Panel 6.1 Changing society: Social support of LCS and transition policy

Chair: Mikiko Kainuma (NIES)
Rapporteur: David Garber (EPA)
Speakers: Paul Ekins (Univ. Collage London)
Derk Loorbach (DRIFT)
Rahul Pandey (IIM)
Bert Metz (ECF)
Ronaldo Serôa da Motta (IPEA)

Overview

The session aimed to highlight measures and strategies to implement climate policies and national plans, along with identifying barriers to such implementation. There were three principal speakers and two commentators. Derk Loorbach of Erasmus University, Rotterdam, discussed transition governance on the path of achieving a low-carbon society. Rahul Pandy of the Indian Institute of Management discussed the need to align climate change policy with both the interests of civil society and the market. Paul Ekins led the session with a discussion of the urgency with which decisions on a climate trajectory must be made.

The three main speakers were followed by two commentators whose presentations may be seen as case examples supporting the main topic. Bert Metz of the European Climate Foundation presented results from the EU exercise to build a roadmap for a 2050 low-carbon society for the EU. Ronaldo Seroa da Motta, of Brazil's Instituto de Pesquisa Econômica Aplicada (IPEA), discussed the policy situation in Brazil and highlighted the multi-modular economic model that is currently being used to estimate economic impacts of Brazilian climate change policy.

Major findings

Paul Ekins, Univ. Collage London, UK

We are facing some crucial deadlines for making decisions on policy trajectories. By 2020 the fundamental questions must be answered for the very large investments to be put in place. After 2030 it would be prohibitively costly to change the trajectory. Uncertainties do not imply inaction. As we make decisions, the uncertainties will become clearer. Choices narrow future options and uncertainties.

Social transitions are characterised by acute conflict between different groups. Although it is difficult to find total consensus among different stakeholders, we need to identify in the next few years actions that are politically feasible if we are going to be on track for the kind of carbon reduction that we want. The 80% reduction goal requires a complete decarbonisation of the electricity sector. The successful decarbonisaiton of electricity production depends on the availability and expansion of large and small scale renewables, nuclear capacity, and CCS deployment. Some of the difficult issues to address before 2020; bio-energy (how it is produced, environmental sustainability, competition between energy and food), nuclear (If we don't 'do nuclear' what are the other options?), CCS (Does CCS work?) and Smart Grid (Grid integration and the associated government mechanisms must be decided).

Economic modeling currently fails to integrate the economic damage of climate change: business-as-usual (baseline) scenarios assume a 3% GDP growth rate unaffected by climate change.

Derk Loorbach, DRIFT, The Netherlands

By transitions, we mean "non-linear systematic change in dominant culture, structures, and practices." Transitions have always been influenced by policy in terms of changing institutions, setting policy targets and creating space for system innovation, but predominantly in the later stages. In the earlier stages transitions are started by a mix of pioneers from government as well as society, science and business. These frontrunners develop a new understanding of a societal challenge and formulate new visions. The discourse that guides a transition is shaped and diffused by those who can explain new concepts in a novel way. Such 'narratives' can be actively developed in 'transition arenas,' or 'shadow networks'. It is important to find the key individuals who have the capacity to transmit new ideas into their own institutions. An example of urban transition management is the cityports area development in Rotterdam. The Cityports area is a mid-size industrial area that will be tranformedtransformed into a sustainable living environment within the next 30 years. Local actors came up with a plan for living on the water as one of the sustainability images for the future dealing with climate change, lack of space and creating new communities. The first major result, a 'floating pavilion,' has opened very recently.

In sum, the transition approach is about engaging with and empowering the transition arenas (shadow networks) and processes.

Rahul Pandey, IIM Lucknow, India

Civil society is seen as that part of society whose interests are not covered by the market or the state. These non-market agents need to play an important role in producing acceptable climate policy. Policy must align with interests of stakeholders of civil society and elsewhere.

Questions to keep in mind are; who are the civil society actors?, how can they participate in new institution design? and what is it that civil society can contribute?

Particular concern with environmental (climate change) equity." A key task is to identify synergistic interests of various civil society groups with the economy, and align climate change strategies with them."

Bert Metz, ECF, The Netherlands

In EU Roadmap 2050, a path was constructed to 80% carbon emission reductions through the method of 'back-casting,' that is, working backwards from the final goal to be able to set a timeline of deadlines for necessary events to occur.

Path to 80% emissions reduction will only be accomplished with a complete decarbonisation of the power sector and a nearly complete decarbonisation of the road transport and buildings sectors. This decarbonisation will require a decrease in overall demand for energy (accomplished through higher energy efficiency use). A very high share of renewables in the mix is possible without storage facilities and with only 10-15% backup capacity. Successful decarbonisation will also require the full integration of the European grid, requiring a large front-end investment.

Ronaldo Seroa da Motta, IPEA, Brazil

Brazil's National Policy on Climate Change (PNMC), Law 12187 29 of December 2009 calls for reductions in 2020 of 36.1-38.9% over the BAU scenario for that year. Forestry will account for 24.7%/38.9% of the reductions.

Sao Paolo has its own climate mitigation policy, requiring a 20% reduction of carbon emissions in 2020 over 2005 levels. Rio de Janeiro is currently debating a similar city-wide policy.

De Motta's economics group uses a multi-modular economic model to demonstrate the economic effects of Brazilian policy.

Research and Policy Relevant Questions to Address

- What is the feasibility, both technical and political, of further expansion of nuclear and CCS technologies? What is the feasibility of gas CCS technology deployment?
- How can the economic damage from climate change be integrated into baseline (business-as-usual) scenarios of economic models?
- How can we increase the certainty of future carbon prices, essential in tipping the balance away from coal and gas towards wind, solar, and other cleaner technologies?
- How do the novel ideas of transition arenas become transmitted to the national policy level?
- While Loorbach claims that it takes a year to develop common understanding for a transition to occur, policy makers nonetheless are often working on an even shorter time horizon. How do we reconcile long-term visions with short-term political needs?