

This is only a part of key findings of the sessions; more details can be found in the synthesis report of LoCARNet Bogor meeting: [http://lcs-rnet.org/pdf/publications/2014\\_3rd Annual Meeting of LoCARNet%20in%20Bogor.pdf](http://lcs-rnet.org/pdf/publications/2014_3rd%20Annual%20Meeting%20of%20LoCARNet%20in%20Bogor.pdf)

### Promoting an Integrated Knowledge-Base System for Scientific Low-Carbon Development Policymaking in Asia – Part I

There are different pathways to science-policy interaction, mostly depending on political situation. Based on the experience of Indonesia and Japan for, instance, science-policy interaction originating from strong political commitment (as in the case of Indonesia) can make better use of scientific information.

### Promoting an Integrated Knowledge-Base System for Scientific Low-Carbon Development Policymaking in Asia – Part II

Integration of science and policy is vital. Integrated research can delineate insights, assess implications and discover policies and implementation roadmaps.

### Grand Regional Research Strategies

Countries in Asia are preparing for low carbon development with specific efforts and are showing willingness to cooperate.

### Local Research Initiatives for Supporting Strategies

Incorporating socioeconomic aspects into the development of a low carbon scenario will improve the robustness of the results and might be closer to the real-life situation.

### Carbon Monitoring System Innovation, toward a Low Carbon Campus, City and Region

Potential use of satellite to ensure scientific and effective MRV in connection with global efforts to reduce GHG emissions. Combination of methods and data (satellite and ground-based data) will make information more comprehensive and improve data reliability.

### APN Low Carbon Initiatives

Policy briefs should be provided as categorised recommendations that are suitable for policymakers at the city, regional, and national levels.

### New Co-Financing Model of Research Partnership in the Asia-Pacific

A mechanism is required to establish links between financing and research development, for example in the form of incentives such as tax reductions, soft loans for environmental investment, etc.

### Low Carbon and Resilient Cities – Showcasing Concrete Actions and Good Practices

Technology initiatives for low carbon cities are available; however, awareness raising and capacity building for technology uptake to ensure sustainable behaviour changes are essential to move forward.

### REDD+ and Community-Based Forest Management

A simpler scheme for carbon trading (e.g., direct agreement between emitters [companies] and local communities) is preferable to help CBFM participate in carbon trading.

### Low Carbon, Climate-Resilient Society: Integration of Mitigation and Adaptation Policies in Cities in Asia

Improving land-use planning with consideration for the climate (climate-sensitive land-use) can be a successful approach for effectively integrating mitigation and adaptation.

### GHG Reduction Potential in Each Country and Role of Research Community

Close engagement and collaboration between diverse groups including the research community, policymakers, and local communities is key for ensuring effective formulation of climate policy and successful implementation of low carbon development. Understanding the local context in socioeconomic and engineering terms will allow these groups to shape a precise vision for a future low carbon scenario well-suited to the particular local environment.

### Remote Sensing and Sustainable Forestry Management

INCAS is a good modelling tool to support the development of a reliable MRV system for REDD+. However, this system requires some improvements to enable wider adoption across the country, for example to include measurement of emission from peat fires (especially obtaining the fire activity data and assessing the impact of logging and other forest management practices) and refinement of the model to reduce the uncertainty to an acceptable level.

### Wrap-up

Asia is home to a sizeable proportion of low income families. Their development needs require special attention to ensure that welfare is not compromised.



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### Prof. Rizaldi Boer

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The Third Annual Meeting of Low Carbon Asia Research Network (LoCARNet) was held from 24-26 November 2014 in Bogor, Indonesia, and highlighted the huge risk of climate change to human well-being and the urgent need to take actions for mitigating climate change. If Asian countries continue their development under business as usual (BAU), it may be impossible to avoid the increase of global temperature of more than 2oC. Most Asian countries are now experiencing rapid economic growth. In a BAU scenario, Asian countries may be responsible for 50% of total global emissions by 2050. The workshop emphasised the importance of regional cooperation for low-carbon transition and suggested drawing on Asian wisdom as a way to contribute to stabilising the climate. The LoCARNet participants drew up the 'LoCARNet Bogor Declaration' confirming that Asia is ready for low-carbon transition and now awaits signals from the

Paris Climate Change Agreement to deploy actions towards climate stabilisation (<http://lcs-rnet.org>).

Asian countries that are aiming for low-carbon transitions have carried out many initiatives, and many innovations on green technologies are already available. Efforts to accelerate the transfer of innovative technologies among Asia countries would be crucial as timing is very critical. There is an urgent need for research communities to play a role in enhancing practices, advancing and accelerating innovation on zero and low-carbon technologies including their dissemination. Regional collaboration must be strengthened on research and education with enough financial support, and there also need to be more frequent Science-Policy dialogues that can stimulate the creation of innovative policies for low-carbon and encourage the involvement of the private sector in promoting and developing low-carbon technologies.

### About LoCARNet Bogor meeting

The Third Annual Meeting of the LoCARNet was co-organised by Bogor Agricultural University (IPB), Bandung Institute of Technology (ITB), State Ministry of National Development Planning (BAPPENAS), Ministry of Environment and Forestry, Indonesia (KLHK), National Institute for Environmental Studies (NIES), Institute for Global Environmental Strategies (IGES), and Ministry of the Environment, Japan (MOEJ). The overall contents of the meeting highlighted the huge risk of climate change to human well-being as predicted by the science community, as well as welcoming the start of a new global regime to avert this situation and confirming the growing importance of regional cooperation for low-carbon transition. The importance was also recognised of drawing on Asian wisdom to contribute to stabilising the climate. Following the highlights, the LoCARNet participants drew up the LoCARNet Bogor Declaration confirming that Asia is ready for low-carbon transition and now awaits signals from the Paris Climate Change Agreement to deploy actions towards climate stabilisation.

For more details of the meeting, please refer to the LoCARNet website at: [http://lcs-rnet.org/locarnet\\_meetings/2014/08/130](http://lcs-rnet.org/locarnet_meetings/2014/08/130)  
For the synthesis report, please refer to the publication: [http://lcs-rnet.org/pdf/publications/2014\\_3rd Annual Meeting of LoCARNet%20in%20Bogor.pdf](http://lcs-rnet.org/pdf/publications/2014_3rd%20Annual%20Meeting%20of%20LoCARNet%20in%20Bogor.pdf)



# Key Findings from LoCARNet 3<sup>rd</sup> Annual Meeting in Bogor, Indonesia

The Third Annual Meeting highlighted and discussed challenges and opportunities which are seized and realised by research collaborations and knowledge sharing, and positive actions supported by global climate policies including technology transfer and incremental finance. The key findings from the meeting lie in five areas: tools and methodology to rationalise target setting and low carbon policies; application of low carbon technologies at the national and local levels and the monitoring of implementation; financing of regional and sectoral research; capacity building through south-north and south-south cooperation and networking; and how to fill gaps among policymakers, researchers and the private sector, and between policies and their implementation.

## Effective tools and methods for policy transformation to low carbon development

A coupling model such as the integrated assessment model is a promising tool to perform comprehensive mitigation assessment both for emission reduction and for socioeconomic indicators. Changes in the global economy will be taken into account by the tools in assessing the potential of the sector to reduce GHG emissions. However, it will require careful assumptions with regard to mitigation costs and the areas for implementation of the measures.

Science plays an important role in devising integrated climate actions by using various tools and methods to assess risks, develop solutions, and evaluate their efficacy. Scientific input is essential to sound policy development on climate change because of the very nature of climate change (it is interdisciplinary—it covers many disciplines and sectors). Even without clear political decision, support from the scientific community (scientists, academia) can still provide valuable assistance in terms of climate change adaptation and mitigation (for example, modelling can help allocate responsibilities and resources among sectors).

## Low carbon technologies for stabilising climate

To attain a low carbon future scenario for developed and developing nations in Asia, policymakers are encouraged to pay attention to GHG mitigation in the energy sector. This entails reducing energy consumption by introducing advanced technologies to increase energy efficiency and promoting renewable energy to avoid fossil fuel dependency.

Global agreement on emission reduction can lead to the establishment of mitigation programmes and initiate inter-government collaborative action to promote monitoring of GHG emissions. With mitigation actions on such a global scale, technology development can be promoted with the involvement of the private sector to co-finance research on commercial opportunities to attract the business community.

Transfer of technology and technology-related capacity building can address the technology gap between developed and developing countries, particularly in establishing a database to support emission reduction efforts. Focusing on specific problems and applying appropriate technology might overcome any associated limitations, for example in dealing with limited data availability.

## Innovative financing for supporting low carbon development

In order to increase funds for low carbon development, an innovative financing system can be established by assessing mitigation potential not only at the national level, but also at the regional level, and identifying feasible financing options through regional collaboration. National-level funds can contribute to enhancing such activities at the regional level through effective collaboration. Developed countries, international organisations, and regional networks can also play an active role in facilitating mitigation activities in developing countries.

For financing with a local approach, it is possible to establish a fully self-funded conservation project with a zero-cut policy using an enterprise management approach. It is more effective to treat funding for activities on a local scale (such as community-based forest management) as an investment rather than a grant. It increases the local community's sense of responsibility for properly managing the money.

## Expanding capacity through networking

Capacity for enhancing climate resilience and decarbonisation can be built through close communication with all stakeholders including policymakers, the private sector, and NGOs, and through the process of networking, informing, and encouraging their engagement from the early planning stages and throughout the policy development and implementation.

Some universities are still in the early stages of undertaking dedicated research focusing on climate change, while others have already become involved and are producing advanced research on low carbon development scenarios. Thus, knowledge exchange and mutual learning are necessary for capacity development in Asia. Diversity among Asian nations poses challenges for framing uniform policies, but provides opportunities for discovering a range of options. Regional cooperation for low carbon research is therefore challenging as well as rewarding.

In cooperation and financing, several modelling studies on low carbon pathways exist; however, these are fragmented and 'non-inclusive', especially in terms of developed versus developing country perspective, emphasis and participation. Future research can benefit from cooperation whereby teams of researchers from diverse countries are formed. Cooperation between researchers from different countries can provide support for sharing of data and ensure comparably robust research methodologies across countries and regions. Cooperation between regions for technology transfer will help achieve faster deployment of low carbon technologies in Asian countries. However, researchers will have to work with local implementation agendas and collaborate internationally to take advantage of capacity building opportunities.

## Filling gaps to accelerate transformation/transition towards low carbon society

Deep decarbonisation to achieve the global 2 degree temperature stabilisation target is feasible, but challenges remain. Achieving this will require global engagement, shared vision, purposive cooperation and realistic policies. Coordination between researchers, governments and the private sector can mutually support mitigation action based on technology development and deployment, and enforcement of policies.

At present, numerous members of the scientific community are already involved in the area of climate policymaking. However, this alone could be insufficient to make a real contribution to successful low carbon development. As the climate change research field grows, with the additional dimension of implementation to deliver policy on the ground, it is necessary for the scientific community to pursue new knowledge by researching policy implementation in order to address associated issues.

Although communities and cities face many challenges, there are significant opportunities at the local level to benefit from taking integrated action on mitigation and adaptation. Addressing the problems in an integrated manner requires the commitment and coordination of cities that are, for example, located in a similarly affected area, such as a watershed.



### 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.

