

Institutional Highlights

Presidential Correspondence ▼



By Karine Nyborg, EAERE President

Dear Members,

Another summer has passed, and with it several successful EAERE events. First, it was wonderful to see so many of you during our **Annual Conference** in Prague! Second, this year EAERE has co-organized two **summer schools**: Ariel Dinar was responsible for the 2012 EAERE-FEEM-VIU European Summer School on Management of International Water, while Giovanni Signorello and Fabio Eболи co-ordinated the Belpasso International Summer School on Sustainable Development: Theory and Measurement Methods. Evaluation surveys confirm that all three events were greatly appreciated by the participants. My sincere thanks to everyone who helped making all this

happen!

EAERE is, in fact, doing well even financially. Due to high membership and conference participation numbers lately, we have been accumulating funds exceeding those needed for our everyday operation. The EAERE General Assembly in Prague decided to increase availability of travel grants for conference participants, particularly for paper presenters from developing countries – but even so, we have funds available for extra activities during 2013.

The Council has thus launched a [call for proposals](#) (deadline Feb. 15, 2013). I encourage you to submit your ideas of workshops, training courses or other activities that can help improve scientific exchange and dissemination in environmental and resource economics. We welcome proposals targeted to researchers, PhD students or policy makers, as well as ideas aiming at improving communication between these groups.

The next EAERE **elections** will take place in the fall of 2013. According to our statutes, the Nomination Committee will propose candidates for President-Elect and two new Council members – two candidates for each position. In the past few months, however, several members have contacted me arguing that one 'official' candidate for President-Elect is enough. They worry that EAERE is 'wasting' one excellent potential President in every election: while each candidate is among the Nomination Committee's top favorites, only one of them can be elected; those who are not, may be unwilling to run again later, and might even be discouraged from future EAERE involvement. Some members have even said that they find exposing distinguished and devoted EAERE supporters to this situation disrespectful.

Although our candidates are senior enough to tackle these matters professionally, I share the worry. For legal reasons, however, the rule cannot be changed. Nevertheless, the EAERE Council wants to emphasize that a nomination for President-Elect is a strong acknowledgement of the candidates' personal characteristics, scientific contribution, experience and devotion to EAERE and EAERE matters – regardless of the election outcome. To underline this, and to make sure that EAERE continues to benefit from the expertise of these highly valued members, we are introducing a new practice regarding appointment of our Nomination Committee – a committee which is crucially important to EAERE through its impact on our future leadership. For future elections, the Council will ask the candidate for President-Elect who was not elected to chair the next Nomination Committee. This person will be among our most distinguished and experienced members, he or she will have extensive networks and knowledge of the Association, but will not him- or herself be part of the current Council. In accordance with this new practice, I am extremely pleased that Cees Withagen, who was one of our 2011 candidates for President-Elect, has generously accepted to chair the 2013 Nomination Committee – with Partha Dasgupta and Katrin Millock joining him as Committee members. I can think of no-one better suited for this position than Cees (and let me add that I sincerely hope some future Nomination Committee will succeed in convincing him to run again)!

In 2011, Ger Klaassen was appointed a **Policy Advisor** for the EAERE Council. Ger has participated in most Council meetings, and has been of invaluable help in improving the contact between EAERE and the policy sector. While Ger's two-year term terminates at the end of 2012, he has kindly accepted to continue his task for one more year – which is greatly appreciated by the Council.

Finally, a few words on upcoming events. The next **EAERE-FEEM-VIU European Summer School** is concerned with Uncertainty, Innovation and Climate Change. It will take place in Venice, June 30th - July 6th, 2013, and is co-ordinated by Erin Baker and Valentina Bosetti. The deadline is February 1st – make sure to remind your PhD students!

February 1st is also the deadline for submitting papers to **EAERE's 20th Annual Conference**, this time in Toulouse, June 26-29, 2013. Note in particular that the organizers of the Toulouse conference have launched a **Call for Thematic sessions**, with deadline December 1st. Thematic sessions differ from our earlier Special sessions in that Session organizers are free to invite presenters at their own choice, and that the Thematic sessions will be semi-plenary, i.e. only a few sessions in parallel.

Finally, I was very excited to learn that the **5th World Congress of Environmental and Resource Economists** will take place in Istanbul, June 28 - July 2, 2014, organized by the Istanbul Technical University with Ozgur Kayalica chairing the Local Organizing Committee. The Programme Committee co-Chairs are Mark Cohen (Vanderbilt University), Timo Goeschl (University of Heidelberg), and Erinc Yeldan (Bilkent University). The selection of venue was made by a joint EAERE-AERE committee, chaired by Carlo Carraro – sincere thanks to the committee for their thorough work on this!

I hope to see you all in Toulouse next summer – in the meantime, keep up the good work!
All the best,

Karine Nyborg
University of Oslo, Norway

From the Editor ▼



By Phoebe Koundouri, EAERE Newsletter Editor

Dear friends,

Here's our Autumn Newsletter! I truly enjoyed editing this issue and I hope that you will find it interesting and stimulating to read.

The NL's feature section is a series of reports on our annual conference in Prague. My approach with this section was to ask a number of distinguished members of our Association, both established researchers and dynamic newcomers, to send short descriptions and thoughts on keynote speeches they attended, or

sessions they chaired or attended. The response was enthusiastic and I hope you will gain a summary insight to our conference by reading it. Moreover, thanks to the Conference Local Organizing Committee, you can watch videos of the plenary and policy sessions, accessible from the NL as web links.

The first report comes from Milan Šcasný, Chair of EAERE-2012 Local Organising Committee. Milan gives an overview of the conference and communicates some very insightful thoughts on its organization and content. Given the success of the Prague conference, this report will prove useful to the next conference's organizing team. An update on EAERE/2013, to be held in Toulouse, is given by David Alary, Nicolas Treich and François Salanié in the Institutional Highlights section of the NL.

The Newsletter feature section also includes three interviews carried out in Prague: Karine Nyborg, EAERE President, Jean Philippe Barde, the 2012 EAERE Practitioner Achievement Awardee, Ian Bateman, the managing editor of our official journal- who also contributed to the Institutional Highlights section of the NL with his report on Environmental and Resource Economics (ERE) - and Kerry Smith. The names of the interviewees are more than enough to stimulate your interest for this section! Finally, Frank Convery reports back on EAERE's Presidents' dinner that took place in Prague with a very insightful piece.

The Research Highlights section is very exciting! The leading article on 'Valuing Natural Capital' by Partha Dasgupta points to the social usefulness and importance of research on economics of ecosystem services, which, unfortunately, faces institutional resistance. Partha Dasgupta concludes: 'To me that's the biggest problem EAERE faces today: How to foster a field of research that is unappreciated in mainstream economics but is, ironically, both intellectually exciting and socially useful.' This section also includes articles from Jean Philippe Barde, Itziar Lazkano and Emmanuelle Lavaine, all three of them 2012 scientific award winners: the 2012 EAERE Practitioner Achievement Award, the 2012 FEEM Award, and the 2012 EAERE Annual Conference Best Poster Award, respectively. The section ends with an article by Ed Barbier on the new edition of the Blueprint for a Green Economy.

Then, three very informative 'Letters from the regions' follow: Leonor Coutinho and Theodoros Zachariadis from Cyprus, Anke Leroux from Australia, and Karl Steininger from Austria. I deeply thank our Country Representatives for their lively interaction regarding contributions to this section. Please keep sending ideas on possible contributions and comments. Interaction is informal, aiming at initiating discussions that eventually develop in interesting NL contributions.

The Policy Commentaries section opens with an update on Thomas Sterner's new appointment as chief economist of the Environmental Defense Fund, followed by a report on his visit to the European Parliament to reform EU fisheries policies. Then Mike Holland, Katarina Gårdfeldt and Stavros Georgiou inform us on the Socio-Economic Assessment Committee under the EU's REACH Regulation, while Snorre Kverndokk and Knut Einar Rosendahl provide us with a commentary on oil price effects of transport regulations. The section closes with Frank Jotzo's contribution on Australia's carbon price, which of course is closely related to Anke Leroux's report from the 'Letters from the regions' section, but with a different spin. I find the combination of these two pieces very informative.

Of course, all other NL traditional sections, Karin's Nyborg presidential correspondence, Ian Bateman's ERE report, EAERE Highlights with Job Market and other Announcements, are also included in this issue.

In closing this note, I want to communicate my deep appreciation for your contributions, the heart and soul of this NL, and remind you that I am looking forward to your suggestions, comments and new contributions for the next issue.

Phoebe Koundouri
Athens University of Economics and Business, Greece



Environmental and Resource Economics (ERE): The official journal of EAERE - Editorial Report ▼



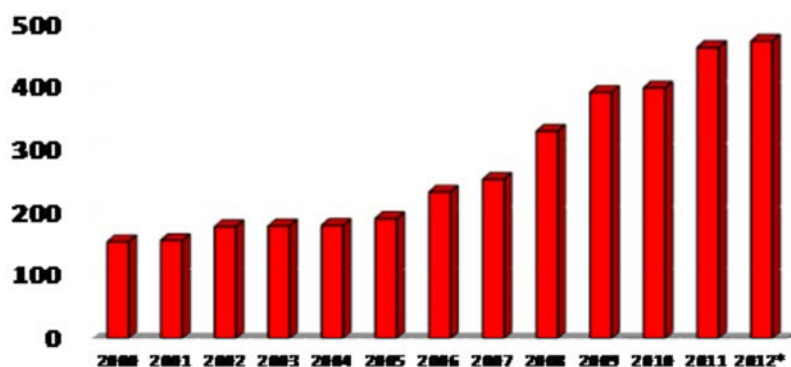
Ian Bateman, ERE Editor-in-Chief

Submissions to ERE

2012 looks like being another good year for ERE with submissions again exceeding previous records (see Figure 1). The submissions base continues to rise with more countries than ever sending in papers to the journal (see Table 1).

Journal impact factor

There are now a number of measures assessing the impact of published papers and the journals in which they appear. These differing measures all have their own strengths and weaknesses. The ISI impact factor (IF) is a relatively conservative measure, however it is also one of the most well established. This defines the impact factor for 2012 as follows: $IF_{2012} = \frac{\text{Number of citations to ERE papers published 2010-11}}{\text{Number of ERE papers published 2010-11}}$ Figure 2 illustrates the development of the IF for ERE over the past decade. This shows a strong upward trend in ISI IF over this period with ERE attaining its highest ever ISI IF of 1.523 in 2012.



* Estimate based on year to date

Table 1: Countries submitting papers to ERE

Year	No. of countries submitting to ERE
2003	28
2006	34
2007	41
2008	42
2009	49
2010	54
2011	57

Figure 2: ISI Impact Factor for ERE

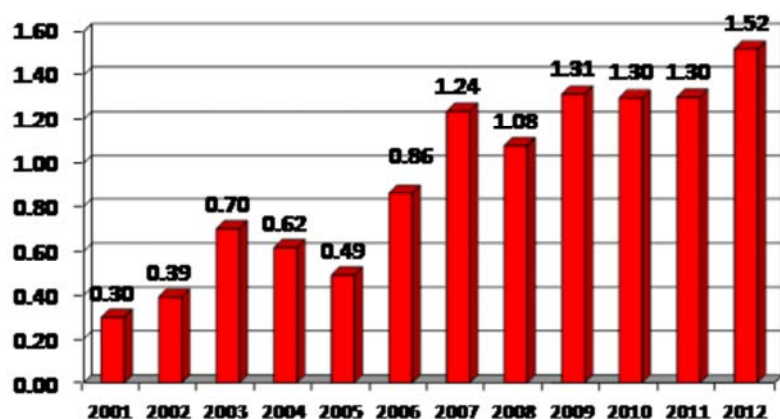


Table 2 compares the journal's most recent IF with those of its closest competitors. This shows that the journal now outranks most of its competitors; a result which is in sharp contrast with its position a decade ago when it stood at the foot of this table. Readers should be aware that the annual variance of these scores is significant and that this regularly moves journals a little way either up or down this list. Nevertheless the steady growth in impact of the journal is in strong contrast to that of the other journals in the list which have exhibited relatively static impact over this period. The table also indicates short term trends compared to the preceding year which shows that the strong overall movement is towards a reduction in impact; a trend which ERE has reversed.

Table 2: ISI Impact Factor in 2012 for ERE and close competitors.

Journal Title	ISI Impact Factor 2012 (and direction of change from 2011)
Ecological Economics	2.71 ↓
JEEM	2.17 ↓
Environmental & Resource Economics	1.52 ↑
Journal of Public Economics	1.46 ↑
Land Economics	1.30 ↓
Resource and Energy Economics	1.24 ↓
American Journal of Agricultural Economics	1.17 ↓
Australian Journal of Agricultural & Resource Economics	1.06 ↓

Journal of Forest Economics	0.81 ↓
Journal of Agricultural and Resource Economics	0.71 ↓
Environment and Development Economics	0.67 ↓

In summary the performance of ERE in terms of its impact looks strong. However, readers should recognise that IF values do vary substantially year by year (note for example the fall in IF between 2003 and 2005) and performance needs to be assessed over a considerable period in order to discern reliable trends. Nevertheless, across such a long term assessment, the journal has increased its impact far faster, and to a greater extent, than any of its competitors.

Special Issues

The large majority of ERE papers are published in regular journal issues. However, the journal also publishes Special Issues focussing upon topics of particular importance and interest. These are commissioned and undertaken in a manner which aims to ensure that the quality of Special Issue papers is at least as high as those of regular issues. On average ERE publishes about two Special Issues per annum. As you can imagine these take considerable planning and the work of Guest Editors is particularly important and greatly appreciated. Typically ERE publishes about two special issues per annum. To ensure that this flow is maintained they are planned some considerable time in advance. Present plans for the period up to 2014 include the following special issues:

- "Economic Analysis for the UK National Ecosystem Assessment": Guest Editor: Sir Partha Dasgupta
- "Environment and Development": Guest Editors: Johanna Choumert, Alexandru Minea, Thomas Sterner & Combes Motel
- "Towards Global Agreements on Environmental Protection and Sustainability": Guest Editor: Michael Finus
- "The Economics of Marine Ecosystems": Guest Editors: Paulo Nunes & Andrea Ghermandi
- "Developments and Challenges in Fisheries Economics (Essays In Honour of Colin Clark)": Guest Editor: Rashid Sumaila
- "People and the Planet": Joint with the Royal Society (featuring Nobel Laureate John Sulston, Sir Partha Dasgupta, etc.)

Changes to the Editorial Board

This Newsletter brings a very welcome opportunity to recognise the superb support and hard work given by the following members of the Editorial Board who have retired over the past year or will retire shortly: Reyer Gerlagh; Joe Herriges; Michael Rauscher; Daan van Soest. In addition Associate Editor Matt Cole is taking temporary leave to try and help our friends at JEEM (!). We are particularly keen to recognise the long term contribution of Kerry Turner who has also retired. Kerry has played an invaluable leadership role as Joint Chief Editor of the journal and we are pleased to note that his expert guidance will not be lost to the journal as he has accepted a position on the ERE Scientific Advisory Board.

One of the many supportive attributes of all those who have retired is that they have all given plenty of notice allowing the recruitment of a superb and dynamic set of new Associate Editors. We are very pleased to announce that the following have all joined the Board over the 2011-12 period:

- Thomas Sterner (EAERE Past-President; dealing with policy instrument design, etc.); Michael Finus (international environmental agreements, etc.);
- Timo Goeschl (environmental policy, biodiversity);
- Klaus Moeltner (non-market valuation; econometrics);
- Rob Elliott (trade, energy, development)
- Phoebe Koundouri (water, agriculture, natural resources)

...and finally

We strongly encourage academics from across the field to submit their work to the journal; and I speak for the entire Editorial Board when I express our unreserved thanks to the large team of Referee's who support the journal with superb reviews of submitted papers. Without your continued support the journal could not survive – thank you!

Ian Bateman

Centre for Social and Economic Research on the Global Environment (CSERGE), UK
School of Environmental Sciences, University of East Anglia, Norwich, UK.



EAERE 20th Annual Conference: updates▼



By David Alary, François Salanié, Nicolas Treich, EAERE/2013 Local Organising Committee

The 20th Annual Conference of the European Association of Environmental and Resource Economists (EAERE) will be held in Toulouse, France, on June 26-29, 2013. See: www.eaere2013.org/

The conference will take place at the University Toulouse 1 Capitole, located downtown Toulouse. It is organized by the Toulouse School of Economics, which is one of the top economics departments in Europe. In particular, Toulouse School of Economics is well-known for its research in environmental economics which is developed within the Laboratoire d'Economie des Ressources Naturelles (LERNA).

Toulouse and the Midi-Pyrénées region are steeped in both history and today's world. In this region, tradition and modernity meet, from the Cathars and the way of St. James to technical innovations and the space and aeronautic epic of the 21st century. "La Ville Rose", as Toulouse is known for its distinctive pink brick architecture, is France's 4th largest city, combines a rich historical and cultural heritage (the City Hall, Church of the Jacobins with its cloister, Saint-Sernin Basilica, the Bemberg Foundation, the "Musée des Augustins", the "Canal du Midi", the "Cité de l'Espace", the Chateau of the Counts of Carcassonne...) and the delights of its world-famous "Gourmet cuisine" (cassoulet, foie gras)...

The conference should include about 500 papers presented in parallel sessions, or through posters. There will be also semi-plenary thematic sessions, aiming at discussing some current important scientific and policy issues (see the call for proposals on the conference website). Plenary keynote lectures will be given by Rachel Croson (University of Texas at Dallas), Marc Fleurbaey (Princeton University) and Agnar Sandmo (NHH Norwegian School of Economics). The deadline to submit papers to the EAERE conference in Toulouse is February 1st, 2013. The notification of acceptance of papers will be given from April 15, the deadline by which presenting authors must be registered in order for their paper to be included in the programme is May 10th, 2013.

The Local Organizing Committee is lead by David Alary and François Salanié (both TSE-LERNA). The Program Committee chairs are Fredrik Carlsson (University of Goteborg) and Nicolas Treich (TSE-LERNA).

It is with great pleasure that we invite you to come to Toulouse, for this key event in our community of researchers working on environmental and resource economics. We are confident that you will have a truly memorable and rewarding stay in the "Ville

Rose".

David Alary, François Salanié and Nicolas Treich
Toulouse School of Economics, France

EAERE/2013 Important Deadlines

February 01, 2013: Deadline for submission of papers

April 15, 2013: Notification of acceptance of papers

May 01, 2013: Deadline for early registration

May 10, 2013: Deadline by which presenting authors must be registered in order for their paper to be included in the programme



Celebrating EAERE 20th Annual Conference

Did you realize that the next EAERE Conference will be the 20th? With the aim of celebrating this Anniversary, we invite members to send their best memories regarding previous conferences or the life of the Association.

Contributions can consist in a description of a moment to be remembered or pictures to be displayed.

The material collected will be made available at the next Annual Conference, to be held in Toulouse.

To send your memories, fill in the form available [here](#) by February 20th, 2013. Contributions will be much appreciated.

5th World Congress of Environmental and Resource Economists



World Congress of Environmental
and Resource Economists

The Association of Environmental and Resource Economists (AERE) and the European Association of Environmental and Resource Economists (EAERE), in cooperation with the East Asian Association of Environmental and Resource Economics (EAAERE), announce that the 5th World Congress of Environmental and Resource Economists will be held in Istanbul, Turkey, from June 28th to July 2nd, 2014.

The Congress will be organised by the Istanbul Technical University, with Ozgur Kayalica chairing the Local Organising Committee. The Programme Committee co-Chairs are Mark Cohen (Vanderbilt University), Timo Goeschl (University of Heidelberg), and Erinc Yeldan (Bilkent University).

Call for Proposals - Scientific Exchange and Dissemination in Environmental and Resource Economics

EAERE solicits proposals for supporting the organisation of activities that promote the scientific exchange and dissemination in environmental and resource economics. Workshops, conferences, schools, training courses, and any kind of activities targeting this goal and to be carried out in year 2013 can be proposed. Proposals aimed at researchers and/or students and/or policy makers, as well as proposals aimed at improving the communication between these groups, will be considered.

Application is restricted to 2013 EAERE members in good standing at the deadline of this call. EAERE members that intend to submit proposals are kindly requested to send their applications by **February 15th, 2013** according to the rules announced in this call.

The indicative total budget for all the activities funded (or co-funded) under this call is approximately € 50,000. The call is primarily aimed at activities with a requested budget between € 5,000 and € 20,000, but all proposals with a maximum request of € 50,000 will be carefully evaluated.

Regulations

Application is restricted to 2013 EAERE members in good standing at the deadline of this call. Incomplete or late applications will not be considered. The proposed activity must be conducted in English. Only proposals to be implemented in year 2013 will be evaluated.

Evaluation procedure

The evaluation of proposals will be carried out by the EAERE Council.

Proposals will be evaluated according to the following criteria:

- (a) scientific quality;
- (b) capacity to promote an effective scientific exchange and dissemination in environmental and resource economics;
- (c) capacity to offer advantage to a wider number of EAERE members from different countries, or capacity to attract new members from different fields or regions;
- (d) capacity in organising the proposed activity, both from a scientific and administrative viewpoint;
- (e) well-defined time plan and adequate proposed budget.

Notifications will be circulated by 10 March 2013.

How to apply

Applications consist of:

- (1) a description of the proposed activity, including its timeliness and relevance (max 3,000 characters including spaces);
- (2) a description of target audience and expected number of participants (max 1,500 characters including spaces);
- (3) a presentation of the applicant including the applicant's relevant experience for the organization of the proposed activity, both from a scientific and administrative viewpoint (max 3,000 characters including spaces);
- (4) an activity time plan;
- (5) an activity budget.

Applicants are also requested to assess the extent to which the proposed activities could potentially be replicated in the future on a regular basis, should funding for this become available either through EAERE or other sources.

Any other information the applicant judges as relevant can be added to the application.

Applications should be sent by e-mail to the EAERE Secretariat at the address below by 15 February 2013. Any material that cannot be sent electronically should reach the EAERE Secretariat by mail or fax by 15 February 2013.

Expressions of interest should be sent to:

European Association of Environmental and Resource Economists - EAERE

EAERE Country Representatives ▼

The action of Country Representatives is meant to strengthen the Association's presence in individual countries and therefore to help the EAERE to further its aims.

The board of Country Representatives recently underwent a few changes:

New Country Representatives:

- **Brasil:** Sandra Silva Paulsen
- **Canada:** Robert Cairns
- **France:** Vincent Martinet
- **Italy:** Marzio Galeotti
- **Japan:** Shunsuke Managi
- **South Africa:** Edwin Muchapondwa

The Association expresses its gratitude to those who accepted to take over this role and to help the Association. We welcome new Country Representatives and confirm our thankfulness to outgoing ones:

- **France:** Katrin Millock
- **Italy:** Giovanni Signorello

Further information available at <http://www.eaere.org/country.html>

General Assembly of Members - minutes to be approved

The Minutes of the last EAERE General Assembly of Members held on June 30rd, 2012 in Prague are available at www.eaere.org/files/agm2012.pdf.

Feature

Reflections on EAERE 2012 ▼



June 27-30, 2012 / Prague, Czech Republic

19th Annual Conference of the European Association
of Environmental and Resource Economists



By EAERE/2012 Local Organizing Committee

The 19th Annual Conference EAERE 2012 was held from 27th to 30th June, 2012 in Prague, the capital of the Czech Republic, and was visited by around 700 participants from 50 countries. As for most of the EAERE conference organisers in previous years, it was the first time for us and

we would once more like to express our gratitude to the EAERE council for selecting our candidature and thus giving us this opportunity.

In Prague, we had 458 presentations in 121 parallel sessions including 13 special sessions. In total 1,178 papers were submitted that were all evaluated in a blind review process by two reviewers. For this we needed 279 reviewers who did a tremendous job of ensuring the quality of the presentations and who contributed a great deal to the success of the conference.



Outstanding scholars and distinguished researchers accepted our invitation to give keynote lectures - Ian J. Bateman from University of East Anglia on the Economic Analysis for Ecosystem Service Assessment, William D. Nordhaus from Yale University on Integrated Assessment Modelling in Economics and Climate Change and V. Kerry Smith from Arizona State University on Valuing Nature in a General Equilibrium. All the keynote lectures were recorded and are available for you at the conference website www.eaere2012.org/photo-and-video/streams.

We had two events preceding the main conference, a course on Economics of Environmental Regime Shifts organised by the Beijer Institute of Ecological Economics and a discussion panel "Can we afford green policies during an economic downturn?" with Reyer Gerlagh's keynote speech organised in cooperation with the Heinrich-Böll-Stiftung.

Besides the standard scientific programme consisting of keynote plenary lectures and parallel sessions, we tried to offer also more policy related discussions and thus invited various institutions to get involved and cooperate with the scientific committee in organising the policy sessions. At the end, five sessions were included in the programme and their recordings are available at the conference website too. This would not be possible without the organisers of these sessions: the World Bank, PBL Netherlands Environmental Assessment Agency and Resources for the Future, the European Commission - DG Climate Action and the European Chemicals Agency.

Furthermore, we organised a plenary panel session on the follow up of the UN Conference on Sustainable Development Rio+20 that was held only a week before our conference. Distinguished speakers took part in the panel: Sir Partha Dasgupta from University of Cambridge as chair, Marianne Fay from the World Bank, Reyer Gerlagh from Tilburg University, Georgina Mace from Imperial College London and Bedrich Moldan from Charles University in Prague. This panel was also recorded and can be watched on the conference website.

We tried to build on the experience of previous conferences, but also add something new that could be followed in the coming years. However, the experience of organising the conference just once made us realise that just keeping up with previous conferences is enough effort in itself! We though hopefully made at least some experience that can be useful and improved on in the future. For the first time this year, we organised the so called "Guided poster tours". We had six thematically focused tours consisting of 24 accepted posters, each of the tours being guided by a key



scientist in the field. We herewith thank once more all the guides for their time and efforts and hope that the guided poster tours will become part of future EAERE conferences.

Because of the growing interest in EAERE conferences, a cap of 500 had been put on the number of presented papers by the EAERE council and in order to allow for as many different presenters as possible while respecting this cap, a new rule was established to limit each person to presenting only one of his or her accepted papers.



For the first time, also a new "discounted" registration category was introduced that included fewer social events in the fee and thus allowed us to offer more accessible registration fees. This option was chosen by 17 % of the participants and it will be offered in the upcoming conference. In the evenings, as traditional at EAERE conferences, a social programme was offered to participants. We had welcome reception combined with registration at the conference premises, a buffet reception at the Gallery Rudolfinum on the second day that was accompanied by the astonishing Dr Keynes and the Lounge Lizards band and a seated dinner at the Convent of St. Agnes of Bohemia on the third conference day, where we enjoyed classical music performed by the Eve Quartet.

We would like to use this opportunity to thank the Beijer Institute of Ecological Economics, EEA, EAERE and Springer for providing resources to support grantees from lower income countries and the CEEC region. Thanks to them, we were able to have 22 participants from these countries that otherwise would not have been able to attend. The grant applications however exceeded the number of grants available and we would like to appeal to future organisers to try and secure more grant resources in future years.

Inspired by the previous conferences, especially at Gothenburg, we also considered how to make the conference more sustainable at least in some respects. Much can be done in this area and much will probably always be limited by budget constraints. We tried to incorporate at least three aspects. We followed the tradition of offering CO2 compensation for attending the conference. The offset was realised by a local civic association that used the collected money for planting approximately 200 trees of local species. The interest in obtaining CO2 compensation was not very high among the conference participants; only 16% purchased the offset. The reason for this may be question for future evaluations. We also tried to strengthen the social aspect and chose as the main conference caterer another local civic social enterprise association run by and employing women migrants and thus trying to integrate different cultures through bringing their local cuisines to middle Europe. We hope that the majority of the conference participants enjoyed this decision. And last but not least, the conference bags were EarthPositive® certified, guaranteeing that they were organic and ethically made, and manufactured using energy solely generated from wind and solar power.



EAERE 2012 was a great challenge and experience for the whole organising team and all parties involved in the process. We hope that you enjoyed it as much as we did. Now, we keep our fingers crossed and wish good luck to organisers of next year's conference in Toulouse!

The Local Organizing Committee of the 19th EAERE conference & Charles University Prague, Environment Center

Photos and videos available at www.eaere2012.org/photo-and-video/photos.



Interviews with Karine Nyborg, Jean Philippe Barde, Ian Bateman, Kerry Smith

(From the interview with Karine Nyborg)

What role can the Association play in the coming years?

One of the current goals of the current council is to improve the connections with the policy arena, since both researchers and policy makers need to be in touch with each other. On one hand, researchers can gain new ideas and interesting hypotheses from policy makers in order to understand how things work in the political sphere; on the other hand policy makers need to know the most important research results. This is a connection that is hard to keep, since many researchers don't usually have time to disseminate the results of their work and most policy makers don't have time to actually read research papers.

Read the full interview to Karyne Nyborg and watch the video interviews to Ian J. Bateman, Kerry Smith and Jean-Philippe Barde on [Re3, FEEM's online magazine!](#)

EAERE Presidents' Dinner, Prague, June 28, 2012 ▼



By Frank Convery, EAERE Honorary President and Former EAERE President (2004-2005)

Feelings about clubs are at best ambivalent. Groucho Marx's observation comes to mind: "I don't care to belong to a club that accepts people like me as members." Membership of the EAERE Presidents' club is like being a member



of the Euro zone; once you are in, it's very difficult to get out.

Presidents are elected to serve two year terms, commencing with Henk Folmer, our inaugural President (1992-93), followed successively by Rudiger Pethig (1994-95), Domenico Siniscalco (1996-97), Aart de Zeeuw (1998-99), Alistair Ulph (2000-01), Klaus Conrad (2002-03), Frank Convery (2004-05), Anastasios Xepapadeas (2006-07), Thomas Sterner (2008-09), Partha Dasgupta (2010-11), Karine Nyborg (2012-13), with President-elect Anil Markandya to serve from 2014-15.

At our annual conference in Prague, past, present and in waiting Presidents of EAERE met for dinner, where we were joined by our conference host, Milan Scasny and our Secretary General, Monica Eberle. All attended except Henk Folmer, Alistair Ulph and Domenico Siniscalco, who were initially to come, but a combination of urgent obligations relating to travel, business and family in the end precluded them from joining us.

A few thoughts:

- We were all grateful to be alive and amongst friends.
- The numerical dominance of the XY chromosome combination was striking. For many reasons, it is great to have Karine as our President, and it also begins to correct the gender imbalance.
- Our dinner took place on June 28th, immediately preceding the Italy vs. Germany semi final of the European 2012 Football championship. The expectation that Germany would beat Italy was widespread, a view not shared by Rudi and Klaus, whose national pessimism proved to be prescient.
- Various near disasters were recounted; with temperature over 40 C, the power outage early on at the conference in Thessaloniki caused palpitations; confusion about sartorial rules in Oslo caused confusion.
- Henk suggested in a note that we should discuss the idea of examining EAERE and assessing its achievements, failures and future direction. This idea was supported, and Karine will ask Council to agree a process, with a view to perhaps having some activity or session at the next annual conference (Toulouse, 26-29 June, 2013)

Those of us who can will re-convene in Toulouse.

Frank Convery
Environmental Institute, University College Dublin, Ireland



EAERE 2012 Plenary and Policy Sessions' videos

The videos of EAERE/2012 Plenary and Policy Sessions are available in the Conference website at <http://www.eaere2012.org/photos-and-videos/streams/>.

We thank the Local Organising Committee for providing this useful service.

Report: Key Note Lecture - Integrated Assessment Modeling in Economics and Climate Change ▼



By Timo Goeschl, EAERE Council Member

Integrated Assessment Models (IAMs) have become a mainstream tool in the analysis of climate change and climate policies. To no small measure, this is thanks to William Nordhaus who presented this keynote on Integrated Assessment Modeling. Bill Nordhaus has not only been a tireless advocate of the merits of IAMs, but more importantly his own contributions have demonstrated that IAMs can be both feasible and meaningful. Many researchers, also outside economics, have come to rely on his DICE and RICE models as lodestars in the IA modeling of climate change.

As he made clear at the beginning, Bill Nordhaus' keynote lecture was meant to do two things. For one, it was meant as a review on why economists were engaged in IA modeling, what they had learned, and why it mattered for policy. As an inherently interdisciplinary exercise, building an IAM is both intellectually exhilarating and frustrating: "Climatologists have no interest in giving you a two-equation climate model," joked Nordhaus.

The other objective was to raise two recent issues in IA modeling. One is the question about the desirable degree of spatial disaggregation. Here, Nordhaus emphasized that greater disaggregation is not always desirable: Maintaining predictive power at higher degrees of spatial resolution often gives rise to disproportionate data requirements that economic data can rarely meet at the sub-national level. The other recent issue is that of computational complexity and its impact on the reliability of ever more complex IAMs. Given the ubiquitous presence of coding errors in professional software, Nordhaus expressed concern about their presence in IAMs and illustrated the dangers with two examples. The point certainly came across: You can read up on the debate that ensued at www.eaere.org/eaere2012_nordhaus.html.

Timo Goeschl
University Heidelberg, Germany

The video of the Session is Available [here](#)

Report: Key Note Lecture - Economic Analysis for Ecosystem Service Assessments ▼



By Catarina Roseta-Palma, EAERE Vice-President

In this session, Ian presented work developed during the UK National Ecosystem Assessment (UK-NEA), which provided an evaluation of the ecosystem services in the country combining natural science and economics. From 1950, there have been large physical increases in provisioning services but significant decreases in other types. The first step in the economic analysis was to identify appropriate valuation methods for market and non-market services, focusing on marginal values where possible. Then the UK-NEA team also defined six possible policy scenarios to 2060, of which the extremes were "World markets" (WM) and "Nature at work" (NW), the latter being the most protective of the environment.

As an example of the work, Ian showed the audience the results, predicted by the models of agricultural land use, for the impact of climate change to 2060. Using market prices for traditional farm output, the gains would be higher under the WM scenario.

However, if the impact on different ecosystem services (such as the recreation benefits of the associated increase in diffuse pollution) is considered, the WM scenario would actually bring losses and the NW scenario would be much better, highlighting the importance of including non-market values in policy decisions. Another important conclusion of the work was that the results are spatially differentiated, so that ideally one should target policy to specific areas to maximize market and non-market values. The environment is very complex and there is a lot of natural variation, which should be taken into account in policy design. Ian emphasized the need to get policy makers on board by showing them the potential gains of a wider valuation approach, while also suggesting increased engagement with the business sector. He introduced us the [Valuing Nature Network](#). There was a lively discussion from the audience on the models, the definition of areas for optimal policy targeting, distributive analysis of gains and losses and political issues at different scales.

Catarina Roseta-Palma
University Institute of Lisbon, Portugal

The video of the Session is Available [here](#)

Report: Key Note Lecture - Valuing Nature in a General Equilibrium ▼



By Simon Dietz, London School of Economics and Political Management

In the third and final plenary lecture of the conference, Kerry Smith took stock of the state of environmental economics and how it relates to mainstream economics, reflecting on some 42 years of experience in the profession that started with Resources for the Future.

He argued that environmental economics has been, and continues to be, seen by the mainstream as a specialty. Moreover he linked this detachment with a failure in economic modelling of the benefits of environmental regulations to consider general-equilibrium effects (note that this criticism was applied to the benefits side of the ledger rather than the costs of regulations, where the tradition of modelling in a general equilibrium is much more established, if not yet ubiquitous).

But these general-equilibrium effects can be important: for instance, enjoyment of outdoor recreation services depends on leisure time and related services such as transportation and accommodation, so clearly there is potential for the value placed on recreation to change as the relative prices of leisure and these related services do. Indeed, the practice of ignoring general-equilibrium effects is of course inconsistent in a straightforward way with standard practice in applied environmental valuation (e.g. travel-cost modelling), where it is taken as foundational that demand for environmental quality responds to relative price changes. Thus there is an opportunity, he argued, to reconnect environmental economics with the mainstream through stressing the links between environmental and macro economics in applied general equilibrium modelling.

To illustrate this important point, Smith took us through some recent CGE modelling of the effects of air pollution on ecosystem services and health in the United States. Smith was keen to play down the comprehensiveness and detail of the modelling, but in fact it is easy to see that a tremendous amount of effort had gone in to model specification and calibration. And the effort was not wasted in terms of the results: his modelling (with Jared Carbone) shows that the difference in the value of an environmental service (in this case fish services) estimated using partial- and general-equilibrium analysis can be large, with the general-equilibrium analysis yielding estimates up to around 50% higher, depending on various assumptions including the degree of substitutability in production and consumption relationships.

Thus while comprehensive CGE modelling of the both the benefits and costs of environmental regulations, incorporating the effects of changes in relative prices on both sides of the ledger, is a considerable undertaking, the case has been made strongly for doing so: as Smith said in concluding, "we need environmental macroeconomics".

Simon Dietz
London School of Economics and Political Science, UK

The video of the Session is Available [here](#)

Report: Panel Session on Rio+20 ▼



By Jean-Philippe Barde, EAERE European Practitioner Achievement Award winner, 2012

The role of environmental economists is crucial for the conception and deployment of sound environmental and sustainable development policies. Over the past twenty years, this discipline has exerted a growing influence at the national and international levels. For instance, several countries now make a significant use of economic instruments such as environmental taxes and tradable quotas. At the international level, the implementation of the UN Framework Convention on Climate Change is strongly influenced by economics (Clean Development Mechanism, Joint Implementation, EU ETS etc.).

The same holds true (albeit to a lesser extent, so far) for the UN Convention on Biodiversity (payment for ecosystems services, pricing of natural resources, valuation of biodiversity...). Yet, this influence remains limited, and above all, takes considerable time.

The recent debate on the Rio + 20 Conference, during the last EAERE Conference in Prague (27-30 June 2012), clearly indicated the great deception about the very poor achievements, and the lack of political will; even the concept of green growth (an application of basic economic principles and instruments) made no progress. Environmental and resource economists are confronted with the chaotic and slow international political process, the short sightedness of policy makers and the difficult pedagogical exercise to convince policy makers and the general public about a necessary comprehensive and long term economic perspective.

The battle is never finished and EAERE can and should play an essential role by developing synergies and building bridges between the academic research and the policy agenda. This is more than ever needed in the context of the present public, and financial crisis, and acute environmental challenges facing the world. The EAERE « Practitioner Achievement Award in Applying Environmental Economics » which I was honoured to receive this year, is one testimony of EAERE's vocation and capacity.

The video of the Session is Available [here](#)



Report: Policy Session - Economic Valuation of Ecosystem Services, Natural Wealth Accounting and Support to Macroeconomics Policy ▼



By Paulo A.L.D. Nunes, The Mediterranean Science Commission - CIESM

Wealth Accounting and the Valuation of Ecosystem Services (WAVES) is a global partnership initiated by the World Bank that aims to promote sustainable development by ensuring that the national accounts used to measure and plan for economic growth include the value of natural capital, including ecosystem services. This global partnership brings together a broad coalition of UN agencies (e.g. UNEP, UNDP, UN Statistical Commission), national governments, international institutes, nongovernment organizations and academics with the objective to (1) implement environmental accounting based on the SEEA (System of Environmental and Economic Accounting) and mainstream in policy, (2) contribute to the development of internationally agreed approaches for ecosystem service accounting, particularly the monetary aspects, and (3) promote widespread implementation of environmental accounting through the partnership.

By working with ministries of finance and planning across the world to integrate natural resources into development planning through environmental accounting, the partnership hopes to enable more informed decision making that can ensure inclusive green growth and long-term advances in wealth and human well-being.

Background WAVES was launched by the World Bank President, Robert B. Zoellick at the Convention on Biological Diversity meeting in October 2010 and has strong support from the World Bank's current President, Jim Young Kim. The program is being implemented in two phases: a preparation phase (January 2011 to June 2012) and the subsequent, four year implementation phase (2012-2016). These are some highlights from the 'preparation phase':

- A global partnership has been established, building on efforts by TEEB, UN Green Economy, OECD Green Growth, Poverty Environment Initiative (UNDP/UNEP) and many others partners in academia, NGOs, national governments, and the private sector.
- Work has started in 5 countries: Botswana, Colombia, Costa Rica, Madagascar and the Philippines.
- A Multi-Donor Trust Fund has been established in the World Bank to support this work, and commitments have been obtained for most of the proposed budget of \$15 million.

A key component of WAVES is the Policy and Technical Experts Committee (PTEC), established to guide development and testing of scientifically credible methodologies for ecosystem accounting; to identify opportunities to contribute to policy and mainstreaming, and to ensure cohesion, consistency and scalability among the country studies. The Committee consists of technical experts in economics, natural science, and environmental accounting.. Since policy makers are not always sure how environmental accounting can help them make decisions, the Committee also includes policy experts and communications specialists to make sure the messages go out to a wide range of audiences, not just the technical communities.

Glenn-Marie Lange (World Bank) and Pushpam Kumar (UNEP) are co-leaders of the WAVES PTEC.

Paulo A.L.D. Nunes (CIESM – Mediterranean Science Commission) and Urvashi Narain (World Bank) are the coordinators of PTEC.

For more general information on WAVES, please contact our website www.wavespartnership.org

Developing countries - Botswana, Colombia, Costa Rica, Madagascar, Philippines – are working to establish environmental accounts in practice. In addition, developed countries like Australia, Canada, Japan, Norway, France, and the United Kingdom that are already exploring environmental accounting and have valuable lessons to share are also part of the partnership. For more information on WAVES country work across the implementing partners:

[Botswana](#)

[Colombia](#) Costa Rica <http://www.wavespartnership.org/waves/costa-rica>

[Madagascar](#)

[Philippines](#)

Paulo A.L.D. Nunes The Mediterranean Science Commission - CIESM, Montecarlo

The video of the Session is Available [here](#)



Report: Special Session - Market-Mediated Effects of Biofuels ▼



By Madhu Khanna, University of Illinois, Urbana-Champaign

Biofuels have gained attention as a strategy for reducing greenhouse gas emissions from transportation fuels. However, concerns about their indirect impacts on global emissions because they affect food and fuel prices and affect land use and fuel consumption in the rest of the world have led to scepticism about the climate change mitigating benefits of biofuels. Estimates of the magnitude of these effects show a great deal of variability and policy decisions to include them in regulations in the US and recently to exclude them from EU renewable energy policies have been highly contested.

This session included presentations examining several different types of indirect effects and estimating the magnitude of these effects. The presentations showed that biofuels the market-mediated effects of biofuels can have positive and negative effects on greenhouse gas emissions. Biofuel production leads to price induced land use change and also to changes in fossil fuel use consumption domestically and in the rest of the world. These effects can differ in their direction since biofuels could raise domestic fuel prices for consumer while lowering world fuel prices. Moreover, biofuels can displace not only gasoline but also reduce production of petroleum by-products and induce a switch towards less carbon intensive alternatives. The estimates of these market mediated effects are sensitive to the biofuel and climate policies analysed and to modeling assumptions and parameters. The session stimulated discussion on effective policy choices to mitigate these market-mediated effects.

Madhu Khanna
University of Illinois, Urbana-Champaign, USA

Report: Parallel Session on Energy Sources ▼



By Richard Carson, University of California, San Diego

The first of several energy sessions at the EAERE meeting featured papers on modeling key questions related to contemporary policy issues. The first paper, "Stationarity Changes in Long-Run Fossil Resource Prices: Evidence from Persistent Break Testing" presented by Aleksandar Zaklan, examined recent developments in time series analysis with an eye toward modeling the price path of different types of fossil fuels. The paper's empirical application looked at U.S. price series for oil, natural gas and coal and found that the dynamics of oil prices are substantively different from that of the other two price series.

The second paper, "Modeling Peak Oil and the Geological Constraints on Oil Production" presented by Samuel Okullo incorporates geological constraints into a Hotelling model of exhaustible resource extraction. With plausible assumptions, this produces a Hubbert-style bell-shaped production curve and a numerical simulation using world oil producers suggests interesting policy implications.

The third paper, "Optimal Investments in Low-Carbon Energy Plants and the Extraction of Fossil Fuels" presented by Renaud Coulomb examines how renewable generation technologies and carbon capture and sequestration technologies should optimally be deployed along a path of increasing carbon dioxide concentrations that eventually hits an exogenously imposed cap. The paper explores the role played by characteristics of competing technologies including depreciation rates and how they interact with the extraction of fossil fuels and tax policies.

I presented the fourth paper, "The Economics of Bulk Electricity Storage with Intermittent Renewables", which takes up an emerging issue—what are the social benefits to requiring the installation of large scale capacity to store electricity on a grid generated in one time period for use in a later period. The paper shows that while the private gains to shifting sales from off-peak to peak are always positive, the social impact in terms of pollution of shifting the production mix may be negative, which is the empirical result found in an application to the Texas electricity grid where bulk storage is shown to increase carbon dioxide emissions.

Richard Carson
University of California, San Diego, USA



Report: Parallel Session on Choice Modeling ▼

By Nick Hanley, University of Stirling

Many excellent and interesting papers were presented at the 2012 EAERE meeting in Prague. I was fortunate enough to be asked to chair one of several sessions on choice modelling, which showed up the great range of policy issues to which the technique is now being applied, as well as some of the methodological problems that are interesting researchers. On the policy side, Anna-Kaisa Kosenius presented a study which quantified the benefits from protecting coastal ecosystems in the Baltic, looking at comparable results for three countries (Finland, Sweden and Lithuania).

Such coastal ecosystem values are proving to be of increasing interest to national environmental regulators and environment ministries in Europe due to revisions to the Bathing Waters Directive, and implementation of the new Marine Strategy Framework Directive. Mikolaj Czajkowski and colleagues have also used choice modelling to look at highly topical environmental management issues, this time to do with the design of urban recycling and waste collection schemes. Intriguingly, they find that Polish households have a positive willingness to pay for schemes which require a greater degree of home sorting, possibly reflecting a distrust of municipalities to do a good job, or a desire for an internal and external green self-image by respondents.

On the methodological front, two very interesting papers illustrated some important issues. Allan Provins and Bruno Lanz discussed the role of the status quo in experimental design and modelling: a common finding by many has been a significant parameter estimate for the Alternative Specific Constant, but how to interpret this in terms of the underlying utility function or welfare measurement is problematic.

Finally, Sergio Colombo and Klaus Glenk discuss how people process attributes. This encompasses a range of issues: which attributes are potentially relevant to choice, whether threshold values exist for some attributes, how people may ignore attributes simply as a way of simplifying the choice process and under what circumstances they do so, are all important considerations in applying this fast-growing method of environmental valuation. We started using this technique back in the 1990s with a very simple idea of how people chose, and how choices could be used to measure values. Researchers are now finding that a much more complex range of motivations and information processing issues is clouding the interpretation of stated choice data.

Nick Hanley
University of Stirling, Scotland

Report: Special Session - 'Groundwater and Ecosystems: Economics of Groundwater and Management and the Well-being of Ecological Systems' ▼

By Encarna Esteban, Centro Universitario de la Defensa and Ariel Dinar, University of California Riverside

The special session 'Groundwater and Ecosystems: Economics of Groundwater Management and the Well-being of Ecological Systems' organized by Dr. Encarna Esteban and Dr. Ariel Dinar was held on June 28, 2012. This special session focused on the economics of preserving groundwater related ecosystems. The economic study of groundwater management has been broadly studied in the literature. However, the relationship between groundwater and ecosystems is still scantily analyzed from an economic perspective. Papers in the session emphasized the challenge and importance of maintaining a good ecological status in ecosystems dependent on groundwater bodies.

Four papers were presented:

The first paper 'A water agency faced with quality-quantity management of a groundwater resource' by Katrin Erdlenbruch, Mabel Tidball, and George Zaccour analyzes the problem of a polluted aquifer due to an excessive use of water and fertilizer by farmers. A Stackelberg model is constructed to find the optimal lasting policy that the water agency could financially afford, which also most effective. Under the model assumptions the optimal policies are those that combined instruments (taxes and subsidies) compared with individual regulations.

The second paper 'Escaping externalities – a game theory homogeneous agents' by Agnes Tomini, Katrin Erdlenbruch, Raphaël

Soubeyran, and Mabel Tidball analyzes the best ways to assign water resources for irrigation when groundwater and rainwater storage can be conjunctively managed. The optimal irrigation strategy depends on the relative productivity and cost of each source. Indeed the equilibrium policies include sole GW, sole rainwater, and a conjunctive use of GW and rainwater.

The third paper 'Estimating the marginal social value of agriculturally-driven nitrate concentrations in an aquifer: a combined theoretical-applied approach' by Cyril Bourgeois and Pierre-Alain Jayet analyzes impacts of standards and taxes on nitrate concentrations in groundwater bodies. Applied to the Seine river basin, a marginal social value of nitrate pollution is estimated. With this estimation an optimal groundwater contamination target is implemented. The paper shows how deviations from this target can cause large increases in damages and social welfare reductions.

The fourth paper 'Groundwater-dependent ecosystems: how does the type of ecosystem affect the optimal management strategy?' by Encarna Esteban and Ariel Dinar, studies the relationship between groundwater bodies and groundwater dependent ecosystems (GDE's). To protect GDE's it is necessary groundwater regulation to reduce the extractions and maintain higher groundwater levels. An optimal control model was developed and applied to the Tablas de Daimiel wetland in the Jucar River Basin in Spain, which depends on the Western La Mancha Aquifer. The main contribution of this paper is the study of different ecosystem behavior functions, mimicking different types of ecosystems' sensitivity to groundwater levels. Depending on the type of ecosystems' behavior the optimal groundwater levels change.

Three of the papers in this session focused mainly on agricultural ecosystems and groundwater pollution and one paper focused on wetland ecosystems. Some important conclusions were reached. The mismanagement of groundwater creates severe quality and quantity problems in these water bodies. If all the negative externalities related with groundwater extractions are taken into account, regulation is necessary. There are many management solutions available to users and policy makers. A key element to achieve an efficient groundwater management is the knowledge of ecosystems behavior and their sensitivity to water quality and quantity.

Information on the session and access to the papers can be found by clicking on: www.webmeets.com/EAERE/2012/prog/viewsession.asp?sid=8.

Ariel Dinar, University of California Riverside, USA
Encarna Esteban, Centro Universitario de la Defensa, Spain



Research Highlights

Valuing Natural Capital▼



By Sir Partha Dasgupta, Former EAERE President (2010-2011) and EAERE Council Member

Since the 1970s, valuing environmental resources in the United States has mostly meant valuing environmental amenities and objects of intrinsic value. Sophisticated techniques involving surveys (CVM, travel cost) and the study of market prices of real-estate (hedonic prices) were developed by economists so as to estimate the shadow prices of beaches and parks and endangered species. This was valuable work, but ultimately hugely limiting. The literature has had little to say to someone who wants to study the value to households of their local environmental-resource base in, say the highlands of Ethiopia, or to

someone who wants to develop the way national accounts ought to be prepared. Although there are types of natural capital that are consumption goods, many are producer and capital goods. And in many parts of the world there is no formal market for land.

Why green growth?

In such contexts there is no short-cut to valuation, one simply has to return to the definition of shadow prices and create estimation procedures from the definition.

Last year I accepted an invitation from the Government of India to Chair an Expert Group that the Government was then convening to prepare a Report on Greening India's National Accounts. While preparing the chapters that would form the Report's Conceptual Background (Part I of the Report), I found to my disappointment that there is very little in the way of empirical estimates of the social value of ecosystem services. The monumental four-volume Millennium Ecosystem Assessment was by mid 2011 six years old, but environmental and resource economists had yet to take it seriously. To me that meant "green national accounts", no matter how complete they are in their theoretical design, will contain large blank spaces over the foreseeable future. It meant too that in the foreseeable future "sustainable development", no matter that it now has a sharp theoretical formulation, will remain hazy in its empirical content. Three pieces of information are needed for estimating shadow prices:

- (i) A descriptive model of the economy moving through time, including not only technological possibilities and ecological processes, but also preferences, tastes, values, and policies.
- (ii) The size and distribution of the economy's capital assets at the date at which the evaluation is undertaken.
- (iii) A conception of intergenerational well-being.

In a fine recent survey¹, a group of economists who have taken the economics of ecosystem services seriously tested the prevailing empirical literature on valuation in terms of its adherence to the above three-step procedure. As their own research has been on the services forests provide, they focused on the economics of forest services (carbon storage, ecotourism, hydrological flows, pollination, health, and non-timber forest products). The authors found the literature to be woefully weak in quality. They concluded that although gigantic in size, "... the literature is thin, with few well-designed studies that can provide a coherent picture of ecosystem values or policy effectiveness."

Official ignorance of the worth of natural capital should now be a matter of embarrassment to governments and to the public at large. Although bad news can be a spur to productive work, the economics of ecosystem services faces institutional resistance. Innovative empirical work on the subject requires collaboration among economists and environmental scientists (step (i), above). The problem is, that kind of research earns no kudos from Heads of Departments in today's Universities. To me that's the biggest problem EAERE faces today: How to foster a field of research that is unappreciated in mainstream economics but is, ironically, both intellectually exciting and socially useful.

Sir Partha Dasgupta
University of Cambridge, UK
University of Manchester, UK

¹ "Forest Figures: Ecosystem Services Valuation and Policy Evaluation in Developing Countries," by P.J. Ferraro, K. Lawlor, K.L. Mullan, and S.K. Pattanayak, *Review of Environmental Economics and Policy*, 2012, pp. 1-26.



Tilburg University 85th Anniversary - Honorary doctorate to Professor Sir Partha Dasgupta

On Friday 9 November 2012 Tilburg University celebrated its 85th birthday. The central theme of this anniversary is the social significance of the University, and the celebration included a fitting tribute to the 100th anniversary of the birth of Marga Klompé, the first female minister of The Netherlands. The [dies lecture](#) was delivered by Ellen Johnson Sirleaf, President of Liberia and the first female president in Africa. During the event, President Johnson Sirleaf was presented with an honorary doctorate. Honorary doctorates were also presented to Professor Emeritus Sir Partha Dasgupta (University of Cambridge) and Professor Guido Vergauwen (Université de Fribourg).

Further information available at: www.tilburguniversity.edu/about-tilburg-university/dies/

EAERE Practitioner Achievement Award in Applying Environmental Economics, 2012▼

By Jean-Philippe Barde, EAERE European Practitioner Achievement Award winner, 2012

Dear colleagues and friends,

I am very honoured and grateful for this EAERE « Practitioner Achievement Award in Applying Environmental Economics » which I see not only as a recognition, but also as the outcome of a long standing cooperation with many of you, whom I am so happy to meet again, here in Prague.

I remember when I started at the just created OECD Environment Directorate in 1971. As I was hired, I was then a young and non-experienced economist. This was the time when the "Club of Rome" was raising the issue of the limits to growth. I remember discussions with Alexander King, OECD Director of Science, who was a leading member of this club. This was really a very exiting time...

We were then told two things by the OECD Secretary General: first, OECD Member countries want economic facts and figures about environmental issues; second, as an economic organisation, OECD must develop a robust economic analysis of environmental issues. However, we knew very little about what economics could contribute to: we just were aware of a few names of people having already worked on these issues; so we were asked to contact them and invite them to participate in a think tank in Paris to help us lay the grounds for OECD work.

Thus, during the summer 1971, we organised a series of workshops with pioneering economists, like David Pearce, William Baumol, Hans Opschoor, Karl-Göran Mäler, Wilfrid Beckerman, Alberto Majocchi, to mention just a few.

The outcome of this exercise was an OECD book: « Problems in Environmental Economics » that was presented at the Stockholm UN Conference on Environment in 1972. This book was a landmark in our work; the first penetration (if I may say so) of environmental economics into the international environmental arena.

One of the main outcomes was the definition and promulgation of the Polluter-pays Principle by the OECD Council, late 1972.

This book identified most of the key environmental economics issues we are all still working on, for instance: is there a conflict or trade-off between economic growth and environmental protection? What are the economic roots of environmental degradation? How to define and measure market failures? What are the costs and benefits of environmental protection and how to evaluate them? What are the most efficient policy instruments for environmental policy? What are the distributive implications, what effects on international trade?

This was exactly forty years ago...The reason I am evoking this episode is not to tell you about my life, nor to celebrate an anniversary. But I want to draw quickly a few lessons from this long experience. First, it takes a very long time for important ideas and principles to penetrate the public policy sphere. It takes a lot of effort, patience, persuasion, technical and political skills: efforts to convince that environmental policies must be designed in an economically efficient manner; that cost and benefits must be balanced; that government failures should be corrected, that distorted tax systems should be redesigned to be environmentally friendly; that environmentally harmful subsidies should be removed, etc. etc. All this takes a continuous and deep cooperation and dialogue between the academic community and policy makers.

Significant progress have been made on the policy scene, but still insufficient and slow. For instance, even if green tax reforms have been slowly introduced in a few instances, this remains limited to a small number of countries. Environmentally harmful subsidies are still pervasive all over the world, the costs of inaction in the area of climate change or biodiversity are still largely ignored by policy makers...

Most of these issues are still with us. Yet, science has made considerable progress and the economic analysis has gained considerable accuracy and deepness thanks to people like you. This is what we share in these important meetings.

Second, despite all these progress, we see old evils coming back; let me quote briefly three examples. The reality of global warming is insidiously questioned by people that Claude Henry calls the "snipers of science". I remember the official denial of climate change by the Presidents' cabinet of a large OECD Member country. Or a French renowned scientist and former Minister of Education promoting similar ideas.

Another example is the present anti-economic growth, or "de-growth" movement getting increasing popularity in Europe. This reminds me the reaction of Wilfrid Beckerman to the questioning of economic growth by the Club of Rome, as he published his book: "In Defence of Economic Growth" in 1972.

Finally, reading the abyssal emptiness of the 55 pages final document of the RIO + 20 Conference, we can see that one of the key objective of this Conference i.e. promoting « green growth » (an application of basic principles of environmental economics) is far from being a success.

I do not want to give a gloomy picture saying that another 40 years will be needed to see a real breakthrough of environmental economics into the political sphere... But the battle is never finished. This is one reason you are here. I am also optimistic when I see so many young people attending this Conference.

Dear colleagues, as environmental economists, you play a key role, and I am proud to be member of your community, and still be able to act with you.

I am deeply grateful to all of you, for your continuing effort. Your work provides a unique contribution to address the ever-growing challenges of our planet. Thank you also for the continuing support and advice many of you provided to me during my career at OECD.

Congratulations to EAERE to keep the policy issues high in its agenda.

As I conclude, I want also to pay tribute to my former OECD colleagues with whom I worked so closely and fruitfully.

Let me also express a special gratitude and thoughts to David Pearce with whom I worked almost continuously during more than 30 years, until he suddenly died in 2005. He was my friend and taught me a lot. This award is also a fruit of my cooperation with him.

Let me also thank the organisers of this Conference for inviting me, and for the wonderful organisation and sumptuous hospitality here in Prague.

Thank you to you all.

Jean-Philippe Barde

Former Head of the OECD National Environmental Policies Division, lecturer Paris School of International Affairs, France

This is the transcription of the speech delivered on the occasion of the awarding ceremony of the EAERE European Practitioner Achievement Award, that took place in Prague on June 30th, 2012.

EAERE Member wins the FEEM Award▼



By Itzi Lazkano, University of Wisconsin-Milwaukee

The FEEM Award rewards new ideas addressing key economic issues and it is given to the authors of the three best papers presented by young economists at the annual congress of the EEA. I received this award for my work entitled "Intergenerational Externalities and Sustainable Growth" where I examine how intergenerational externalities distort the demand for clean technologies and why this might be critical for sustained economic growth.

A common view is that to ensure the well being of future generations, the current generation must trade-off economic growth and environmental quality. While this may be true, the costs of sustainable growth are lower when ongoing technological progress provides an innovative set of clean technologies.

The majority of both the classical growth and the new endogenous-growth literature focus on the supply of these new technologies taking as given society's willingness to pay for their implementation. But availability of such technologies does not, in general, guarantee their use. In contrast, my paper focuses on the demand side and how intergenerational externalities distort the demand for clean technologies. By doing so, I highlight another difficulty we face in achieving sustainable growth.

It is well known that current and future generations have limited opportunities for trade or coordination of policies. In the context of sustainable growth, these limitations may have stark consequences since they lower the incentive to innovate clean, long lasting, technologies whose primary benefit falls on future generations. I consider self-interested individuals who neglect the effect of their actions on later generations and only demand clean technologies for their own benefit. In doing so, I show why this might be critical and why supply-side considerations alone may not ensure sustained economic growth.

Within this context, I examine how intergenerational externalities can lead to several surprising results.

First, I show that no-growth and environmental degradation are a possible equilibrium outcome. One may expect that economic growth is fast in economies where agents care little about the environment. However, I show that when agents care little about the environment, environmental quality not only deteriorates but economic growth can be negative. This result deviates from the common view drawn from related work where in the presence of endogenous technological progress both economic growth and environmental quality improve.

Second, I show that in a situation with even moderate natural regeneration, a stronger preference for a cleaner environment will lead to both faster growth and an improved environment. Innovation and capital accumulation generate income for consumption but since the possibilities to innovate are constrained and there are diminishing returns to capital, consumers cannot only consume but must also demand clean technologies. As each generation is born richer, with both a higher stock of knowledge and capital, they allocate a higher share of their income to environmental quality. Hence, faster innovation and capital accumulation are associated with cleaner technologies.

Third, I find that environmental degradation may occur regardless of the strength of individuals' preference over environmental quality. This differs from the conventional wisdom that environmental problems arise when individuals care too little about the environment. If individuals only care about environmental quality while they are alive, a stronger preference for environmental quality can only increase the demand for clean technologies to benefit their own generation while they ignore the negative effect of pollution on the future. Therefore, environmental problems, in my context, do not arise because individuals care too little about the environment, but because they care too little about their children.

Finally, I find that the distortion in the demand for clean technologies leads to environmental degradation. This deviates from the common view drawn from the endogenous growth literature that sustained growth is possible with technological progress in clean technologies. If consumers do not care about the effect of capital accumulation on future pollution, their demand for clean technologies is insufficient to offset the negative effect on the environment.

I had great opportunities to attend several conferences to present this paper. At the EEA conference, the FEEM award was an effective way to publicize my work. The award was presented at the beginning of a plenary session where they summarized my findings. This was especially helpful for me as my work is cross-disciplinary between macroeconomics and environmental economics, and so, it helped me promote my work to a broader audience. Also, as an assistant professor, I found the publicity really useful to discuss my ideas and get feedback from a larger group of economists, and to get invited for seminars.

I am also very thankful to FEEM for their efforts to highlight my research in different forums after the conference.

Two other great opportunities I had this summer were attending the EAERE conference and the Belpasso summer school on sustainable development co-sponsored by the EAERE. The conference is the perfect place to learn about new research in environmental and resource economics since it is a well-attended conference with high quality papers. The summer school, which is fully funded, brings together a small group of researchers, five keynotes and 20 students. I heard great stories about EAERE summer schools when I was a PhD student and still the experience exceed my expectations. The summer school offers a friendly and supportive environment to present and talk about research and receive constructive and extensive feedback. It is a perfect forum to brainstorm new ideas and meet potential future collaborators.

I was also asked to talk about how the EAERE could better integrate young members. I think of ways that could speed up the natural integration process through publishing and networking. For example, discounted registration fees for assistant professors and post-docs, special sessions and social events at the annual EAERE conference or representation at the executive committee might help in the slow process of publishing our work and amidst costly conferences.

EAERE Best Poster Award ▼



By Emmanuelle Lavaine, EAERE Best Poster Award winner, 2012

In year 2012, the Best Poster Award was given to Emmanuelle Lavaine, CES Paris 1 Panthéon Sorbonne - Paris School of Economics and Matthew Neidell, Columbia University for their paper "*Morbidity and Sulfur Dioxide: Evidence from French Strikes at Oil Refineries*". In this original and state-of-the art paper, the authors show how we can use a natural experiment, namely labor strikes at French oil refineries, to understand more about the size of the morbidity impacts of SO₂ emissions. With an original method and thoughtful empirical execution, the paper give rise to potentially significant policy implications regarding pollution standards.

The guided tour has highly improved the poster session this year. Participants have been able to present briefly their paper to an audience within 5 minutes. Comments and questions have been discussed afterwards in more details. The tour

gives more visibility to the author. It encourages the audience to stop to discuss your work, or to focus on a particular issue.

It would be interesting in the next poster session to give equal visibility to all posters. Posters should not be hidden whereas others dispose of good accessibility. Hanging poster all around the wall of a room may be effective. In addition, it may be useful to organize the poster session in a smaller room (not in a hall) to lower the noise when presenting.

Emmanuelle Lavaine
CES Paris 1 Panthéon Sorbonne - Paris School of Economics, France

A New Blueprint for a Green Economy ▼



By Ed Barbier, University of Wyoming, USA

Published in 1989, *Blueprint for a Green Economy* presented, for the first time, a policy strategy for "greening" modern economies and putting them on a path to sustainable development. Sadly, the lead author of *Blueprint*, David Pearce, passed away in 2005, and it fell to Anil Markandya and me to produce a new version of our landmark book. The result is *A New Blueprint for a Green Economy*, recently published by Earthscan from Routledge for Taylor & Francis, which again addresses the main *Blueprint* themes.

Blueprint for a Green Economy was never intended to be a book. Rather, it was a report commissioned by the UK Department of Environment, to assist them in formulating a policy response to the 1987 World Commission on Environment Development – the "Brundtland Commission" – which first defined and popularized the concept of "sustainable development"¹.

Within days of submitting our report to the UK government in August 1989, it was apparent that the topics covered had far-reaching appeal, not only to policymakers and our fellow economists but also to the media and even the general public. Request for copies of the report exceeded our ability to reproduce them.

*Fortunately, Earthscan Publications, which at that time was a subsidiary of the International Institute for Environment and Development (IIED), agreed to publish the complete report as a book. The 1989 Earthscan publication became internationally renowned, translated into many languages, and for some time afterwards, was the top selling book on environmental economics and policy. In 1991, it was awarded the Gambirinus Giuseppe Mazzotti Special Jury Prize. In 2009, *Blueprint* was ranked as No. 14 in the top 50 sustainability books of all time*².

Blueprint had one over-arching theme. Making economies more sustainable requires urgent progress in three key policy areas: valuing the environment, accounting for the environment and creating incentives for environmental improvement. This main message has not changed over time, but it has become critical. Today, with the threat of global warming, the decline in major ecosystems and their services, and fears over energy security, achieving these environmental policy goals is even more vital.

Twenty years on, the New Blueprint for a Green Economy revisits and updates the main messages of the original BGE by asking two questions: first, what has been achieved in the past two decades, and second, what more needs to be done to generate a truly "green economy" in the 21st century?

The book first summarizes the main messages from the original book and explains why, given rapid and widespread global environmental degradation, they are still relevant. We then examine progress over the past two decades in implementing policies and other measures to improve environmental valuation, accounting and incentives. Although much has been accomplished, additional advances in policy are still required to green economies successfully. Thus, much of the book highlights the new policies and economic approaches needed for sustainable management of today's environmental concerns.

Blueprint successfully placed the economics of sustainable development on the policy agenda. Over 20 years later, The New Blueprint for a Green Economy emphasizes practical policies for greening modern economies, and argues that such an economic roadmap to a greener future is essential. Modern economies have the opportunity to develop successfully and sustainably, as a means to ensuring the wellbeing of current and future generations.

Edward B. Barbier
University of Wyoming, USA

¹World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press, Oxford and New York.

²Visser, W. 2009. *The Top 50 Sustainability Books*. Greenleaf Publishing, Sheffield, UK, a publication of University of Cambridge's Programme for Sustainability Leadership as part of the 800th anniversary celebrations of the University of Cambridge and the 20th anniversary of the Cambridge Programme for Industry (CPI).

National Resource Discoveries: a Blessing for the Wise ▼

By Leonor Coutinho, University of Cyprus and Theodoros Zachariadis, Cyprus University of Technology and EAERE Cyprus Country Representative

Recent discoveries of natural gas reserves in the Eastern Mediterranean have generated certain euphoria among politicians and the population, and a certain sense of relief from the pressures imposed by the global financial crisis, which started in 2008 and is expected to endure well into 2013 for many countries. This optimism is due to the anticipation of the future growth and wealth that the exploitation of the natural gas may soon bring to the region. It is important to notice however that, according to the literature, such expectations may or may not materialize. Experience shows that the exploitation of natural resources in a country poses many challenges, which only sensible choices and good policymaking can overcome.

This note is meant to highlight these challenges, and leave a note of caution which is important at the stage when countries are in the process of defining their exploitation regimes and the institutions that should deal with the management of such resources¹. They are also useful for countries that realize that they have stepped into the wrong direction and want to reform the way they handle their natural resource management.

One of the well-known challenges of natural resources is real exchange rate appreciation, which poses a problem for other sectors of the economy to grow, and results in some degree of specialization of the country in the natural resource sector, with the accompanying risks that the overreliance on one economic activity implies². Even countries like Norway, which is commonly cited as a success case in natural resource management, did experience at some point pressures on labour costs and prices, which have limited the penetration of non-resource related exports in external markets³. This is an issue which countries should think about. Real exchange rate appreciation could "kill" export based sectors that rely on relatively low costs and prices to be competitive, such as certain segments of tourism, and certain industrial activities with low levels of differentiation, unless specific action is taken to help these sectors cope with the pressure on costs and prices to increase, driven by the influx of foreign exchange, and the ensuing increase in demand particularly for non-tradables. Sterilization of foreign exchange revenues can help but will not eliminate the problem, and foreign exchange rate intervention is not always successful and not always possible (e.g. in EMU), hence structural reforms most probably have to accompany⁴.

Another important challenge is macroeconomic volatility. Most resource prices are subject to booms and bust cycles, which are translated into booms and busts in natural resource revenues⁵. Without a proper management of these revenues, they can translate into booms and bust cycles for public expenditures, including investments, and into asset price bubbles, including real estate bubbles, which will further amplify the economic cycle and have devastating effects when they burst. Strict controls over the use of revenues and over fiscal policy, and incentives to savings are needed to prevent fiscal and strong asset price procyclicality⁶.

Equally important is to understand that natural resources are exhaustible and that their exploitation has (to different degrees) current and future impacts on the environment. The decision to exploit should be taken with a clear idea of the risks and associated current and future costs of environmental degradation⁷. The exploitation and the management of resource revenues should also be undertaken with a permanent income perspective, so that the wealth can be saved for the benefit of future generations. It is possible to achieve inter-generational equity with the use of savings vehicles, such as national wealth funds and with the use for revenues mainly for the purpose of improving infrastructure that can also benefit generations to come (e.g. improvement of transport infrastructure, reform of health and education systems, investment in human capital, research and development, reforming pensions systems and investing in ageing related infrastructure)⁸.

The culminating challenge, however, is perhaps to escape the "voracity effect"⁹. When there are large rents to be distributed, issues of governance and institutional quality become particularly important¹⁰. Reforming existing institutions, and creating the appropriate ones to oversee the exploitation of natural resources and the management of revenues can be crucial to a "success story". Transparency and control over the amount of revenues available each period becomes very important. With this respect, some exploitation regimes can be said more transparent than others. Regimes that rely more on the taxation of oil companies (e.g. Norway) can be more transparent than regimes that operate mainly through production sharing agreements or a National Oil Company, which tend to be more secretive¹¹. In any event, it is not sufficient to create new institutions that follow international best practices, but it is important to reform the existing ones, because these will have to interact at some point (e.g. existing tax authorities, ministry of finance, ministry of commerce, etc.). Transparency and control at all governance levels is crucial to prevent the "voracity effect" from letting valuable resources be wasted.

Leonor Coutinho
Director of Europrism Research Ltd., Economics Department of the University of Cyprus, Cyprus
Theodoros Zachariadis
Cyprus University of Technology, Cyprus

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It is ... an ETS! ▼



By Anke Leroux, EAERE Australian Country Representative

After a failed attempt to introduce emission trading legislation in 2010, Australia successfully implemented its carbon pricing scheme in July 2012. While commonly referred to as a carbon tax, it is really an ETS to be rolled out over several phases. Until 2015, an un-capped number of permits will be sold at a fixed price of \$23, rising at 2.5% per year.

This is followed by a cap and trade system with some provisions for a price ceiling until 2018. The objective of the carbon price is to ensure that Australia meets its Cancun pledge of reducing greenhouse gas emissions by 5% relative to 2000 levels by 2020. Caps are pre-announced for a five-year period, but legislated default caps are in place to ensure the emission reduction goal is achieved. The scheme covers 60% of Australia's emissions and less than 400 liable entities.

In particular, it covers the energy sector, industrial processes, fugitive emissions and waste. Domestic aviation, shipping and rail are covered via a fuel tax. The agricultural sector is not subject to a carbon price, but under the Carbon Farming Initiative it is eligible to produce offset credits for sale into the trading scheme.

Around half of the initial carbon revenue is redistributed to low and middle income households via income tax cuts and another 40% is allocated to assistance packages to emission intensive and trade-exposed industries.

The early experiences and future challenges of the carbon price were recently discussed at a workshop organised by John Quiggin's Risk and Sustainable Management Group in Brisbane. The general feeling was one of success despite some limitations of the scheme.

The roll out of the carbon price has been very smooth with electricity generators passing on the carbon price to consumers to the extent predicted by most economists and no one in the political opposition. The smooth roll out was partly helped by the fact that Australian firms have been required to monitor and report their carbon emissions since 2008 and have therefore been aware of what their liabilities would be once the carbon price was put in place. Since the inception of the scheme, a number of coal-fired electricity generators have scaled back their operations or announced their closure. However, to what extent these closures are due to the carbon price rather than other policies such as Australia's renewable energy target, or to general economic conditions, are subject to debate. In any case, the carbon price would have influenced the decision as to which power stations would face closure.

Negotiations around linking Australia's scheme internationally have happened rather quickly: the linking to the European ETS was approved in August and there are prospects of linking into the New Zealand and other schemes in the region.

Despite these positive developments, there is a question mark hanging over the future of the Australian carbon pricing scheme. There is a realistic chance that the current government will not be re-elected next year and the leader of the opposition, Tony Abbott, has made it his election promise to abolish the carbon tax. However, the smooth roll-out of the scheme, the agreement to link it to the European ETS and the income tax cuts that were a direct result of the carbon price would make it politically very costly to honour this promise.

Anke Leroux,
Monash University, Australia

Some Recent Activities of the Austrian chapter in EAERE ▼



By Karl Steininger EAERE Austrian Country Representative

(1) As a follow-up to organizing the Annual Meeting of the Austrian Economic Association on environmental economics (2011), we published a special issue of *Empirica* on "Climate and Global Change" (2/2012) For details see: www.springerlink.com/content/n84751134178/

(2) A workshop series of Annual meetings of "Austrian Environmental and Resource Economists" was launched, with its inaugural meeting March 2012 in Innsbruck (as announced on the EAERE homepage / events section)

(3) The Climate Change Centre Austria was founded in 2011, which comprises the climate change (and respective economic) competences of 21 universities and extra-university research institutions. See <http://ccca.ac.at/?lang=en>
Since April 2012 the Climate Service Centre within this framework has taken up its activity.

(4) An "Austrian" version of the IPCC report – i.e. an Assessment Report on Climate Change in Austria – is currently prepared, and will be ready by 2013. <http://www.apcc.ac.at>

Karl Steininger
University of Graz, Austria

Policy Commentary

Thomas Sterner to work for the Environmental Defense Fund in New York ▼



By Thomas Sterner, Former EAERE President (2008-2009)

Thomas Sterner has been recruited as Visiting Chief Economist at the Environmental Defense Fund (EDF) headquarters in New York. EDF is one of the larger and most influential of environmental think tanks or advocacy groups in the USA. It was once formed around the struggle to ban DDT in the wake of Rachel Carson's *Silent Spring* and has since then succeeded in promoting radical change through such mechanisms as permit trading for sulphur and the promotion of catch shares in fisheries. As these examples indicate, EDF is very conscientious about their work being based on sound science and economics and they therefore employ a staff of both economists and scientists to make sure that the organisation continues to adhere carefully to the latest in scientific evidence.

Sterner normally works as professor of environmental economics in Gothenburg, Sweden where he has built up the Unit for Environmental Economics which is one of the more important European centres for environmental economics and gives a unique PhD program in climate economics with many graduate students from developing countries. Sterner was president of EAERE 2008-9. Currently Professor Sterner is also a Coordinating Lead Author of IPCC AR5 WGIII and an associate editor of the journal *Environmental and Resource Economics*.

Sterner has published widely on environmental policy instruments with applications to energy and climate, industry, transport economics and resource management in both rich and in developing countries. Joining EDF he now finds himself working in an organisation of over 400 employees across the US and with offices in many other countries. His work spans climate and energy related issues, fisheries as well as various other environmental and conservation topics. "I actually find myself working much closer with policy makers, both in government and in industry here than in academia" says Sterner who thinks he will learn a lot on the design and implementation of policy through this interaction. He hopes to help broaden the discussion of policy instruments through his broad international as well as research experience.

Thomas Sterner
University of Gothenburg, Sweden

Visit by EAERE members Håkan Eggert and Thomas Sterner to the European Parliament to discuss reform of EU fisheries policies▼

By Thomas Sterner, Former EAERE President (2008-2009)

A fisheries reform package is under discussion in the EU Parliament and the Council of Ministers with the aim of more sustainable Common Fisheries Policy. This includes both an overhaul of the basic regulation (COM(2011) 425 final) and the European Fund for Fisheries and Maritime Affairs (COM(2011) 804 final).

Following the principle that it is not enough to do research and publish "policy relevant" research – that you actually sometimes may have to engage the policy makers more directly, a few of EAERE environmental economists including Håkan Eggert and myself travelled with a group of Swedish marine biologists, legal and other experts – including Peter Olsson, Chair Demersal Committee, Swedish Fishermens Federation to Brussels to participate in a couple of related events in April 2012.

I was invited as an expert by the Committee on Fisheries of the European Parliament on 24 April, at 15.30-18.30 to speak about managing fishing overcapacity and spoke on the subject "The feasibility of Transferable Fishing Concessions in the context of Common Fisheries Policy Reform". There was a good discussion with a wide range of views from those opposed to any regulation on the one hand to those who approve of the current fishery policy with subsidies and many rules but little effective control of effort on the other. On the following day, the University of Gothenburg organized a panel in the European Parliament with various speakers including Håkan Eggert, Associate Professor in Environmental Economics. Other panelists were researchers of various disciplines, Peter Olsson, a representative of the Swedish Fishermen's Federation and Members of the European Parliament such as Isabella Lövin, author of the renowned book *Silent Seas*.

The panel discussed the use of 'good' and 'bad' incentives for sustainable fisheries and highlighted how incentives in the CFP and EMFF proposals can reinforce or work against one another. Some of the incentives under discussion include the use of rights based management (RBM) approaches under the form of the TFCs (transferable fishing concessions) and the use of subsidies. The panel discussed how to ensure well-designed incentives (e.g. designed to accommodate fisheries' individual characteristics and needs), and efficient implementation (including financial support) could lead to more environmentally, socially and economically sustainable fisheries.

"EU fish stocks are to a large extent overexploited and EU fisheries have problems with overcapacity in terms of vessels and poor profitability. EU must aim towards management where fishers and the industry are motivated by a long term stake in fisheries. Such incentives are given by Transferable Fishing Concessions (TFCs), which means that the right to catch a share of total landings for a fish species is well defined. Recent research shows that TFCs facilitate increased landing values and compliance with regulation and at the same time reduces the amount of fish that is wasted by discards. A more widespread use of TFCs within EU is one important step towards sustainable fisheries", says Håkan Eggert. Thomas Sterner
University of Gothenburg, Sweden

[Eggert at European Parliament](#)[Sterner at European Parliament](#)

Report on EAERE representation and the Socio-Economic Assessment Committee under the EU's REACH Regulation▼

Mike Holland, Katarina Gårdfeldt, EAERE delegates at ECHA, and Stavros Georgiou, Chemicals Regulation Directorate, UK Health and Safety Executive, UK

REACH is the Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals which entered into force on 1st June 2007 and replaced the former legislative framework on chemicals of the European Union (EU). The principle aim of REACH is the protection of human health and the environment, which may be affected by negative externalities associated with chemical production and use. The general approach to achieving this aim is by placing some form of regulation on the way in which a chemical can be manufactured and used, either through the need for registration, authorisation or a restriction.

EAERE has observer status at meetings of the Socio-Economic Assessment Committee (SEAC) convened at the European Chemicals Agency (ECHA) in Helsinki, under the REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) Regulation. The Committee for Socio-economic Analysis (SEAC) prepares the opinions of ECHA related to the socio-economic impact of proposals for legislative actions under REACH. The REACH processes of most relevance to SEAC concern the evaluation of:

- Dossiers proposing Restriction of specific chemicals, either in the form of an outright ban, or subject to use; and
- Applications for Authorisation, where companies seek permission to use specific substances in specific applications where they would otherwise be banned.

SEAC's role is primarily to assess information on socio-economic aspects of the dossiers/applications, to assess whether a restriction or authorisation would serve the best interests of society. In this respect, SEAC collaborates closely with another technical committee under REACH, the Risk Assessment Committee (RAC), which has specific expertise in the risks to health and the environment of chemicals and in risk management.

Members of RAC and SEAC are nominated by most EU Member States and Norway, and are required to act independently of national or other external influences in their evaluation of dossiers and applications. The committees then present their opinions to ECHA. The final decision on whether to accept or reject a restriction or application for authorisation are taken by the European Commission through a regulatory committee procedure. Stakeholders, including EAERE, organisations representing European industry and NGOs are present as observers to the committees. They are free to contribute to the debate, but have no role in the formal adoption of an opinion by either committee.

Proposals for legislative actions are prepared in accordance with the REACH regulation and in this respect guidance has been

published by ECHA for undertaking SEA in the context of both restriction and authorisation. Key elements from that guidance and the associated challenges in preparing proposals include:

- Knowledge of the market for chemicals and related products. Associated supply chains can be long and involve numerous actors. In some cases final products may contain very little or none of the chemical under investigation, for example where substances are used to catalyse reactions.
- Quantification of impacts of chemicals on health. This is most straightforward for assessment of occupational health impacts, given the relative strength of epidemiological literature and the availability of exposure data. Assessment of effects on public health is more complex. Exposure models are needed and there is greater potential for thresholds to affect impact. Greater potential for interactions between chemicals in the environment should also be considered.
- Quantification of impacts of chemicals on ecosystems. Traditional methods for ecological risk assessment do not tend to provide data in a form amenable to economic appraisal. This issue has not affected the analysis so far considered under REACH, as all of the substances investigated by SEAC have been of interest primarily for their effects on human health. It will inevitably become more prominent in the future. Knowledge on impact on ecosystems from diffuse sources is lacking and needs to be improved.
- Monetisation of impacts. Again, an issue that is relatively straightforward for health effects, but far more difficult for effects on ecosystems, partly because of the lack of estimates of impact in a form amenable to monetisation, but also because of the likely diversity of impacts on ecosystem services. It remains to be seen how these effects can be properly factored into the analysis.
- Analysis of alternative substances, techniques, products, etc., that would be required if a restriction is put in place or an application for authorisation is refused. This can range from simple substitution of one chemical by another with no alteration to process, to major changes in final products. A further possibility is that manufacture moves out of the EU.

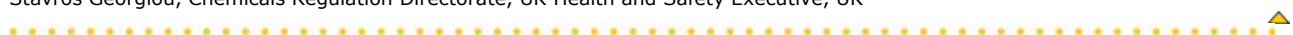
A final challenge concerns informational asymmetry. Regulators must inevitably rely on the industries likely to be affected by their decisions for much of the data required for assessment.

ECHA and members of EAERE have been making efforts to increase knowledge, awareness and interest in REACH and the socio-economic analysis of chemicals risk management. In particular, the previous two EAERE annual conferences in Rome and Prague have hosted special sessions on Economic Analysis and Regulation of Hazardous Chemical Substances. The aim has been to enhance the dialogue between academia and practitioners on the challenges faced in undertaking SEA analysis for the purpose of REACH. The sessions have been well attended and it is hoped to organise a similar event at next year's conference in Toulouse.

In the coming years, SEA under REACH will be one of the most dynamic areas of applied environmental economics in Europe. EAERE's representatives are providing independent advice to SEAC on a variety of questions, reflecting the challenges recognised above. This role is especially important given the limited number of experienced practitioners in the field.

For further information contact the EAERE reps on SEAC – Mike Holland and Katarina Gårdfeldt via the EAERE Directory.

Mike Holland, Ecometrics Research and Consulting (EMRC), UK
Katarina Gårdfeldt, Centre for Environment and Sustainability, GMV, University of Gothenburg, Sweden
Stavros Georgiou, Chemicals Regulation Directorate, UK Health and Safety Executive, UK



Oil price effects of transport regulations ▼

Snorre Kverndokk, Ragnar Frisch Centre for Economic Research and CREE – Oslo Centre for Research on Environmentally friendly Energy

Knut Einar Rosendahl, Statistics Norway and CREE – Oslo Centre for Research on Environmentally friendly Energy

Many studies have established the need for ambitious international climate agreements and strong domestic climate policies. Early steps include the Kyoto Protocol and the EU Emission Trading System, and these and future efforts will have important consequences for the oil market. At the same time, energy-importing countries are concerned about energy security and oil dependency.

Most developed countries are net oil importers, and the fact that one-third of global oil exports come from the Middle East brings forth concerns about macroeconomic disruption costs from potential oil price shocks, constraints on foreign policy, and possible funding of terrorist activities by oil revenues. Europe and the United States are expected to increase their import dependency on oil over the next decades as their own supplies are falling, whereas OPEC may increase its market share and, consequently, its market power. Both climate change impacts and energy security call for policies to reduce oil demand in most oil-importing countries.

Transportation accounts for more than 50% of total world liquids consumption, and the share is expected to increase. Furthermore, the world's transportation systems are more than 90% dependent on oil products, and few alternatives can compete widely with oil in the current transport market. Thus, the transport sector is essential when studying oil demand. This sector already meets several regulations, and it is likely that policy makers will continue to focus on transport to reduce oil demand.

The effects of regulations obviously depend on the regulatory instrument. In addition, the effects may differ under different market structures. The oil market can hardly be considered competitive, as OPEC exhibits at least some degree of market power. In a recent study (Kverndokk and Rosendahl, 2012) we analyze the impacts of different types of transportation regulations in the presence of market power, and compare them with the corresponding impacts in a competitive market. We consider three different types of policy instruments: a fuel tax, a required share of biofuels in the transport market, and a fuel efficiency standard. An important finding is that in the presence of market power, the oil price effect may crucially depend on the chosen instrument.

In a competitive market with increasing marginal costs, reduced consumption goes along with a lower producer price, irrespective of policy instrument. The reason is simply that the producer price equals marginal costs. Thus, if different instruments lead to the same consumption reduction, the price reduction will also be the same across instruments.

This is not the case under market power. Indeed, the price effects highly depend on the choice of policy instrument. Using theoretical analysis, we show that in a closed monopoly market, increased fuel-efficiency standard will unambiguously increase the price of oil as long as consumption is decreased. This result is independent of assumptions about demand and cost functions (except the signs of first derivatives). The reason for this outcome is that a higher fuel efficiency makes the demand curve steeper, thereby giving the monopolist more incentives to cut back on its supply while increasing profits.

The oil market is not a monopoly market, and policies are rarely introduced globally. Yet, in a simple numerical analysis calibrated to the current oil market with OPEC as a dominant producer, we find that increased fuel-efficiency standards in both the U.S. and the EU may in fact lead to higher oil prices. This is probably not what the policy makers are hoping for, or is it?

Price effects are important for a number of reasons. For instance, a regulating body may care about the distribution effects between oil producers and consumers. In addition, an oil-importing country may worsen its terms of trade if the oil price rises, and vice versa

for an oil-exporting country. The effects on the oil price may also be important if an international climate treaty is in place. If not all countries have signed the treaty, a lower oil price may increase oil demand in non-signatory countries and lead to unwanted carbon leakages.

With market power in the oil market, we conclude that policymakers should also think of the price effects when they choose policy instrument. Policymakers' preferences with regard to price effects may of course differ. If they are particularly concerned about too high profits for big oil producers, or their oil import bill, they should think at least twice before introducing fuel-efficiency standards as this policy may well increase the price of oil. A fuel tax is much more likely to reduce the oil price, and probably also biofuel standards. If policymakers are more concerned about carbon leakage, or if their country happens to export oil, the conclusions naturally become completely turned around. The same reasoning also applies to oil producers, who would find it in their interest to lobby for fuel-efficiency standards rather than fuel taxes and biofuel shares.

Naturally, other issues also come into play when choosing between policy instruments, such as cost-effectiveness of different instruments. Moreover, some instruments may not be able to provide the desired demand reductions. This could e.g. be the case with fuel-efficiency standards if the rebound effect is too strong. In our study we find that if a small region introduces fuel-efficiency standards, and there is market power on the supply side, the outcome may well be higher oil consumption.

Other policy instruments than those we have discussed are of course also possible such as oil price floors, feebates and ad valorem fuel taxes. An ad valorem fuel tax is interesting as it causes a change in the slope of the inverse demand curve. However, while the slope becomes steeper for biofuel shares and fuel efficiency standards, it becomes flatter with an ad valorem tax. Thus, such a tax will most likely lead to lower oil prices also under market power.

Snorre Kverndokk, Ragnar Frisch Centre for Economic Research and CREE – Oslo Centre for Research on Environmentally friendly Energy, Norway

Knut Einar Rosendahl, Statistics Norway and CREE – Oslo Centre for Research on Environmentally friendly Energy, Norway

Reference

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Australia's carbon price: innovative design, tricky politics▼



Frank Jotzo, Crawford School of Public Policy, Australian National University (ANU)

After many years of policy development and political debate, Australia has introduced a carbon pricing mechanism. The policy has a number of innovative features, including broad coverage of emissions sources, recycling of permit revenue including income tax cuts, and phasing in with a fixed permit price before linking with the EU ETS. However the policy's political durability is not assured.

The carbon price, which came into effect on 1 July 2012, covers over 60 percent of Australia emissions. It includes most emissions from fossil fuel combustion. It also includes industrial emissions and fugitive emissions from waste and fossil fuel extraction. Only agriculture, forestry and fuel use by private cars and small commercial vehicles are excluded; agriculture and forestry meanwhile are included in a domestic offset mechanism.

Coverage

Revenue recycling

Australia's carbon pricing mechanism is among the largest ever instances of 'green' fiscal policy reform. Government provides financial assistance to households, by way of income tax cuts and increases in welfare payments. The value of household assistance is over half of the value of permits, estimated around A\$9 billion (7 billion euros) per year during the first three years of the scheme's operation.

The income tax relief results in lower marginal tax rates at the bottom end of the income distribution. This is expected to result in efficiency gains by reducing disincentives to workforce participation particularly in part-time low-paid jobs. However, there is also a strong redistributive component. The majority of lower income households will be overcompensated for the increase in living costs, even before accounting for any changes in consumption patterns. Targeting household assistance at lower income groups has been a strategy by the government to shore up electoral support.

The majority of permits will be sold or auctioned rather than allocated for free. Nevertheless, industry also receives substantial assistance. Emissions intensive trade-exposed industries (such as steel, aluminium, gas and others) will get free permits benchmarked by activity and linked to output. The aim is to compensate them for losses in competitiveness, while retaining full incentives for improving emissions intensity. Cash payments and free permits will also be given to the most emissions-intensive coal fired power stations and coal mines. These payments on the whole have no sound economic justification, and can be viewed as a result of lobby pressures.

Fixed price phase

The scheme starts out as a so-called "fixed price" model, which acts like a tax. An unlimited amount of permits are available for sale from the government at a predetermined price. The price is currently A\$23 (19 euros) per tonne of CO₂ equivalent and will rise to A\$25.40/t in 2015. Neither international trading nor banking of permits is allowed during the three-year fixed price period.

The fixed price model allowed breaking a deadlock in negotiations between the government and Greens party, as it did not require definitive agreement over the scheme cap (amount of permits to be sold). It also makes fiscal revenues and impacts on price levels more predictable, and allows more time to prepare for market-based trading, and has made it easier to assess and communicate the likely effects of the policy on consumers. EU ETS linkage

In mid-2015 emissions trading is to start, with a fixed number of permits sold at auctions. An agreement has been struck with the EU on linking the two emissions trading schemes. From 2015 to 2018, there is to be 'one-way linking', meaning that EU allowances will be eligible for acquittal in Australia but not the other way around. From 2018 there is to be two-way linking.

The price is likely to be the same in the two schemes, with the price dominated by EU policy settings and the EU supply/demand balance. Australian emitters are expected to buy permits from the EU, after exhausting a quota of emissions credits from the Clean Development Mechanism, as the underlying stringency of the Australian emissions target is significantly greater than that of the EU target. Australia's target is for at least a five percent reduction in national emissions at 2020 relative to 2000. This means a large abatement task because there is strong underlying emissions growth, due to fast population growth and economic expansion including in energy intensive resource sectors. This is in marked contrast to underlying trends in the EU.

The outlook for a relatively low carbon price in the EU ETS (and thus in Australia) means that relatively less abatement will be undertaken in Australia, and more emissions units will be imported from the start of the trading phase in 2015. This is of course in the economic logic of achieving emissions reductions globally at least cost. Yet it is likely to underachieve on the policy objective of getting Australia's energy system onto a lower-carbon trajectory. The original Australian legislation, recently amended, foresaw a price floor for a three-year period 2015-18, starting at \$15 per tonne. Linking with the EU scheme was anticipated to occur further down the track. However, political support for the price floor waned amid opposition from industry, at the same time as EU linking became – many would say unexpectedly – a possibility for the near term.

Policy uncertainty

For ambitious climate change policy to be legislated is a remarkable development for Australia, the world's second largest coal exporter and among the highest per capita emitters. Both sides of politics have reiterated their commitment to reducing Australia's net national emissions. Nevertheless, policy uncertainty is pervasive.

After initially supporting plans for an emissions trading scheme, the Liberal/National conservative opposition parties since late 2009 have been opposing carbon pricing, and their leader has pledged to repeal the legislation if and when in power. On current polling, the opposition is expected to win an election due by late 2013. On the other hand, repeal would likely face a drawn-out parliamentary process including a special general election after a change in government, and the issue of carbon pricing appears to be losing its political salience. Expert opinions are divided over whether the scheme will remain in place or not. If it is repealed, then the most advanced carbon pricing scheme to date could also be the shortest lived one.

Frank Jotzo

Crawford School of Public Policy, Australian National University (ANU), Australia

Relevant resources:

- Various relevant analyses have been done at the ANU Centre for Climate Economics and Policy, see ccep.anu.edu.au.
- Australia's Garnaut Climate Change Review, a government-commissioned independent review, investigated a wide range of economic and policy aspects of climate change for Australia. See www.garnautreview.org.au.
- Detailed information about the legislated provisions, along with modelling of the carbon price by the Australian government, can be found at www.cleanenergyfuture.gov.au/clean-energy-future/our-plan/.

News from the European Commission

Global Europe 2050 foresight report

The GLOBAL EUROPE 2050 report has been published and is available onec.europa.eu/research/social-sciences/fwl-experts-groups_en.html with other background material like the "State of the art of forward-looking activities beyond 2030".

The /Global Europe 2050/ foresight report presents and quantifies three scenarios that identify the main pathways Europe could follow in the coming decades.

Research Funding: European Commission, 7th Framework Programme



Check the FP7 open calls at [here](#)

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27-30 June, 2012

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Deadline for submission of papers: February 1st, 2013



30 June - 6 July, 2013

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[Call for Proposals - Scientific Exchange and Dissemination in Environmental and Resource Economics](#)

Deadline for Applications: February 15th, 2013

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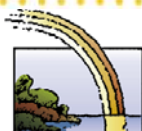
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Editor: Phoebe Koundouri. Email: editor.NL@eaere.org

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