collect information on motivation, travel costs, travel time and on site expenditures. This information will be used to shed light on the benefits derived from individuals visiting botanic gardens. The second part of the questionnaire is asking visitors to botanic sites for their willingness to pay (WTP) for entry fees and or higher parking charges for access to botanic gardens. This will elicit both use and non-use values of botanic collections. Data collection commenced at the end of July 2010 and survey has been well received so far. With the help of research assistants from EERH (Tertius Greyling, Lucie Chaplain and Marie-Caroline Vandromme), we have now collected a total of 700 questionnaires at the Australia National Botanic Garden in Canberra and over 650 questionnaires at the Royal Botanic Garden Sydney. We are now rolling the survey over to the Royal Botanic Garden in Melbourne where we expect to collect at least 600 questionnaires.

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