

## A Word from the President

One of the permanent considerations within ecological economics is how best to demonstrate the value of our work in policy and strategic decision-making contexts. Environmental and sustainability problems are complicated, and bureaucracies often seek apparently simple and "well tried" solutions. So one important opportunity for the promotion of innovative approaches comes when the "tried and true" approaches are seen to fail even by those who have sponsored and commissioned them.

As an example, take the work of the World Commission on Dams (WCD) which, since 1998, has been charged to conduct an enquiry about past experience with major dam projects around the world, in order to recommend guidelines for better practice in project appraisal in the future (<http://www.dams.org>).

The WCD is currently undertaking a series of thematic reviews as part of its deliberations on principles, criteria and guidelines for the assessment of large dams. The Commission is starting from the recognition that financial, economic and distributional analyses - notably cost-benefit analyses - are often criticised for their inability to adequately capture the full range of costs and benefits associated with large dam projects. They say that "Economic theory and methods however, have advanced significantly over the past three decades, but the experience with incorporating these advances into current practices is mixed", and they add that efforts to improve practice "must give due consideration to the wide variety of socio-economic contexts in which dam projects are planned and executed".

This is the sort of conjuncture where inputs from ecological economists can take on real importance. Examples of alternative appraisal procedures which have led to more satisfactory results, e.g., better integration of stakeholders and conflict resolution through negotiation or multi-criteria procedures, can help to show

that quick and dirty CBA is not "the only thing available". The sorts of questions that the WCD is asking include:

- What information should be included in financial, economic and distributional analysis and how should this information and resulting decision criteria feed into the appraisal and decision-making process?
- What are effective procedures for evaluating dam project impacts, including both the direct water-related impacts and also the range of non-market impacts of the dam in a perturbed socio-economic and ecological context?
- Large dams involve the investment of large sums of money and produce cost and benefit streams that extend far into the future. What are the most satisfactory ways of addressing the intertemporal nature of dam appraisal (including such issues as discounting, risk and uncertainty, ecological and economic dimensions of sustainability?)
- Due to their nature as major capital investments and their effect on the development of entire river basins, large dams have repercussions for the economy as a whole and generate impacts that are felt, not only by those close to the dam, but by national and international stakeholders. How should such large-scale environmental, socio-economic and sustainability issues be analysed and assessed?

I think that we - ecological economists - should continue our work, while being aware of this "new deal" for economics. It's up to us to make our expertise known.

Please also remember the upcoming ESEE 2000 conference in Vienna - if you have not yet sent in your abstract, don't forget that our biennial conferences are important events for discussions and for the evolution of our discipline. ■

Sylvie Faucheux

## Announcement of Elections to the European Society for Ecological Economics

Dear ESEE Member,

The elections will take place in two phases. First, this announcement is a call for nominations for the offices of President, Vice President, and members of the Administrative Council which is detailed below. The closing date for nominations is the 15<sup>th</sup> January, 2000. Second, a vote of **fully paid** members registered with the ESEE will be conducted by mail ballot to decide amongst the nominated individuals. Note this is a change in procedure to allow members unable to attend the general meeting to vote. (In previous elections ESEE voting has taken place at the biennial conference.)

President : Vice-Presidents (2) : Members of the Administrative Council (7)

I hope you will find the procedures to be followed as stated below self explanatory. If you have any specific questions or concerns regarding voting please contact me ([cls27@cam.ac.uk](mailto:cls27@cam.ac.uk)).

Clive L. Spash - Vice-President. ❖

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# Nominations Procedure for the upcoming ESEE Elections

☞ All persons standing for office must be fully paid members of ESEE ☞

## Nominations for the President

Those standing for the office of President will require support of 5 fully paid members of the ESEE who should be named in the submission. Candidates must provide an half page (12 pt. single spaced, in English) statement of intent for the development of the Society; plus any intentions as to changing arrangements for the running of the Secretariat. The presidential candidate must supply a short one page curriculum vitae. In summary the documents required are:

- named and agreed support from 5 fully paid ESEE members;
- an half page candidate statement including proposed administrative arrangements;
- short one page CV of presidential candidate.

These details will be supplied as part of the election process to ESEE members.

## Nominations for the Vice President

Those standing for the office of Vice President will require support of 5 fully paid members of the ESEE who should be named in the submission. They must provide a one page (12 pt, single spaced, in English) curriculum vitae which shows

their ability to represent Ecological Economics as a distinctive field in Europe. In summary documents required for each candidate are:

- named and agreed support from 5 fully paid ESEE members;
- a short CV of the vice presidential candidate.

These details will be supplied as part of the election process to ESEE members.

## Nominations for the Administrative Council

Those standing for the Administrative Council will require support of 3 fully paid members of the ESEE who should be named in the submission. They must provide an half page (12 pt, single spaced, in English) statement of their qualifications and intended contribution to the Council and Society. In summary documents required for each candidate are:

- named and agreed support from 5 fully paid ESEE members
- a short statement of intent and background

These details will be supplied as part of the election process to ESEE members.

## Where to Send Nominations

Nominations, including the complete set of documents requested above, should be received by the ESEE Secretariat on or before 15<sup>th</sup> January 2000. The address is:

Claudia Carter - ESEE Secretary (Elections)  
19 Silver Street - Cambridge CB3 9EP - UK  
E-mail: [cec@cam.ac.uk](mailto:cec@cam.ac.uk)

# Opinion

## **Risk and Uncertainty in Ecological Economics - ESEE Vienna 2000**

*By Franz E. Prettenhaler and Karl W. Steininger, University of Graz, Austria*

The proper treatment of risk and uncertainty within environmental decision making was always of central concern to researchers within the ecological economics community. Outside these circles, when it comes to uncertainty, it is the continuing heated debate of expected utility theory (shaking the foundations of mainstream economic theory and traditional welfare economics) that deserves our interest also for epistemological reasons. Finally, the Human Dimensions of Global Environmental Change research witnesses a growing number of social scientists and national research agendas, that focus on the human perception of risk and how risk and uncertainty shape the key global change issues.

There are three reasons, thus, why the ESEE 2000 conference seeks to supply the forum for an in depth discussion of the aspects that pop up when risk and uncertainty are to be accounted for in our analysis. First, it will certainly be a welcomed opportunity for many of us who have published in this field to review these discussions and look for common ground. Second, since debates about the validity of traditional environmental economics often

have been very lively at ecological economics conferences, this issue could help focus such criticism and elaborate the differences in more detail. Third, given the growing number of researchers dealing with risk in global change issues, a focal point on risk and uncertainty at this conference could also turn out to be of great practical relevance for applied research projects.

While there are thus good academic reasons for promoting such a focal point at ESEE 2000, there should be no doubt, that how risk is shared between that societies is of great concerns around the globe. This adds even more urgency to the call for a better understanding of these issues.

This is how risk and uncertainty will be addressed at ESEE 2000: In addition to contributed sessions on risk and uncertainty, an ecological economics perspective will be discussed by one of the planned panels. The aim is to bring together sociology (Carlo Jaeger, CH) and economics (Andrew Stirling, UK), chaired by Jill Jäger from the International Human Dimensions Programme.

## Evolution of and Structural Change within ISEE

By Clive Spash, Department of Land Economy, University of Cambridge, England

### 1. Background Information

Early in 1998 the President of ISEE, Dick Norgaard, requested that ESEE submit formal proposals for reform and I was given the task of co-ordinating that initiative. Members may be aware that since the initiation of the Society a considerable effort, in time and resources, has been made by the group at Maryland under the direction of the ex-President Bob Costanza. In the formative stages of the Society a certain amount of centralisation of power was deemed acceptable and desirable in order to make quick progress. However, within six years the Society had expanded well beyond the initial North American focus and many ISEE members recognised the different requirements of an internationally based society growing through regional chapters. Formal establishment of a participatory approach to the management of both our Society and its flagship journal *Ecological Economics* became an increasing concern and was the reason for the President's request.

Discussions over reform were held via e-mail between members of the ISEE Board, the ANZSEE president, ISEE President and ESEE executive. The essential need was identified as avoiding excessive accumulation of tasks in any one person. Reforms were seen as necessary to allow individuals to fulfil their jobs to their best ability while preventing over concentration of authority. The key methods put forward for achieving this were seen as limiting tenure for all Society Officers and Board posts, and exclusion from holding multiple posts. Existing arrangements within ISEE, which may have seemed adequate for the foundation phase of the Society, were found lacking upon a cursory inspection of the By-Laws.

The type of questions ESEE posed to the International Society were: how to separate the International Presidency from regional interests, what was the role of the unelected ISEE Board, how was the editor and publisher of any affiliated journal to be held accountable to the Society, how were publications and publicity to serve the interests of all members?

### 2. The Case for Reform

The membership of posts and structure of ISEE given in this section are as of the start of the discussions for reform and changes are noted later.

#### *By-Laws*

The basic structure of the Society was to be found in the By-Laws adopted in 1990 which are summarised below (the full version can be found in the membership directory). These By-Laws could be changed by the Board "subject to approval by the membership". In addition, the Society was incorporated as a non-profit organisation in Louisiana, USA. The Society had and continues to have a five year contract with Elsevier for the journal *Ecological Economics* (although the current contract relinquishes all control to the Editor). These By-Laws were deemed inadequate, for example, allowing one person to simultaneously be ISEE President, President-elect, Vice President, Secretary, Treasurer, Chair of the Board of Directors, editor of the journal and to hold similar posts in any regional branches. Other aspects of the ISEE structure were as follows:

#### *Board of Directors*

- Membership and appointment process unspecified
- All members were appointed by the ex-President
- Membership Costanza, Daly, Peet, Jansson and Martinez-Alier
- Nominated officers of the International Society but should have made a general call for "suggestions"; this failed to occur at the last election.
- May remove Officers of the International Society
- May appoint Officers of the International Society to fill vacant posts

- Was the only control over the ISEE President

#### *Officers of the International Society*

- President, President-elect, Vice Presidents (max. 3), Secretary, and Treasurer.
- Norgaard (President & President-elect), Hanna (Vice President), Folke (Secretary & Treasurer).
- President and Vice Presidents were stated in the By-Laws to be mutually exclusive roles (Article II Section 1), but this statement was later contradicted because the two offices could be held by the same person as long as they did not "execute, acknowledge or verify any instrument in more than one capacity." (Article II Section 10 Second paragraph).
- Tenure 2 years, but "Officers could succeed themselves indefinitely".
- ISEE President had authority to make independent appointments and contracts on behalf of the Society; subject only to control by the Board of Directors.

These By-Laws were self contradictory, allowing one person to hold several posts simultaneously, and provided no procedure for the appointment of the Board which was supposed to exercise control over Officers. If we wanted a democratic Society, regardless of who holds a collection of key posts, or how well they do the individual jobs, this accumulation of power was obviously a problem. Most members would agree this was an unacceptable procedural basis for running a regionally based international organisation.

### 3. The ESEE Guidelines for the Reconstitution of the International Society

Below are several suggestions put forward by ESEE as to how we might begin to change the Society by formal adoption of new rules and regulations. These ideas were formally discussed by the Board in Chile last year along with reform proposals from ANZSEE and a synthesis from Dick Norgaard, Present. At that meeting were representatives from the following regional chapters and branches: Australia/New Zealand, Canada, Europe, India, and Russia.

ESEE proposed that the general aim of the reforms should be to achieve:

- (i) limited tenure for the President and any Vice-Presidents;
- (ii) similar limited tenure to apply to all regional branches;
- (iii) an Executive Council of fairly elected regional representatives be established and composed of
  - (a) the President and one Vice-President from each regional chapter
  - (b) the ISEE president and one of the three proposed ISEE Vice Presidents
  - (c) the ISEE Secretary and the ISEE Treasurer;
- (iv) an open process of nominating Officers of the ISEE from fully paid members;
- (v) an open process of electing Officers of ISEE from those nominated;
- (vi) restriction of the number of posts which could be simultaneously held by any one person.

A *Regional Executive Council* was seen as key by ESEE to making the Society truly international. Replacement of the unelected Board of Directors by an Executive Council of regional representatives with each person elected by a recognised fair procedure.

*Regional Branches* must have an open election process which is legally enshrined in published Statutes. Anybody who has support of the branch membership should be able to stand for election. Regional branches incorporated in different countries may have different procedural rules for election of their Officers. However, a set of general democratic rules should be laid down by ISEE, e.g. procedures for elections by branch members, limited tenure of posts.

# Opinion

*Election Procedure.* Any nomination process must be open and published well in advance of elections. Newsletters and the Internet should be used for this purposes. The actual election of Officers must allow plenty of time for response when held by mail ballot and if held at a general meeting must allow for proxy voting. The voting procedure must be fair and clear.

*A United States of American Branch* of the society should be established as a distinct section. The operation of ISEE must then be formally distinguished from this regional branch.

*Tenure.* All limits on tenure should be retrospective i.e. past periods of service must be taken into account when considering whether an individual has already served the maximum allowable period in any office. Time limits suggested by ESEE are an even number of years allowing review procedures to coincide with the bi-annual international conference.

*The President* of the International Society should be excluded from simultaneously holding any regional Presidency or Vice Presidency. The office should be held for 4 years with only one reappointment possible.

*President-elect and Vice Presidents.* The post of President-elect should be abolished as merely confusing the election process and causing unnecessary delays in the transition after elections. Vice Presidents terms of office should be limited to 4 years with one reappointment. All three Vice-Presidential posts should be tilled and might be used to reflect geographical diversity.

*Treasurer and Secretary* As these posts require specific skills and close work with the President and Vice President(s), the positions should be appointed rather than elected and for practical purposes the individuals would need to be located near the President or a Vice President. They could be appointed by the elected Officers of ISEE which might therefore be expanded beyond President and Vice President(s) to include some executive officer posts.

*Executive Officers.* The creation of some new posts would recognise the work being done by other members of the Society besides the President and Vice President. As elected posts these positions would allow the potential for over concentration of power to be avoided if this were of concern to the membership. For example these might be based upon the current ISEE Committee Chairs namely: Education & Curriculum Development. Publications. Public Policy Development. International Affairs & Regional Chapters.

#### 4. The Society's Journals

Management of a journal on a daily basis is the editorial teams job but there must be formal mechanisms of accountability to the Society (both international and regional) if the content is to reflect the aims of the Society. There should also be a forum for airing members concerns and addressing complaints.

*The Editor.* A healthy journal is one where the editor has a limited lease of life, and a maximum tenure of 8 years would seem suitable. The tenure must be long enough for the Editor to get a grip on running the journal and to make some changes i.e. for the Editor to make their mark. If they are effective this will take a minimum of about 3 years.

*The Editor* needs to be appointed by the elected Officers of the Executive Council. The Editor should be excluded from simultaneously holding any post as an Officer of the Society or its Executive Council (Board of Directors) or similar posts in any regional branches.

*Associate Editors* (max. 4) and *Reviews Editor* must be approved by the Executive Council. Terms should be 4 years with a maximum of two terms allowed i.e.. one reappointment possible. The Associate Editors and Reviews Editor should be excluded from simultaneously holding any post as an Officer of the Society or its

Executive Council (Board of Directors) but may hold similar posts in a regional branch.

*The Editorial Board* should consist of long standing members of the Society with exceptions limited to special cases (e.g.. Editors of complementary journals). Membership should be reviewed in light of obvious failure to contribute to running the journal or disagreement with the aims of the Society. People should be appointed to the board for 4 years only, but no limit on reappointment. Any review process needs to be carried out by the fairly elected Officers of the International Society and the Editor. Approval of such changes should be sought from the Executive Council which may also direct that changes be enforced.

#### 5. Achieving Change and What has been Happening

Although there was talk of an open debate among the membership and publication of reform proposals in the Bulletin last year, this failed to occur. However, at the biennial conference, in Santiago, Chile, some changes were agreed at the General Meeting by the membership present. These included:

- the establishment of a United States Society for Ecological Economics (USSEE)
- reconsideration of reform of the constitution. The President to circulate a new draft to ESEE, ANZSEE and Canadian representatives as a working group. A draft then to proceed to US lawyers.
- resignation of the Board upon transition to new structures
- moving the ISEE secretariat

ESEE recommended a mail ballot of the membership after a set of reform proposals were agreed.

Changes that have been and are taking place are as follows:

1. Discontinuation of the Bulletin as proving too expensive (as discussed in the ESEE Newsletter No, 7 by the President)
2. Transfer of the Secretariat in May to a professional service provider
3. Re-establishment of the web site at <http://isee.aibs.org> (a new- URL to be put in place in the near future and redesign of web pages to follow)
4. The inauguration (June 1999) of the United States Society for Ecological Economics (USSEE).
5. In June 1999 a draft of the new Constitution and By-Laws was circulated (to a much wider group than discussed in Chile) for consultation. This draft had already been approved by the existing Board. The President intending an open vote of the membership to follow upon agreement by regional representatives as to suitability of the draft.

Earlier this year Bob Costanza resigned from the Board. Susan Hanna resigned as Vice-President and Carl Folke resigned as Secretary/Treasurer.

#### 6. Post-script

This process of change and the energy required for rearranging the administration of the International Society may seem a large distraction from more worthwhile and environmentally relevant pursuits (I certainly feel this at times). However, in order for the Society to be an effective means of co-ordinating and representing the ideas of the ecological economics community, the membership must be able to easily voice their opinions with the expectation of a fair hearing. The structure of the Society should reflect our ideology and this means a participatory and open process for the expression of ideas addressing our environmental, social and ethical concerns.

I hope the efforts of Dick Norgaard in pursuing reform and listening to the regional societies will be appreciated by members. You should have recently been able to vote on whether to accept a new Constitution and By-Laws. While far from meeting all the points put forward by ESEE and other regional societies, those of us around the globe who have been working on this reform hope the result will be a more open, inclusionary and professional basis for the future development of the International Society.+

### HELIO International, in cooperation with the Climate Action Network is organising a side event at COP5 on CDM Criteria and Indicators

COP5 in Bonn will focus on the setting-up and functioning of flexibility mechanisms for reduction of green house gas emissions. Among these tools, the Clean Development Mechanism (CDM) offers some interesting possibilities for all concerned, provided that some specific criteria are agreed upon.

Environmental organizations associated with the Climate Action Network are very keen to see these criteria clearly outlined by negotiators. They are presently working with HELIO International to select appropriate indicators for the identification and certification of such projects. In this connection, these environmental organizations and HELIO are organising a major CDM side event on the evening of October 26<sup>th</sup> in Bonn, featuring a panel of

distinguished delegates and observers to the climate negotiations. This meeting will be a forum that helps bring about a CDM that truly diminishes emissions of greenhouse gases while at the same time providing genuine contributions to the sustainable and equitable development of recipient countries.

All ESEE members present in Bonn on October 26<sup>th</sup> are more than welcome to take part in this event.

For further information, please contact *Hélène Connor* at HELIO INTERNATIONAL, *Observatoire mondial, la viabilité énergétique, Global Sustainable Energy Observatory, 56, rue de Passy, 75016 PARIS, France, Tel: ++33 1 42 24 51 48, Fax: ++33 1 42 24 86 33, E-mail: helio@globenet.org, Website: <http://www.globenet.org/helio>.*

### Workshop on Climate Change and Clean Development Mechanism implementation in Southern Countries

The C3ED (Centre d'Economie et d'Ethique pour l'Environnement et le Développement, France), in collaboration with the Tunisia Center University, the members of the Climate Change Working Group of the European Consultative Forum on the Environment and Sustainable Development, and the European Network on Sustainable Development, organises a workshop on Climate Change and its implications for the countries of the South through the implementation of Clean Development Mechanisms.

The workshop will take place on the 23<sup>rd</sup> to 25<sup>th</sup> of February 2000 at the Abbaye des Vaux de Cernay in France, and will unite

researchers, political, industrial, and environmental protection associations, with a strong mobilization of the countries of the South. The objectives of this workshop are to provide the participants with specific information on the various instruments discussed in Kyoto and Buenos Aires; to identify the possibilities of CDM implementation in the Southern countries; to discuss the eligibility criteria of CDM projects; to improve policy expertise to fight against climate change.

For further information, please contact *Christelle Hue* at the C3ED, E-mail: [reseau.GESD@c3ed.uvsq.fr](mailto:reseau.GESD@c3ed.uvsq.fr)

### Conference on Industrial Ecology in France

By *Julia Haake, C3ED, France*

On September 22<sup>nd</sup> to 25<sup>th</sup> 1999, the Université de Technologie de Troyes in France, hosted a large international conference on Industrial Ecology and Sustainability, which brought together a variety of researchers, business spokespersons, and representatives from public institutions and NGOs, as well as people from the interested public. The diverse program not only introduced the concept of industrial ecology to newcomers, but also allowed experts to discuss in detail their different fields of interest in the area of industrial ecology. Among the keynote speakers were the pioneer of industrial ecology Bob Ayres, experts in the history of industrial metabolism like Marina Fischer-Kowalski or in material flow analysis like Stefan Brinzeu, the eco-efficient services requester Walter Stahel, Thomas Graedel as a representative from the American industrial ecology community and many others... Several speeches introduced business efforts to integrate industrial ecology into their activities, like those of IBM, Elf, ABB, Renault, EDF or Saint Gobain (some of these were however a bit

disappointing and had little in common with the move towards industrial ecosystems as proposed by industrial ecology..).

On two afternoons, parallel sessions allowed the presentation of numerous papers on a wide range of subjects: from the implementation of eco-efficiency in industry to epistemological and philosophical questions, from eco-efficient products and services to material flow assessment and life cycle analysis, from eco-industrial parks to industrial ecology in university teaching.

The most important message of this conference might have been that industrial ecology is not only more and more accepted as a means of approaching sustainable development, but that this kind of international and European cooperation keeps in motion the progress towards an authentic scientific community. Transforming today's industrial system into one that resembles the basic functioning of nature requires accumulating the existing forces of different disciplines, all countries around the world, and all societal actors.

For more information on this conference contact: *Nicole Steib* ([Nicole.Steib@univ-troyes.fr](mailto:Nicole.Steib@univ-troyes.fr))

## Ongoing Research

**Project information: "The Impact of Clean Production on Employment in Europe: An Analysis Using Surveys and Case Studies (IMPRESS)"** (TSER Programme, Contract SOE-1-CT-98-1106, Starting Date: November 1998. Duration 24 months)

The primary objective of the IMPRESS project is to establish a Europe-wide methodological framework for analysing the impact of clean production on employment. In addition, the project will produce empirical results on impacts of cleaner production on employment through own research. This consists of: the examination of the relationship between eco-innovation, employment and competitiveness based on an analysis of European innovation data banks, in-depth case studies

conducted within selected industrial and service sectors, customised surveys on eco-innovation, comparative analysis of the survey and the case study results.

An internet discussion group on the topic of clean technology and employment has been installed (<http://www.impress.zew.de>). Contributions to the discussion are welcome.

The principal deliverables of IMPRESS will take the form of publications in books, journals, newspapers and magazines aimed at European researchers, policy makers and industrialists. Two workshops, one dealing with methodology and the other with policy aspects and results, will be organised.

Co-ordinator: Zentrum für Europäische Wirtschaftsforschung (ZEW), Germany, Dr Klaus Rennings; Partners: Fondazione Eni

# Ongoing Research

Enrico Mattei (FEEM). Italy, Matteo Bartolomeo, Maastricht Economic Research Institute on Innovation and Technology (MERIT), Netherlands, Anthony Arundel, Victoria University of Manchester, United Kingdom, Prof Ian Miles.

## From Irreversibility to Consultation. The Evolution of National Foresight Practices to Control Collective Environmental Risks

Research financed by the "Risques Collectifs et Situations de Crise" program (CNRS, France), co-ordinator: Olivier Petit (C3ED, France)

The introduction of foresights in scientific and technological policies can be considered as a political innovation. It consists of extending collective expertise and expert integration procedures of new consultative procedures to the implementation of national technological foresights systems aiming at a reduction in environmental collective risks. This development can be qualified as "consultative foresight".

In this context, our goal is to carry out a critical comparative analysis of concrete cases of national environmental foresight programs, recognized and financed by European (NL, D, UK, F, DK), American and Japanese governments since the beginning of the 1990s.

The framework of this project will be divided into two levels of analysis: (1) the methods applied and (2) the treatment (or not) of the form of cooperation used in the considered foresight methods.

For further information contact Olivier Petit at the C3ED: [Olivier.Petit@3ed.uvsq.fr](mailto:Olivier.Petit@3ed.uvsq.fr).

## Work + Ecology. A transdisciplinary project initiated by the Hans Böckler Foundation, Germany

As in other countries, the idea of sustainable development has gained broad acceptance in Germany. But so far, no consensus has been reached between the relevant social groups as regarding the operationalisation of the idea.

The 1996 "Sustainable Germany" study by the Wuppertal Institute has initiated an intensive and controversial debate on sustainability concepts and strategies. The frame of reference for the sustainability concepts currently under discussion is still the ecological "carrying capacity" of our world system and the reduction targets derived from it; in other words a framework of environmental benchmarks is set within which sustainable development is to take place.

Attention also must be paid on the other hand to social and work-related dimensions of sustainability, although it is precisely in this area that many trends are clearly unsustainable. One needs only to think of the high and increasingly entrenched rate of underemployment and the urgent structural problems on the labour market, or the inadequacies of the education and training system.

In order to provide the German trade unions with a well-founded basis for the strategy-development process, the Hans Böckler Foundation has initiated a transdisciplinary research project entitled "Work + Ecology" to study the implications of the various sustainability concepts for the social sphere and the world of labour.

### Project organisation

In order to perform the above mentioned tasks, intensive cooperation of research institutions and economic, social-policy and ecological competence is required. It is for this reason that the German Institute for Economic Research (DIW), the Wuppertal Institute (WI) and the Social Science Research Center Berlin (WZB) have developed an integrated concept to

apply the know-how from the various disciplines represented in these research institutions, and in order to bring together social demands for sustainable development and the strategic options of the "social-ecological reform strategy". In terms of political processes and suitable environmental policy instruments, to environmental and economic interrelationships and labour market and social dynamics, the three institutes have at their disposal the complementary specialist qualifications and know-how in the relevant disciplines - economics, ecology, and political and social science - that are vital for developing and operationalising a social-ecological reform strategy.

### Research concept

The project is planned to be accomplished in three main broadly successive working phases: (1) cross-area analyses, (2) scenario analyses, and (3) the drawing up of strategy elements. The preconditions of and scope for a broader social discourse on the implementation of a socio-environmental reform strategy are to be analysed parallel to these three stages.

The aim of the cross-area analyses is to determine and specify the various linkages and interrelationships between sustainability and work seen from an economic, social and ecological perspective. The cross-area analyses are to provide both a basis for drawing up and evaluating the scenarios and to generate findings that can help directly in formulating socio-environmental strategy elements.

Alongside the policy-field and process analyses, case studies, surveys etc. conducted within the framework of the cross-area analyses, the scenario technique is one of the central methodological approaches used in the research project. The characteristic element of scenario analyses is that a number of pictures of the future are drawn up in order, taken together, to illustrate a range of possible futures and thus the scope for policy intervention. On the basis of the goals defined in the course of setting guiding questions and of the causal relationships identified in the course of the cross-area analyses, three scenarios are drawn up, describing possible future developments, initially in a qualitative-verbal approach. With the help of suitable models, certain aspects can then be portrayed in a quantitative-numeric approach. In a final step, the scenarios are evaluated on the basis of economic, ecological and social criteria with the aim of exposing conflictual and synergetic relationships between goals as a precondition for strategy formulation.

In order to take account of the spectrum of positions held in the debate on sustainable development concepts, the research project is to develop and analyse an economic-social and an enviro-social sustainability scenario against the background of a contrasting supply-side scenario, that is based on a status quo in terms of policy approach.

In the course of the elaboration, evaluation and comparison of the scenarios according to a differentiated system of criteria consisting of integrated individual indicators covering three dimensions of sustainable development, certain elements will emerge that are characterised by a high degree of synergy between economic, environmental and social/labour related goals. In addition, the analysis of potential areas of conflict will also allow to formulate strategy elements. Finally, additional strategy elements are to be supplemented on the basis of the knowledge gained in the course of the cross-area analysis. The aim is to establish a well-founded package of strategy elements containing verifiable forecasts of their expected efficiency and compatibility and the extent to which it is possible to compensate for their negative side-effects. This bundle of measures will be placed at the disposal of trade unions and other social groups to assist them in developing a social-ecological reform-strategy.

The "Work + Ecology" research project presented here is one of the largest transdisciplinary research projects ever conducted on this topic in Germany. With all the challenges and risks this implies. Research can be considered as transdisciplinary if it goes beyond an inter-disciplinary approach - i.e. bringing together various disciplinary perspectives - and crosses disciplinary boundaries to define and solve problems independently of these. The need to conduct the project on a transdisciplinary basis relates to the elaboration of tasks, the formulation of the scenarios and their evaluation, and to the

action-oriented dialogue with trade unions and other social groups and institutions. This requires a high degree of integration of the work performed and the involvement of all three institutes in each phase of the project.

For further information contact:

Joachim Spangenberg, Wuppertal Institut

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## Diverse Publications

Handbook of Environmental and Resource Economics, by Jeroen C. J. M. Van Den Bergh (Editor)

The handbook contains several special and unique features. Five of the ten main sections cover topics that are addressed marginally or not at all in previous handbooks or other surveys. Moreover, in addition to overviews of the standard (neoclassical) approach, the book covers core elements of ecological economics in the section on interdisciplinary issues, including a separate chapter comparing neoclassical and ecological economics. The first section includes a chapter with a historical survey of environmental economics. The final section covers future areas of research from both monodisciplinary and multidisciplinary perspectives.

At a chapter level the handbook addresses, in addition to standard topics, both less common and recent topics in environmental and resource economics. These include cartels in resource extraction, trade in resources, indicators of resource scarcity, endogenous risk, policy in imperfect markets, transaction costs, the double dividend of ecotaxation, distribution issues, ethics and policy, ethics and valuation, strategic trade, endogenous locations, endogenous growth theory, environmental Kuznets curves, sustainability and sustainable development, the meaning of thermodynamics, analysis of materials flows, the relevance of ecological theory, multi-criteria analysis, computable general equilibrium models, decomposition methods, and ecological economics. Traditional topics are surveyed as well, for instance, externalities, instrument choice, nonrenewable resource extraction, fishery economics, water use, the growth debate, valuation methods and cost-benefit analysis.

**Malte Faber, John Proops, Stefan Speck with Frank Jöst: Capital and Time in Ecological Economics. Neo-Austrian Modelling, Edward, Elgar, Cheltenham, UK, 1999 (Advances in Ecological Economics, Series Editor Robert Costanza)**

This groundbreaking book focuses on neo-Austrian capital theory and its application to the modelling of long-run economy-environment interactions.

The book begins by presenting an overview of the modelling approach and offers an historical survey of capital theory and its development. The authors then provide a detailed introduction to the neo-Austrian modelling technique and extend it to include time horizons and growth models. The model is then applied to environmental issues such as green national accounts, resource rents and climate change to show how the

neo-Austrian approach gives fresh and illuminating insights. An empirical application to the iron and steel industry is also presented.

*Capital and Time in Ecological Economics* will be of interest to ecological and environmental economists, economic capital theorists and all those following developments in the neo-Austrian approach to economics.

**I. Ring, Klauer, B., Wätzold, F., Månsson, B.A. (eds.): Regional Sustainability. Applied Ecological Economics Bridging the Gap between Natural and Social Sciences, Springer / Physica Verlag, 1999**

This book presents interdisciplinary approaches towards achieving regional sustainability. The relevance of interdisciplinary research and its consequences for economic research into the environment are elaborated, and new approaches are developed to integrate knowledge from ecological and social sciences into economic research. "Regional Economics" includes the development of theoretical concepts as well as applied regional case studies relating to nature conservation and agricultural policies, coastal management and air pollution problems. Centered around the themes of decision making processes, modelling as support for policy analysis and the evaluation of policies, it successfully addresses problems facing researchers and policy-makers in the context of regional sustainable development. The book pays special attention to human behaviour and stakeholders in the decision making process, and contributes to the transition from ecological economics to socio-ecological economics.

**Comparison of macroeconomic models to assess the effects of environmental policies - German study published**

*By Ursula Lauber, Statistisches Bundesamt, Germany*

The methodological work accomplished by the German Federal Statistical Office to construct a system of environmental-economic accounts has right from the beginning been assisted by an advisory board commissioned by the Federal Ministry for the Environment, including scientists of various disciplines and representatives of different social groupings. In 1997/1998, the advisory board on environmental-economic accounting dealt with possible ways of using selected econometric models available in the Federal Republic of Germany for approaching environmental-economic issues. In view of the complex nature of this task, the board commissioned a working group headed by Prof. Dr. Joachim Frohn of Bielefeld University with an examination of related questions. The final report of the





The existence of a considerable amount of scientific uncertainty, with respect to the functioning of environmental, social and economic systems (and with respect to their interaction), is taken as the starting point for the prospective analysis in Part IV of the Report. Due to this uncertainty, risks regarding future developments of these systems is perceived in different ways within society, depending on a number of factors such as how high, or low one considers the resilience of the environment, the capacity of society to adapt to changes, the capacity to provide well timed adequate technological solutions, and so on. A long term prospective analysis should take these attitudes into account and show their impact on important indicators in the long term. However, the required elements for long term prospective analysis are mostly lacking in Belgium. Nevertheless, the Report briefly outlines three scenarios that each use different risk perceptions within the environmental, social and economic fields. This approach is a useful input to the debate within society as a whole on possible future courses of action. Views and actions of the major groups (such as non-governmental organisations, local authorities, business and industry, workers and their trade unions) are also reported in Part V. A summary is given covering the advice of the federal advisory councils including these groups and whose mandate includes issues selected in this Report: the Federal Council for Sustainable Development, the National Labour Council, the Central Council for Economy and the Council for Consumption. An analysis of the situation in Belgium in this regard also reveals a lack of integration at this level.

Finally, Part VI offers an answer to the question raised in the title of the Report. The decision making during the period 1992-98, related to the sustainable development issues selected in the Report, appears to have been insufficient in meeting the five criteria outlined in Part I (not withstanding the achievements made in the conceptual and institutional fields).

This publication is available in French and in Dutch. Summaries in Dutch and French are available on the website of the Federal Planning Bureau (<http://www.plan.be>). From August onwards, the full Report will be obtainable. And an English version of the summary will soon be available. Copies of the report are also available for \$12.50. For more information, please contact Sylvie Varlez, Federal Planning Bureau – Task Force Développement durable, 47-49, avenue des Arts, 1000 Bruxelles Belgique. Tel: 00 32 2 507 74 77. Fax: 00 32 2 507 74 86, c-mail:sv@plan.be

A project on a world scale: sustainable development  
This Planning Paper provides synthetic and recent information on the evolution and current state of implementation of sustainable development on a world scale, along the lines set out in "Agenda 21".

As this Earth agreement towards improved living standards for all in the 21st century is still widely unknown, part I of the paper recalls why and how it was adopted in Rio, June 1992, by the world's community, after years of difficult negotiations. The paper describes progress and failures met since Rio in the implementation of the agreement. Part II summarises the context and conclusions of the official review of progress achieved that was made in June 1997 by political representatives of the international community. It acknowledges a number of positive results but also deep concerns on the

overall trends regarding sustainable development. These trends are worse today than in 1992. The last six years have been characterised by accelerated globalisation of inter-actions among countries, which present new opportunities and challenges. However, only some developing countries were able to take advantage of these trends.

Part III stresses that the world's population growth rate has fallen more swiftly than demographers expected. However, these demographic changes are not sufficient yet to overcome the complexity of the poverty issue and the increase in the number of people living in absolute poverty. Huge difficulties remain for developing countries in meeting basic needs, such as adequate food provision, health care, and shelter, while unsustainable patterns of production and consumption, particularly in the industrialised countries, continue to aggravate the threat to the environment. Part IV shows how much the global environment has continued to deteriorate and to what extent significant environment problems remain embedded in socio-economic evolution. Nevertheless, major groups (such as non-governmental organisations, local authorities, business and industries, workers and their trade unions) have demonstrated what can be achieved by reflecting grassroots concerns and building consensus. Committed actions taken by the major groups and obstacles met are described in Part V. Part VI addresses the means of implementation of Agenda 21, both from the public and private sector. The present downward trends in the rate of Official Development Assistance to GNP cause concern, particularly for the least developed countries. However, policies and measures should also be taken to reduce the present volatility of private investment flows to developing countries and to promote long-term investment flows, which contribute to sustainable development. This part also reviews the observed and committed development of other means of implementation, such as the transfer of environmentally sound technology, the science for sustainable development, the promotion of education, the raising and training of public awareness.

The last part of this paper considers the efforts needed to design strategies that take up the challenge of sustainable development. It starts with illustrating these efforts by the various aspects of the Kyoto Protocol implementation (see Special Topic) and ends by addressing the issue of sustainable development policymaking, pointing out the Belgian Law on the Coordination of the Federal Policy on Sustainable Development (May 5th 1997).

"Développement durable: un projet à l'échelle mondiale".

([http://www.plan.be/fr/pub/pp/detail\\_pp.stm?pub=PP085](http://www.plan.be/fr/pub/pp/detail_pp.stm?pub=PP085))

"Duurzame ontwikkeling: een project op wereldschaal".

([http://www.plan.be/fr/pub/pp/detail\\_pp.stm?pub=PP085](http://www.plan.be/fr/pub/pp/detail_pp.stm?pub=PP085))

Nadine Gouzée, Natacha Zuinen, Stéphane Willems, Planning Paper 85, February 1999.

This publication is available in French and in Dutch on the website of the Federal Planning Bureau (<http://www.plan.be>). Copies of the report are also available for \$ 12.50. For more information, please contact Sylvie Varlez, Federal Planning Bureau – Task Force Développement durable, 47-49, avenue des Arts, 1000 Bruxelles Belgique. Tel: 00 32 2 507 74 77. Fax: 00 32 2 507 74 86. e-mail:sv@plan.be



# Diverse Publications



**Eric Neumayer: Weak versus Strong Sustainability - Exploring the Limits of Two Opposing Paradigms, August 1999, Edward Elgar**

In the debate about sustainable development, the key question is whether natural capital can be substituted by man-made capital. Proponents of weak sustainability maintain that man-made and natural capital are substitutable in the long term whilst followers of strong sustainability believe they are not. The book explores the limits of the two paradigms of the two paradigms of sustainability in an accessible way. It argues that while neither paradigm is universally correct, a persuasive case can be made for the non-substitutability of certain forms of natural capital. The author also examines whether future generations can be compensated for long-term environmental pollution. He assesses whether sustainability can be measured and concludes that attempts to measure sustainability monetarily have to be treated with caution. Finally, he shows that the pessimistic conclusions of the World Bank study on the weak sustainability of many developing countries can be reversed if a more plausible method for resource accounting is used.

**“Conception de produits et environnement: 90 exemples d’eco-conception/ Products Design and Environment: 90 examples of eco-design”, ADEME Editions, May 1999**

Taking environmental considerations into account at the design stage of a product or service offers great opportunities for minimizing environmental impacts. Covering 90 examples, this work aims to illustrate the eco-design concept and promote its increased integration in the world of business. It shows the different forms eco-design takes, by way of real case studies from a wide field of activities in France and abroad. Targeted users are industry, consulting bodies, laboratories and research bodies, administrations.

This French / English bilingual guide (112 pages) is available at the price of 180 FF (27 Euro). Contact: ADEME Editions, Régisseur de recettes, 2 square La Fayette, BP 406 - 49004 Angers Cedex 01 - France (Ref. 3316).

The **proceedings of the November 98 Conaccount workshop** are now available on the Internet! All those interested in material flow analysis, dematerialisation, societal and industrial metabolism, industrial ecology and eco-efficiency.. should visit the following website:

<http://www.leidenuniv.nl/interfac/cml/conaccount/>.

The study **“From Vienna to Helsinki - The process of integration of environmental concerns in all policies of the European Union”** is available on the Internet in German and

English. The study has been commissioned by the Austrian Federal Ministry for Environment, Youth and Family and is part of the European Policy Papers of the Wuppertal Institute for Climate, Environment and Energy. All European ecological economists are potential readers of this study! You can download your copy under the following internet address: [http://www.wupperinst.org/Publikationen/EU-Policy-Papers/index\\_e.html](http://www.wupperinst.org/Publikationen/EU-Policy-Papers/index_e.html).

The fourth issue of **Terrain: A Journal of the Built & Natural Environments**, in partnership with Terra Nova: Nature & Culture, is now online at <http://www.terrain.org/>. This issue's theme is “The Suburban Frontier”.

**Axel Michaelowa, Michael Dutschke: Economic and Political Aspects of Baselines in the CDM Context**, in: Jose Goldemberg, Walter Reid (eds.): Promoting development while limiting greenhouse gas emissions: trends & baselines. New York 1999. p.115-134

**Axel and Katharina Michaelowa, Scott Vaughan: Joint Implementation and trade policy**, in: Aussenwirtschaft, 4, 1998

**Axel Michaelowa, Marcus Stronzik: Early crediting of emission rights - a panacea or Pandora's box?**, HWWA Discussion Paper No. 73, Hamburg, February 1999

For further information contact Axel & Katja Michaelowa: [michaelo@easynet.fr](mailto:michaelo@easynet.fr).

**Greener Management International, Issue 24: special theme issue Business-NGO Relations and Sustainable Development**

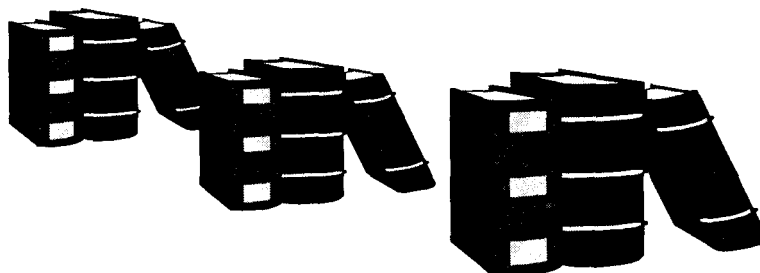
In this specially extended issue of ‘Greener Management International’ edited by Jem Bendell (University of Bristol, UK), writers from NGOs, businesses, consultancy and academia consider the problems associated with partnerships between businesses and NGOs and how such relationships can be made to work in practice.

To order, please contact Samantha Self, Greenleaf Publishing Ltd, Aizlewood Business Centre, Aizlewood's Mill, Nursery Street, Sheffield S3 8GG UK, Tel: +44 114 2823475. Fax: +44 114 2823476, or visit the following website:

<http://www.greenleaf-publishing.com>.

The articles contained in this issue will be discussed by an internet discussion group on business-NGO relations and responsible enterprise. If you want to contribute to feedback on the articles, visit this website:

<http://www.mailbase.ac.uk/lists/business-ngo-relations>.

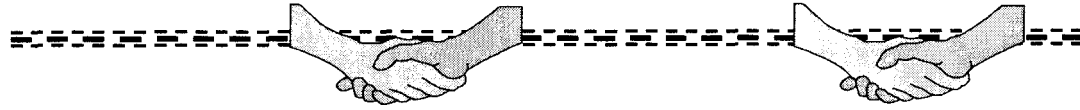


# Ecological Economic Teaching and Courses

## International off-campus Ph.D. program in Cleaner Production, Industrial Ecology and Sustainability

For more information on this program designed for people currently employed in a full time position and who wish to pursue their Ph.D. while continuing their employment, contact Trude Groot or Leo Baas at Rotterdam Erasmus University: [deGroot@fsw.eur.nl](mailto:deGroot@fsw.eur.nl) / [baas@fsw.eur.nl](mailto:baas@fsw.eur.nl).

## Contacts



**Pascal Delisle** now works at Georgetown University, USA and teaches a course on ecological economics, called "Environment, Growth and Development" as Sciences Po visiting Professor. He can be contacted at: Georgetown University, Center for German and European Studies, ICC 501, 37th & O streets, NW Washington DC 20057, Tel: 202-687-8902, Fax: 202-687-8359, Email: [pd@gunet.georgetown.edu](mailto:pd@gunet.georgetown.edu)

## Websites

The secretariat of the **United Nations Framework Convention on Climate Change (UNFCCC)** has been on the World Wide Web since 1995. This new "third generation" website, <http://www.unfccc.de>, updates and consolidates information from the previous sites and adds several new features and resources. Information on the site is now more streamlined making it easier and quicker to locate information. Moreover, the secretariat has upgraded its Internet connection from 128Kbs to 2Mbs in order to handle the 1,000,000-plus hits it receives each month.

## Jobs

### University Lectureships in Environmental/Ecological Economics and in Rural Economics in the Department of Land Economy, University of Cambridge

For more information, please contact Dr John McCombie, Secretary to the Appointments Committee, Department of Land Economy, University of Cambridge, 19 Silver Street, Cambridge CB3 9EP (tel. +44(0)1223 337160. fax +44(0)1223 337132. e-mail: [jism2@cam.ac.uk](mailto:jism2@cam.ac.uk)). Further information can also be found on the Department-s website at <http://www.landecon.cam.ac.uk/>

### Ecologist

Applications are invited for this key post with the Broads Authority which is internationally renowned for its innovative conservation and restoration work. The Authority seeks an ecologist with wide experience in research for conservation management and information technology, and excellent communication skills. Responsibilities include ecological surveying, biodiversity action planning, database and GIS

management and development, and environmental impact assessment. Further details and application form. send large (A5) s.a.e. to: Chief Executive, Broads Authority, 18 Colegate, Norwich NR3 1BQ.

### Postdoctoral position in Conservation Biology - Universities of Cambridge and Copenhagen

A postdoctoral research assistant is required for two years from 1<sup>st</sup> of January 2000, to work with Dr Carsten Rahbek. Dr Andrew Balmford, Dr Neil Burgess and Dr Paul Williams on a collaborative project identifying Africa-wide priorities for conservation using distributional data on sub-Saharan vertebrates. The successful candidate will work alongside another postdoc.. Dr Tom Brooks, and will split his / her time between Copenhagen and Cambridge. with short visits to Washington and Africa. Further details: Dr Andrew Balmford - email: [apb12@hermes.cam.ac.uk](mailto:apb12@hermes.cam.ac.uk) ✧



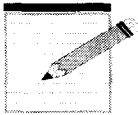
## Forthcoming Conferences and Workshops

### 10th Symposium on the Environment: "Nature and Economics", Thursday, November 18, 1999: 9.00-17.00 o'clock University of Mainz, Germany

Much of the perceived deficit in environmental policy can be attributed to a too narrow interpretation of "nature" or "the environment" in standard economic and political discussion. But what are the defects of economic understanding of natural processes? The symposium tries to address some of the most important issues by discussing natural system dynamics (Prof. Dr. A. Seitz, University of Mainz), conflicts between nature and the economy from a natural science point of view

(Dr. J. Scheffran, IANUS, Technical University of Darmstadt), the cost of not-preserving biodiversity (Prof. Dr. B. Schmid, University of Zürich), and the interpretation of nature in economics (Dr. M. Held, Evangelische Akademie Tutzing).

Contact: Prof. Dr. Hermann Bartmann, Johannes Gutenberg-University Mainz, Welderweg 4, 55099 Mainz, Germany Tel.: +49-613 1-392 114, Fax: +49-6131-303827, Email: [bartmann@mail.uni-mainz.de](mailto:bartmann@mail.uni-mainz.de), Internet: <http://wiwi.uni-mainz.de/vwl/bartmann/btus.htm>



## Forthcoming Conferences and Workshops

**First biennial conference of the INDIAN SOCIETY FOR ECOLOGICAL ECONOMICS (Indian Chapter of the International Society for Ecological Economics) on "Ecological Economics for Sustainable Development", December 1999**

For more information on this first biennial conference of the Indian Society for Ecological Economics can be obtained from: Ms. Preeti Semi, Indian Society for Ecological Economics, R. No.206, Institute of Economic Growth, University Enclave, Delhi-1 10007.

**International Conference on "Transdisciplinarity: Joint Problem-Solving among Science, Technology and Society, February 27<sup>th</sup>-March 1<sup>st</sup> 2000, Zurich, Switzerland**

For further information contact by e-mail: [transdisciplinarity@snf.ch](mailto:transdisciplinarity@snf.ch) or have a look at the conference website: <http://www.snf.ch/transdisciplinarity/home/html>.

**49th Conference of the International Atlantic Economic Society, March 15<sup>th</sup> - 20<sup>th</sup>, 2000, Munich, Germany**

For further information, contact the International Atlantic Economic Society by phone at (314) 454-0100, by fax at (314) 454-9109, or by E-mail at [iaes@iaes.org](mailto:iaes@iaes.org). Additional information on the conference can be found on the IAES web page at: [http://www.iaes.org/conferences/future/munich\\_49/index.htm](http://www.iaes.org/conferences/future/munich_49/index.htm)

**March 12<sup>th</sup>-17<sup>th</sup> 2000, Xth World Water Congress, International Water Resources, Association Melbourne Australia**

The Xth World Water Congress of the International Water Resources Association takes place in Melbourne, March 12-17, 2000. Plans are well advanced for this exciting meeting focusing on water management in the 21st century. Over 400 abstracts have been received from Asia, Africa, the Middle East, Europe and the Americas, as well as Australia, covering a broad diversity of topics on both the biophysical and human aspects of water resources.

The registration brochure for the Congress has been released and a copy can be obtained from the Congress Secretariat at ICMS Pty Ltd., 84 Queensbridge Street, Southbank, Victoria, 3006. (Email: [worldwater@icms.com.au](mailto:worldwater@icms.com.au) or on line at <http://www.icms.com.au/worldwater>)

**Sustainable Energy: New Challenges for Agriculture and Implications for Land Use, Wageningen, The Netherlands, May 18<sup>th</sup> to 20<sup>th</sup> 2000**

The main objective of this conference is to bring together economists and other scientists working in the area of sustainable energy and land use modelling, in order to discuss the implications for agriculture of a transition towards a society that relies on sustainable energy. The focus of the conference will be on the economic aspects and policy issues of sustainable energy in agriculture, including the role of agriculture and forestry as a source or sink of greenhouse gases. Technical issues will also be highlighted, both in keynote presentations and parallel sessions. Deadline for paper submission is the 15<sup>th</sup> of January 2000. Further information can be found at: <http://www.sls.wau.nl/congresme>

**INES 2000 - International Conference on Global Responsibility, Challenges for Science and Engineering in the 21st Century, Stockholm, Sweden, June 14<sup>th</sup>-18<sup>th</sup>, 2000**

The conference will consist of several plenary lectures and workshops, addressing four theme areas: The culture of science and engineering and individual responsibility, Science and engineering for a finite world, Humanizing the economy in a global context, Steps towards war prevention and lasting peace.

The year 2000 offers a unique opportunity to highlight and discuss the role of science and engineering in our societies as well as the changes of direction that many of us see as necessary for a peaceful and sustainable future.

The conference is organized by INES, the International Network of Engineers and Scientists for Global Responsibility in cooperation with: The Royal Swedish Academy of Sciences (KVA), The Royal Institute of Technology in Stockholm (KTH), The Swedish Council for Planning and Coordination of Research (FRN). Read more and pre-register - on the Internet at <http://www.ines2000.org>.

**ISEE 2000, "People and Nature" July 5<sup>th</sup>-8<sup>th</sup> 2000, Canberra Australia**

Further information on the next ISEE conference can be obtained from Mike Young at [Mike.Young@adl.ciw.csiro.au](mailto:Mike.Young@adl.ciw.csiro.au) or David Stern at [dstern@cres.anu.edu.au](mailto:dstern@cres.anu.edu.au). The conference website is: <http://www.anu.edu.au/cce/isee/>

**Shaping the Sustainable Millennium- Collaborative Approaches, July 5<sup>th</sup>-7<sup>th</sup> 2000, Brisbane, Australia**

The conference will bring together innovators from industry, government, research, academia and the wider community to develop frameworks for shaping sustainability in the new millennium. The conference will focus on creating workable frameworks for sustainability through developing responsible communities and industries in the built environment. Deadline for abstracts is 30 October 1999. For further information contact: Ms. Jodie Doolan, Conference Secretariat, Faculty of Built Environment and Engineering, Queensland University of Technology, 2 George Street, GPO Box 2434, Brisbane, Queensland 4001, Australia. Phone: +61 7 3864 1764. Fax: +617 3864 1529. e-mail: [cibconference@qut.edu.au](mailto:cibconference@qut.edu.au), <http://www.olt.qut.edu.au/int/selby>

*Note that this conference takes place at the same time as ISEE 2000 in Canberra - EE members interested in Australian collaborative approaches and not able to divide themselves in two, should of course strongly consider their fidelity towards our Society... (the editor)*

**2<sup>nd</sup> Environmental Conference on Industry and Environmental Performance, EURO ENVIRONMENT 2000, to be held in Aalborg, Denmark, 18 - 20 October 2000.**

The EURO ENVIRONMENT conferences provide an interdisciplinary and stimulating European forum in which industry can interact with governments and critical stakeholders in a constructive dialogue on its environmental performance. The EURO ENVIRONMENT 2000 conference will deal with the international political environmental agenda, new political initiatives based on international agreements and decisions made by the European Union and intergovernmental organisations creating the framework for industry. We invite industry to discuss its visions, strategies and actions on environmental issues with governments and other stakeholders - three crucial and interconnected steps for industry on its way towards sustainable development.

Details on themes and abstract submission (deadline 15 February 2000) can be found in the 1st announcement on the Internet at <http://www.akkc.dk/environment>. For further information please contact the EURO ENVIRONMENT 2000 secretariat at: Aalborg Congress & Culture Centre Mrs. Else Herfört or Mr. Steffen L. Thomsen EURO ENVIRONMENT secretariat P.O.Box 149 DK-9100 Aalborg Phone: +45 99 35 55 55 Fax: + 45 99 35 55 80 E-mail: [euro@akkc.dk](mailto:euro@akkc.dk)