

## **Comments of the Meeting**

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The Oxford meeting was my first time to attend an LCS-RNet Annual Meeting. I enjoyed the opportunity to be in Oxford with such comfortable autumn winds blowing, a tremendous change from Tokyo where the heat remained not unlike mid-summer. Above all, participating in the meeting was a valuable experience for me in that I could deepen my knowledge about progress underway regarding both climate change and energy policies in different countries and the role of research in supporting the policymaking process.

The past 20 years have brought rapid changes to the world economic structure. One point that has emerged is that it is difficult to incorporate the existing framework to address climate change into the current economic and political situation. Remarkable progress in UNFCCC negotiations has not come about despite high expectations. Although we emerged from the COP17 meeting in Durban in 2011 having established the Durban platform to enhance actions and the work plan for a future framework, there are still many challenges to be resolved.

Japan has been undertaking a review of its energy and environmental policies as part of its response to the accident at the Fukushima Daiichi Nuclear Power Station that occurred in the wake of the Great East Japan Earthquake in 2011. During the process of this policy review, the government provided to the public several policy options for a national debate. During the public hearings, as a government official in a position to promote research on climate change, I was surprised to discover that no small

number of people voiced skepticism about climate change, partially due to the linkage in Japanese energy-environment policy historically between emerging climate change issues and an increase in the number of nuclear power plants to reduce carbon dioxide emission.

As such, climate change actions in Japan are currently facing a difficult situation. Under such conditions, it has become more important to make policy decisions based on scientific evidence and to explain these decisions clearly to the public.

Against such a backdrop, I sense that the activities of LCS-RNet retain an important role of promoting sciencepolicy interaction and therefore need to be further developed. For example, the roles of a network like LCS-RNet are expected to enable more effective inputs to policymakers and to deliver them to the public in clear and easily understandable terms. In addition, it is also important to enhance the links between researchers and policymakers in developing countries in order to facilitate discussion of the establishment of a future framework for climate change negotiations. Therefore, we would like to enhance discussions on the future direction of the LCS-RNet meeting.

Lastly, I sincerely thank everyone who assisted in hosting the Fourth Annual Meeting, especially UKERC and DECC, and all the participants in the meeting. The Fifth Annual Meeting is scheduled to be held in Japan next year. I look forward to welcoming you to Japan at that time.

#### **History of LCS-RNet**

At their meeting in Kobe in May 2008, G8 Environment Ministers recognised the need for countries to develop their own visions towards low-carbon societies, and supported the establishment of the International Research Network for Low Carbon Societies (LCS-

RNet). In the G8 Environment Ministers Meeting (G8EMM) held in April 2009 in Siracusa, Italy, high expectations were placed on LCS-RNet, and the network was asked to report back its outcomes periodically. Currently this network is composed of 15 research institutes from seven countries.





- Scientific Research Contributing to Low Carbon Policy-making Process -

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## LCS-RNet Fourth Annual Meeting in Oxford, UK



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The Fourth Annual Meeting of the Low Carbon Societies held recently at Oxford University presented a rich discussion of contrasting national and local responses to global energy and environment dynamics. While the search for a 'one-fits-all' prescription for the low carbon transition challenge is misguided given local differences, there are still vital opportunities for cross-national learning and sharing of experiences.

For example, many counties are facing the challenge of reconciling short term market forces with long term signals for low carbon investment. Concerns about the economic implications of the low carbon transition – both sectorspecific and macroeconomic – have heightened in a context of continued austerity in developed economies. Perhaps inevitably, the policy agenda in many countries has shifted toward green growth over the short term rather than longerterm aspects of sustainable development.

Another important theme at the conference was the need to adopt a multi-dimensional view of technology assessment, spanning technology cost and performance



The 4th Annual Meeting of the LCS-RNet was held on 17-18 September, in Oxford, United Kingdom (UK), co-hosted by the UK Energy Research Centre (UKERC) and the Department of Energy and Climate Change (DECC) in cooperation with the International Research Network for Low Carbon Societies (LCS-RNet).

The main topics of the meeting included decarbonising energy supply, reducing energy demand, science-policy interaction and the low carbon transition, international co-operation and finance and low carbon transitions as a lever for sustainable development. The future of LCS-RNet was also discussed and the opinions voiced included expectations for the network and its further expansion, as well as the need to improve the network's organizational structure.

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issues but also whole lifecycle emissions and public attitudes and engagement. For example, an integrated assessment of CCS technology for different countries may suggest a markedly different role for carbon-abated fossil fuels in low carbon futures, compared to a narrower, costonly analysis.

One invaluable aspect of LCS-RNet is its ability to take researchers and policymakers away from their more immediate, local concerns to look at the wider context for their work. In Africa, as the Oxford meeting, heard, energy and environment policies are still largely driven by the development agenda. Even here, the lessons of recent rapid development are pertinent, and African states are considering the lessons from rapid development elsewhere, and the opportunities for alternative development paths and leapfrogging to avoid carbon lock-in. International learning and knowledge transfer on these issues is vital, and the LCS-RNet is a key channel for encouraging this sharing of experiences.

## Fourth Annual Meeting of LCS-RNet in Oxford



## **LCS-RNet Fourth Annual Meeting in Oxford, United Kingdom**

## Key Findings From the Meeting

The 4<sup>th</sup> Annual Meeting of the International Research Network for Low Carbon Societies (LCS-RNet) took place against the background of continuing difficult macroeconomic conditions as well as emerging responses to the Fukushima accident in Japan and elsewhere. The key challenge that defined discussions at the meeting was how to maintain momentum towards a low-carbon society (LCS) while taking full account of the current social and economic background. At the most general level, the recommended responses involve devising strategies for LCS that go with the grain of current policy concerns and developing synergies between LCS policies and those in other domains. The key findings from the meeting reflect this broad underlying response. These findings lie in five areas: technological and behavioural responses; finance and green growth; valuing carbon and the co-ordination of polices at multiple levels of governance; developing scientific evidence and the science-policy interface; and enhancing international collaboration.

# Technology development and behaviour change

The potential of technology options for an energy transition, such as carbon capture and storage (CCS), nuclear and renewables including bioenergy, wind and solar, has been examined in many countries. A key finding is that accelerated innovation, cost reduction, appropriate arrangements for risk-sharing and the enhancement of local benefits will be key factors in public acceptance and successful deployment.

Decarbonising energy supply is not sufficient in itself if ambitious climate targets are to be met. A transformation of the energy system is needed which must include effective strategies to promote energy efficiency and savings, as well as innovative approaches that integrate energy supply and demand.

Conventional energy policies have promoted energy security by focusing on sources of supply. More attention is now being paid to energy demand reduction through energy saving and energy efficiency. Progress is beginning to be made in areas such as policy design, lifestyle change and accelerated technology development. Recent behavioural research provides some evidence that people are willing and able to change the way they consume energy. The Fukushima accident has triggered both behaviour change and discussions on energy sector reform in Japan. Increased social awareness and corresponding political pressure could be a trigger for similar developments in other countries.

#### **Climate finance and green growth**

Confronted with current financial constraints, OECD countries can facilitate economic recovery through green growth policies that will also foster LCS. Green growth policies in developing countries can be used to enhance the low-carbon investments that will support economic activity associated with the growth of domestic demand.

A key challenge is to mobilise private capital to meet the up-front costs associated with capital intensive energy system transformation technologies. Policies that de-risk investment in low-carbon technologies could help to draw in funds from new sources, including from pension funds which necessarily take a long-term view. New forms of "citizens financing" (cooperatives, local banks and municipally owned utilities) can help to drive the process bottom up.



#### Coordinating national and subnational policies and the value of carbon

Establishing a value for carbon through innovative financial mechanisms such as the development of carbon budgeting systems or setting a "social value for carbon" could promote investment in low-carbon projects at both the national and local levels. Finance mobilised through specific climate-related international mechanisms such as the Global Climate Fund can also be used to support the transition toward low-carbon development pathways.

In the ideal world, there would be a global price for carbon. However, many political obstacles stand in the way. The obstacles include different perspectives on equity between north and south and competitiveness questions affecting countries in the north. New regional emissions markets could start to address the problem of carbon leakage associated with unilateral policies.

In developing and expanding cities, lessons can be learned from past mistakes. Boundaries between jurisdictions are multiple and complex and there is a need for strong networks for exchanging resources and transferring knowledge and technologies. The integration of cities within regional markets is important for the development of new business opportunities.

# Science-policy interaction for the low-carbon transition

Scientific evidence has contributed to the policymaking process and underpinned LCS policies in a number of countries. By exchanging knowledge and science-intopolicy success stories, lessons can be learned which take account of national specificities in terms of norms, perceptions, history, and institutional arrangements.

The Fukushima accident highlights the importance of reviewing technology costs and rigorously identifying and managing risks. The promotion of evidence-based understanding will clarify the way in which risks can be managed and mitigated.

#### International collaboration to enhance low-carbon activities

Many developing countries are making progress through the initiation of planning, implementation and assessment mechanisms for climate and energy policymaking, urban planning processes and the establishment of policies and systems for managing forests.

More effective cooperation between developed and developing countries can be promoted through knowledge-based networks. Partnerships between funding agencies, the research community, businesses and governments, coupled with a global dialogue amongst relevant stakeholders, can help to narrow knowledge gaps and stimulate green growth.