



## Future of LCS-RNet

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The first five-year phase since the establishment of LCS-RNet is now complete. How should this network transition as it enters its second phase, so as to respond more timely and appropriately to the needs of the climate change policy making community? Steering committee members and other participants discussed the future of the network intensely at the Fifth Annual Meeting in Yokohama.

They recognized the increasing responsibility of the experts community to engage in the climate policy making process, insofar as climate impacts are appearing clearly, making response strategies urgently required. The primary task for the next five years in creating a low-carbon society is to develop a concrete policy scheme in each country before the start of the expected 2020 regime.

They reaffirmed that the primary aim of the network remains unchanged. It is to use dialogue with the scientific community to inform policymakers of the practical options for developing low carbon societies, consistent with the long-term objective of the UNFCCC.

The network has set forth the following objectives:

1. Prepare options papers and workshops for informing governments of technical developments and for discussion through the UNFCCC process
2. Develop partnerships with entities engaged in related scientific fields and in developing policies, and with industries
3. Develop a database of and assessment of policies and actions already underway

4. Prepare communication materials to enhance the information provided to the public

Discussions addressed ways to enhance the impact on the policy process:

- This network has a role of consistently communicating the importance of a transition to low carbon options.
- Strengthen cooperation with likeminded international organizations such as the World Bank, as LCS-RNet can be a core and unique network among those with similar objectives.
- In working towards practical policy formation and execution, the network should further promote knowledge exchanges among experts in various areas including science and industry, while also promoting dialogues with policy makers. Although basically the network should be a forum for researcher collaboration, strong support from, and “buy-in” by, governments is another baseline of its existence.
- The role of the network is to evaluate the effectiveness of policies and provide timely alternatives backed up by scientific evidence regarding key issues to promote climate policy through thoroughgoing discussions.
- Strengthen policy delivery. Mobilizing actors in civil society and industry is important when implementing policy.

In light of various points of advice and suggestions, the Secretariat is starting to redesign its work plan for the new phase. The Secretariat always welcomes advice and comments from members and readers. <http://lcs-rnet.org/>

### 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.

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## LCS-RNet Fifth Annual Meeting in Yokohama, Japan



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The Fifth Annual Meeting of the International Research Network for Low Carbon Societies (LCS-RNet) was held in Yokohama, Japan in July 2013. Challenges in bringing about low carbon societies (LCS) include difficulties within the current socio-economic situation, notably in the context of the economic recession in several countries, as well as energy system risks and uncertainties that include both the Fukushima accident and the entrance of an enormous quantity of shale gas into the energy market. At the same time, the impacts of climate change have become a top global concern, with extreme weather causing severe damage. Given such circumstances, LCS research is increasingly going beyond the stage of theory to impact practice more directly.

A number of issues were discussed at the meeting, such as overcoming the difficulty of transitioning to an LCS, enhancing reduction and efficiency of material use, tools and methodologies for developing LCS plans, ways to bridge competition and foster co-operation within the energy system, and ways to increase the scale of the flow of finance to actions addressing climate change. Participants reasserted that mainstreaming climate policies is an important agenda item to

pursue, as mainstreaming gives leverage to other efforts towards sustainable development.

Many low-carbon initiatives are underway in different parts of the world. Some have been incorporated into new policies, institutions and mechanisms implemented by governmental or intergovernmental agencies, while others have been in the form of technological developments and market diffusions. Others are local-scale sustainability initiatives led by local governments, non-government groups, communities, and entrepreneurs.

Several young researchers were invited to the meeting and they joined in the discussions. Knowledge sharing and capacity building are important functions of LCS-RNet. “Knowledge” includes methodologies for setting LCS visions and roadmaps, the data for creating LCS plans, experiences and good practices to share with others. The role of researchers is not only to develop but also to apply methodologies in cooperation with policymakers, citizens and other stakeholders. LCS-RNet is expected to contribute to the realization of LCS by linking research output with stakeholders.

### Fifth Annual Meeting of LCS-RNet in Yokohama, Japan



The Fifth Annual Meeting was co-hosted by the National Institute for Environmental Studies (NIES), the Institute for Global Environmental Strategies (IGES) and the Ministry of the Environment of Japan, in cooperation with the International Research Network for Low Carbon Societies (LCS-RNet).

Discussions at the meeting addressed lessons learned from past transitions within a wider global context, how to secure adequate investment finance, and how to stimulate structural changes that could precipitate more fundamental social change. The future of LCS-RNet was also discussed and expectations towards the network were emphasized, as the network provides means for extending the dialogue by involving policymakers and businesses as well as researchers.



## LCS-RNet Fifth Annual Meeting in Yokohama, Japan

### Key Messages From the Meeting

The following are a listing of the major findings arising from the Fifth Annual Meeting of the International Research Network for Low Carbon Societies (LCS-RNet) held on 22-23 July 2013 in Yokohama, Japan.

The Fifth LCS-RNet Annual Meeting considered how a low carbon society could be achieved against a complex social and economic background. The aftermath of the economic recession, instability in employment, political instability in the Middle East and a widening gap between the rich and the poor pose many challenges. These uncertainties combine with the availability of new sources of energy, such as shale gas, and the impacts of the nuclear accident at Fukushima. At the same time, measures to address climate change have become increasingly urgent as a result of intensifying concerns about extreme weather events and the medium- to long-term impacts of climate change. Discussions at the meeting addressed the lessons learned from past transitions within a wider global context, how to secure adequate investment finance, and how to stimulate structural changes that could precipitate more fundamental social change. The key findings are summarized below.

#### Towards transitioning to a low carbon society

Fundamental changes in the way of producing and consuming a large variety of goods are needed to address the global challenge of climate change. Delays in the transition will result in less optimal alternatives becoming locked in, resulting in a society that emits an unnecessarily large amount of carbon.

Measures to lower carbon emissions levels need to be explored more comprehensively. Such measures include demand management, reduction of resource use, re-use of resources and extending the lifetimes of products and buildings. Improvements in energy supply technologies and a shift to a low carbon energy mix are important, as is a reduction in energy demand. Transitioning to a low carbon society can stimulate the economy and create new industries.

In order for GHG emissions to decrease significantly, the global consumption of materials must be reduced. Dematerialization (the improvement of resource efficiency) will play a major role in reducing demand, as will improving and disseminating technologies to end-users.

#### Towards mainstreaming climate policies

The relevance of the peak oil debate to climate change is now called into question due to the emergence of new sources of hydrocarbons such as shale oil and shale gas. The displacement of coal by shale gas may lead to a reduction in emissions in countries that are affected directly, but there is a high risk of carbon leakage. While shifting from coal to shale gas may bring short- to medium-term benefits, such a shift cannot be a long-term solution to climate change. New energy options such as shale gas could result in falling energy prices and discourage reductions in energy demand. Energy issues need to be considered within the context of climate change. Policies that can engage both developed and developing countries are needed. Energy policy needs to be steered at the political level if the climate is to be stabilized and the use of fossil fuels mitigated at the global level.

Cooperation is essential if social and environmental goals are to be achieved, while competition will help to achieve goals in an economically efficient manner. The choice of policy instruments that bridge the competition and cooperation in the energy market is key to the green growth transformation and delivering economic and environmental benefits. The reform of energy markets for low carbon green growth has to go side by side with policies and programs favoring sustainable development. The development of sustainable infrastructure is needed to avoid lock-in. Given the close linkage between GHG mitigation and energy policy, effective international climate policies and carbon markets are necessary if low carbon green growth is to be promoted through reforming markets. There is a need to identify: a) policies that will promote low carbon energy resources and technologies; and b) international mechanisms that promote the effective and affordable transfer of technologies and the development of regional clean energy markets.



#### Up-scaling investments to realize low carbon societies

The level of investment needed to achieve low-carbon societies has become increasingly clear. Investment from both the public and private sectors will be needed. However, the current economic climate has inhibited investment from the private sector, while public financing will be insufficient by itself. Globally, private investment flows accounted for 74% of total climate finance in 2010-2011. Multilateral banks such as ADB have implemented several pump-priming programmes to attract and scale up private investment. Microfinance has a potentially important role to play in developing countries.

A vision and an appropriate set of policies and measures are necessary to direct investment towards low carbon projects/programs at the global level. The long-term benefits need to be considered when resources are invested. Meeting the challenges will require innovation in terms of both structuring and sourcing finance and technology. The policy environment should be re-designed so that climate change becomes a mainstream consideration in investment decisions.

#### Integrating local LCS actions into global challenges

While international negotiations and climate change measures have progressed only slowly in most countries, low carbon plans and initiatives at the city level have moved forward significantly. This suggests that a bottom-up approach can accelerate the transition to low carbon societies at a global scale.

Low carbon processes at the city level can lead to a self-organizing process in which a spectrum of new activities emerge and contribute to sustainability transitions. The actors involved can translate their ideas into concrete form within their own networks and organizations. Bottom-up approaches can empower a range of social actors to contribute to common goals, with a common language, outlook and agenda serving as the coordinating mechanism.

#### Accelerating the transition to low-carbon societies

The transition to a low carbon society will imply fundamental changes in the underlying culture, structure and behaviour of societies. The pursuit of the low carbon agenda continues to be a challenge. In order to make a successful transition, it is essential to have a vision and an appropriate toolbox of mitigation policies whose efficacy and efficiency have been assessed.

Knowledge and innovation are critical when sharing best practices and scaling up successful projects in complex areas such as low carbon societies. As well as helping to realize the transition, knowledge and innovation can develop and create new ideas and practices and also extend to different sectors through their application and utilization in daily life.