Networks on Low Carbon Societies and Scenarios

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Background

Researchers have worked on scenarios for the transition of societies to a future with low consumptions of fossil fuels and other finite resources, at least since the 1971 "Limits to Growth" report to the Club of Rome. A few civil society organisations also started in the 1970's with scenarios for transitions to a fossil free future. In the meantime, governments and energy companies were busy with scenarios ranging from depicting massive growth of all energy use to stabilisation of fossil fuel use.

In the last decade the understanding have grown for the urgent need for a transition away from fossil fuels in a managed way, before energy and climate crisis result in much more unpleasant transitions.

This has lead to a massive increase in the development of scenarios for transitions to low-carbon societies. There are now more than 40 computer models to calculate energy scenarios ¹, and for the larger European countries are several scenarios for reducing or phasing out fossil fuel use ². To develop credible scenarios in an efficient way, developers and promoters of scenarios are increasingly cooperating in networks. This article describes some of these network, trying to characterize them and providing links to them. In addition to networks dealing entirely with scenarios is also included networking on carbon footprints and the Balaton group that builds on the experience of the developers of the "Limits to Growth".

The networks covered in this article are:

- Low Carbon Societies Network
- International Research Network for Low Carbon Societies (LCS-RNet)
- COMMEND (COMMunity for ENergy environment & Development)
- The Balaton Group
- The International Centre for Sustainable Development of Energy, Water and Environment Systems / Dubrovnik Conferences
- The Global Footprint Network
- One Planet Economy Network (OPEN)
- INFORSE Sustainable Energy Visions

¹ In the article "A Review of computer tools for analysing the integration of renewable energy into various energy systems by D. Connolly et. al in Applied Energy m issue 87, 2010" is analysed 37 computer programs. In the Low Carbon Society Network Project is used two other programs, so in total the number of programs will be above 40.

² See a list of scenarios at www.lowcarbon-societies.eu



Low Carbon Societies Network

This network is started 2009 as part of the project ENCI-LowCarb

(European Network engaging CIvil society in Low Carbon scenarios) with support from EU's 7. Framework Program for research and development (FP7).

The primary target groups are Civil Society Organisations (CSOs) and researchers working on scenarios and strategies for reducing fossil fuel use with 80% or more until 2050.

Aim

- To bring together CSOs and researchers for exchanges on scenarios and best practices for transitions to low carbon societies.
- To inform about low carbon scenarios and strategies
- To disseminate results from the ENCI Low Carbon project, including experience with macro-economic models for Germany and France, and experience with using stakeholder dialogues in development of scenarios and proposals.
- To engage researchers and CSOs in development of scenarios and strategies using stakeholder dialogues

Activities

- A web page, http://www.lowcarbon-societies.eu, with information of European low carbon scenarios, people active with scenarios, and results from the ENCI-LowCarb project.
- A database with researchers and CSO persons active in low carbon scenarios and strategies. Currently 128 persons are registered in the database. It is possible to sign up via the website.
- An interactive mailing list
- Seminars on national and European low carbon scenarios. One seminar was organised in 2009, two in 2010, and two are planned in 2011.
- A quarterly newsletter

The network is hosted by International Network for Sustainable Energy - Europe (INFORSE-Europe) with secretariat in Denmark, and the ENCI-Lowcarb network is coordinated by Climate Action Network France (RAC-F). Other project partners are German Watch, PIK – Potsdam Institute for Climate Impact Research and NRS / CIRED –Centre for international Research on Environment and Development.

The activities of the network will be financed by the ENCI-Low Carbon project until the end of September 2011.

International Research Network for Low Carbon Societies [LCS-RNet]

Global research network aiming for building "Low Carbon Societies"

International Research Network for Low Carbon Societies (LCS-RNet)

The network was officially launched 3-5 April 2009 at the High Level Forum of Low Carbon Technologies that was held under the process of the G8 Environment Ministers' Meeting. At the later G8 Environment Ministerial Meeting in Siracusa, the ministers requested the network to report back its outcomes periodically. It consists of research institutes and governmental agencies.

Aim

The network is a platform to support and encourage information sharing and voluntary cooperation among research institutions specifically in the field of LCS research. It will also facilitate the interaction between researchers and various stakeholders, and deliver their findings to policy-makers to assist science-based policy making in transition to low-carbon societies. Its activities and outcomes are independent from official views of any governments, and while policy relevant, should not be policy prescriptive.

Activities

Annual Meetings:

The first annual meeting was held in October 2009 in Bologna, Italy
The second annual meeting was held on 20-21 September 2010 in Berlin. The agenda of the
meeting covered scenarios and roadmaps, green growth for developed and developing countries
and issues of cities.

- A dialogue between policy-makers and researchers on sustainable low-carbon development and green growth was held in February 2010, in Bogor, Indonesia. As a follow-up from the dialogue in Indonesia, the network Secretariat held a stakeholder dialogue in Yokohama, Japan with participants from sectors such as business, municipalities, engineering, venture capital, developing and retailing.
- A leaflet is developed for the general public which explains about low-carbon society.
- The Secretariat has been collecting information on LCS policy-making and research to consider the global trends of LCS research.

The secretariat of the network is in Kanagawa, Japan. 15 institutes are members of the network, 5 of which in India.

Website: http://lcs-rnet.org/index.html



COMMEND

COMMunity for ENergy environment & Development

COMMEND is an international initiative designed to foster a community among energy analysts working on energy for sustainable development. It is primarily intended to respond to the needs of Southern energy analysts, but its membership is open to all.

The network builds upon previous efforts to develop a Windows-based software tool for energy planning and GHG mitigation assessment named LEAP, the Long-range Energy Alternatives Planning system. COMMEND has been designed in part to provide technical support, training, and the exchange of knowledge needed by this new worldwide community of energy analysts

Current Activities:

- Regular Regional Training Workshops for southern energy professionals that build capacity in energy-environment analysis techniques and the specific skills needed to use LEAP.
- Updates to LEAP
- The COMMEND Web Site, www.energycommunity.org which includes access to LEAP, information on other relevant software tools, and an online resource library and discussion forums designed to foster a community among COMMEND members.

There are now over 8500 registered members of the COMMEND network, of which about 30-50% are active LEAP users. Members include government agencies, academic researchers, non-profit organizations, consulting companies, energy utilities and students. In many countries LEAP is used both by energy ministries to help prepare energy balances and energy sector development plans, and by environment ministries to assist in the development of climate change mitigation assessments as part of a country's commitment to report to the Climate Convention (UNFCCC)

COMMEND (and LEAP) are developed and managed by the Stockholm Environment Institute (SEI). COMMEND. COMMEND has been funded by a variety of agencies including the Dutch Ministry of Foreign Affairs (DGIS) and the Government of Sweden.

Website: www.energycommunity.org



The Balaton Group

The International Network of Resource Information Centres, more commonly known as "The Balaton Group," is an international network of researchers and practitioners in fields related to systems and sustainability. Founded in 1982 by Dennis Meadows and Donella Meadows—co-authors of "The Limits to Growth"

Aim

To accelerate and deepen the world's general understanding of three factors that are fundamental to sustainable development:

- systems orientation
- long-term perspective
- unshakeable personal commitment to achieving positive change.

Activities

- The annual Balaton Group Meeting, in September, most years at lake Balaton in Hungary
- Collaboration among member on research projects, training courses, workshops, educational games, and computer model designs, all related to environmental conservation and sustainable development. Over 30 books, more than a hundred conferences, and uncounted computer models, training programs, planning methods, and educational games have emerged from collaboration among its members.

Members are mostly researchers, since its start over 400 have participated Group's annual meeting and ongoing dialogues and projects, about 80 each year. Main fields of interests are scenarios and strategies for sustainable development, understanding complex systems and system dynamics.

The network is managed by an administrative coordinator in New Hampshire, USA

Website: www.balatongroup.org/

Dubrovnik Conference on Sustainable Development of Energy, Water, and Environment Systems

The first Dubrovnik Conference on Sustainable Development of Energy, Water, and Environment Systems was organised in 2002. Since then, four more successful conferences have been organized in 2003, 2005, 2007 and 2009. This is the basis for the Centre (network).

Aim

The main goals of the Centre are organization of international SDEWES conference every two years and general promotion of sustainable development of energy, water and environment systems trough organization of courses, summer schools, public lectures, seminars and workshops and by providing professional opinion on important issues of sustainability.

Activities

- Organising Dubrovnik conferences every second year
- Co-organizing conferences. Examples are: 2nd Conference of the Sustainable development and climate changes, to be held in Nis, Serbia, in September 2010; 24th International Conference on Efficiency, Cost, Optimisation, Simulation and Environmental Impact of Energy Systems (ECOS2011) to be held in Novi Sad, Serbia, in July 4-7, 2011.

There are 183 personal members, mostly researchers, and a bit more than half from Europe.

The Centre has a temporary seat at the University of Zagreb.

Website: www.sustainnis.com/en/



Global Footprint Network

Based on developments of global footprints (land, carbon water) is formed a network of partners that are expanding the use of the footprint methodology.

Aim

The activities are designed to influence decision makers_at all levels of society and to create a critical mass of powerful institutions using the Footprint to put an end to ecological overshoot and get our economies back into balance.

Activities

- Ten-in-ten campaign, engaging national governments to establish the Ecological Footprint as a prominent, globally accepted metric as the GDP.
- Stewardship of the <u>National Footprint Accounts</u> to bring new levels of scientific quality and precision to the Ecological Footprint.
- The <u>Sustainable Human Development initiative</u> is defining what it really means to meet human needs while maintaining natural capital.
- Programs for <u>cities</u> and <u>businesses</u> to extend the Footprint into new domains, developing new tools and building the market for Ecological Footprinting.
- Work on international <u>Footprint Standards</u> to advance the integrity and comparability of Footprint applications worldwide.

There are 100 organisational partners in the network.214 registered users of the network's online facilities.

Headquarter in Oakland, CA, USA. Offices in Brussels, Basel, Washington DC

Website: www.footprintnetwork.org



One Planet Economy Network

The OPEN:EU project is funded by the EC and started in September 2009 and is working to develop a comprehensive and foresighted set of EU consumption indicators that can be used in an interactive policy scenario-modelling tool. The indicators, tool and Network will help facilitate greater transparency in decision making and high quality policy to transform the European Union (EU) to a One Planet Economy by 2050.

Aim

The goal of the project is to develop an academically robust "footprint family" of sustainable development indicators, place these in a scenario modelling tool for evidence-based policy, and create a new forum for the visions, knowledge and interests of different stakeholders to help transform the EU to a One Planet Economy by 2050.

It will do this by:

• Building the evidence base.

By 2012 the footprint family of indicators (ecological, carbon and water) is used by policy makers in the EU-27 to develop policy towards a One Planet Economy.

• Building the applications

By 2012 EU decision-makers are using a scenario modelling and indicator analysis tool to develop evidence-based policy for the transformation to a One Planet Economy.

• Building the capacity

By 2012 a network of decision-makers, CSO's and business leaders share and agree on solutions to the challenges of transforming to a One Planet Economy.

Activities

Webinar to introduce the project (held on 22 June 2010)

Workshop to ensure the scenarios developed as part of the OPEN:EU project and policy analysis of scenarios and indicators are relevant to potential users (held on 8th and 9th September with around 40 participants representing different stakeholders) Webinars and workshops will be held over the next year to test and develop the EUREAPA tool and to develop the narratives and scenarios produced in the first workshop. An OPE Network launch event in July 2011.

The EC FP7 Cooperation programme fosters collaborative research across Europe, and other partner countries, through projects by transnational consortia of industry and academia. The One Planet Economy Network is one such collaborative research project and is managed by a network of partners that include: Ecologic Institute, Global Footprint Network, Institute for European Environmental Policy, Norwegian University of Science and Technology, SEI, SERI, University of Twente and WWF UK.

Website: www.oneplaneteconomynetwork.org



INFORSE - Sustainable Energy Visions

Besides participating in the Low Carbon Society Network, INFORSE-Europe is involved in development of national visions together with members and other NGOs.

Aim

The aim of the development of the sustainable energy visions is to show how a transition to 100% renewable energy until 2030, 2040 or 2050 can be organised, and to build the capacity of NGOs to develop plans for such a transition and to promote it.

Activities

- Develop scenarios and visions, in 2010 work is ongoing on visions for Belarus, Bulgaria, Denmark, Estonia, Latvia, Lithuania. A member, Centre for Alternative Technology has developed and launched its own ZeroCarbonBritain in 2010. A scenario for EU-27 has also been developed.
- Organise seminars to discuss the visions, including presentations and NGO seminars, 3-4 presentations are planned for 2010 and a Baltic - Nordic NGO seminar is planned for the beginning of 2010.
- Support NGOs to present the visions, with posters, exhibitions etc.

Of the 75 members of INFORSE-Europe, 10 have been involved in the development of scenarios and visions.

Website: www.inforse.org/europe/Vision2050.htm