Researchers Meeting - LCS-RNet -

International Research Network for Low Carbon Societies

Subject to final edit

1-2 April 2009

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This report was finalised on the basis of the information provided, discussions, and outputs of the Researchers Meeting:LCS-RNet held in Trieste, Italy in April 2009. LCS-RNet Secretariat would like to thank all the participants for their contributions.

Prepared by the LCS-RNet Secretariat, hosted by the Institute for Global Environmental Strategies

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INTRODUCTION

The Researchers Meeting of the International Research Network for Low Carbon Societies (LCS-RNet) was held in Trieste, Italy on 1-2 April 2009. The Meeting was co-organised by the Ministry of Environment, Land and Sea, Italy, and the LCS-RNet Secretariat.

This Meeting was the first collaborative international activity under the LCS-RNet which was created in response to the agreement of the G8 Environmental Ministers Meeting (EMM) held on 24-26 May 2008 in Kobe, Japan.

At Kobe, recognising the necessity of the promotion of research on low carbon societies (LCS) and the information exchange to help more countries to develop their own roadmaps towards LCS, participating Environmental Ministers supported the idea to create an international network of research institutions. Since then, with the initiative of the Italian Ministry of Environment, Land and Sea, G8 participating governments have nominated their research institutions to set up the Network and also have been considered objectives, possible activities, and organisational matters, and the progress was reported back to the G8 EMM government contact points in 2009.

This Researchers Meeting was organised prior to the High Level Forum for Low Carbon Technology and Development which was a part of the G8 EMM process under the Italian presidency in 2009, where the official kick-off of the LCS-RNet was announced.

Fifteen researchers from 10 research institutions nominated by six countries, seven government officials from five countries, and two international organisations participated in the Researchers Meeting of the LCS-RNet. (See also the List of Participants at the end of this Report.) Dr Vincenzo Artale from ENEA, Italy, and Dr Shuzo Nishioka from IGES, Japan, co-chaired the Meeting. Discussion points and conclusions were summarised in the Chairpersons' Summary and presented at the LCS-RNet Session in the G8 High Level Forum.

Following this introduction, this report of the meeting contains three parts:

PART 1: Overview and the agenda of the meeting and a summary of the issues agreed at the end of

the session and actions that need to be taken. List of participants is attached at the end Part I.

PART 2: Output of the meeting: Chairpersons' Summary and the draft Strategic Paper of the LCS-RNet drafted during the meeting.

PART 3: The presentations made by researchers representing each participating research institutions that include introduction of the LCS research and related activities conducted in those research institutions.

Part 1: Overview

1 - 1 Sessions of the Meeting

Since this was the first occasion of the research information exchange for participating researchers, substantial time was allocated to all participating research institutions to make presentations about their LCS related research, projects and activities; those were followed by question and answer sessions. Those presentations can be found in Part 3 of this report.

One of the main objectives of the meeting was to consider the activities, roles of researchers and governments, and decision-making function of the Network. The detailed discussion was reflected in the draft Strategic paper which is presented in Part 2 as mentioned above.

1 - 2 Discussion points

Through discussions in the meeting, various themes and areas of LCS research were identified: these were stipulated in Chairpersons' summary.

Examples of key issues that were identified were as follows:

- Importance of scientific integrity, with the new ways to figure out the boundary between science. and policy through the dialogue processes.
- Importance of thinking in long- and short-terms.
- Integrated research of socio-economic concerns with LC technologies to consider roadmaps.
- Importance of the sub-national level, and the national and international approaches to those levels
- Concept of leapfrogging and sustainable development for developing countries.

Researchers Meeting International Research Network for Low Carbon Societies - LCS-RNet -

1 - 2 April 2009

New Congress Center, AREA Science Park, Trieste Italy

Organised by the Ministry of Environment, Land and Sea, Italy, and the LCS-RNet Secretariat

Objectives of the Meeting are:

- To provide the first contact of core researchers involved with LCS-RNet,
- To exchange information of researches related to LCS study,
- To discuss research themes/areas for collaboration among participating research institutes
- To exchange ideas how to utilize LCS-RNet for research activities, and identify roles of research institutes to organize the network, and
- To discuss management, decision-making function, and other organisational matter

Expected outputs:

- Strategic Paper that covers objective, activities and outputs, future plan, management and organizational matters of LCS-RNet,
- Chairpersons' summary that includes key outputs of this meeting.

 These are to be reported at the LCS-RNet Kick off Meeting in the High Level Forum of the Low Carbon Technologies on 5th April.
- Meeting Report including above items and presentations by participants.

Participants: upon invitation by LCS-RNet,

Researchers with focus on LCS/Researchers of LCS-RNet,

Observers - Representatives from governments to LCS-RNet or G8 Environmental Ministers Meeting, intergovernmental, international and non-governmental organisations.

Agenda

<u>Day 1</u>				
13:30	_	14:00	Registration	
14:00	-	14:05	Welcome Address - Ministry of Environment, Land and Sea, Italy	
14:05	_	14:30	Introduction Objectives of this meeting, Introduction of LCS-RNet	Shuzo Nishioka
14:30	_	15:15	Open Discussion: "What do you expect from this LCS-RNet? What is Value Added of this LCS-RNet?"	Co-Chairs
15:15	_	15:45	Break	
15:45	_	16:25	Open Discussion: "What kind of function is necessary for this LCS-RNet to realize our wish?"	Co-Chairs
16:15	_	17:45	Presentation from each research institute (continued): Current LCS research activity, future LCS research plan, expectation on this LCS-RNet - CMCC (Giulia Galluccio) - FEEM/CMCC (Alessandra Goria) - UKERC (Mark Winskel)	Facilitator: Stefan Lechtenböhmer

			Discussion	
17:45	_	18:00	Wrap up of the first day	Co-Chairs
			Cocktail	
			Adjourn	
18:30	_	20:00	Drafting key decisions on management and strategic paper continues	Volunteers and Co-Chairs
<u>Day 2</u>				
9:00	_	9:15	Objectives of today's discussion	
9:15	_	10:45	Presentation from each research institute (continued): Current LCS research activity, future LCS research plan, expectation on this LCS-RNet - DDRI (Michel Colombier) - Wuppertal Institute (Stefan Lechtenböhmer) - NIES (Junichi Fujino)	Facilitator: Mark Winskel
			Discussion	
10:45	_	11:00	Break	
11:00	_	12:30	Presentation from each research institute (continued) Current LCS research activity, future LCS research plan, expectation on this LCS-RNet - ENEA (Vincenzo Artale) - ADEME (Daniel Clement) - IGES (Takashi Otsuka)	Facilitator: Giulia Galluccio
			Discussion	
12:30	_	14:00	Lunch	
14:00	_	15:00	Presentation from each research institute (continued): Current LCS research activity, future LCS research plan, expectation on this LCS-RNet - OECD (Jan Corfee-Morlot) - IEA (Carrie Pottinger) - NIER, Korea (Lyu Young Sook) Discussion	Facilitator: Michel Colombier
15:00	_	16:00	Discussion on Strategic Paper: "Activities and output, future plan, management and organizational affairs including decision-making body."	Co-Chairs
16:00	_	16:30	Break	
16:30	_	16:55	Chairpersons' summary (this summary will be reported at LCS Session in G8Technology Transfer" workshop on 5th April)	Co-Chairs
16:55	-	17:00	Closing remarks	

List of Participants

LCS-RNet research institutions

France

ADEME - French Environment and Energy Management Agency

CLEMENT, Daniel

IDDRI - Institute for Sustainable Development and International Relations

COLOMBIER, Michel

Germany

Wuppertal Institute for Climate, Environment and Energy LECHTENBÖHMER, Stefan

Italy

ENEA - Italian National Agency for New Technologies Energy and the Environment ARTALE, Vincenzo * IACOBAZZI, Agostino

CMCC - Euro Mediterranean Centre for Climate Change GALLUCCIO, Giulia

FEEM - Fondazione Eni Enrico Mattei FAVERO, Alice GORIA, Alessandra

Japan

NIES - National Institute for Environmental Studies FUJINO, Junichi KAINUMA, Mikiko

IGES - Institute for Global Environmental Strategies as LCS-RNet Secretariat NISHIOKA, Shuzo * MIWA, Kyoko OTSUKA, Takashi

Korea, Republic of,

NIER - National Institute of Environmental Research LYU, Youngsook

United Kingdom

UK Energy Research Centre WINSKEL, Mark

* Co-Chairs of the Meeting

Observers

Canada

Natural Resources Canada DUFOUR, Paul Environment Canada GRACIA-GARZA, Javier

Egypt

Ministry of the Environmental Affairs El AGAMAWY, Hisham

Germany

Federal Environment Agency, Sustainable Energy Supply PICHL, Peter

Italy

Ministry for the Environment, Land and Sea CAROPRESO, Giorgia CALTAGIRONE, Manfredi

Japan

Ministry of the Environment, Global Environment Bureau, Global Environment Research Office TAKAHASHI, Shoko

IGOs

IEA - International Energy Agency
POTTINGER, Carrie
OECD - Organisation for Economic Co-operation and Development
CORFEE-MORLOT, Jan

Part 2: Outputs

Following items were the outputs of the Meeting.

Strategic Paper of the LCS-RNet

The draft Strategic Paper which can be found in Part 2 of this report, was developed to lay out the objective, activities and outputs, future plan, management and organisational matters of LCS-RNet. The Background Paper, prepared and circulated to the G8 and outreach countries, as well as presentations and discussions during the Researchers Meeting served as the basis of the consideration by participants in drafting the Paper.

The meeting, recognising the necessity to consider further about the decision-making function of the LCS-RNet, decided to set up the Interim Steering Group to prepare the proposal for the first Annual Meeting of the LCS-RNet. The Strategic Paper will be further elaborated in conjunction with the proposals of the Interim Steering Group and the decisions at the Annual Meeting of the LCS-RNet.

Chairpersons' summary

Co-chairs prepared Chairpersons' summary that includes key discussion points, findings and conclusions of the meeting. In drafting, comments made by participants were carefully considered and reflected in the summary. This Paper was reported to the High Level Session in Trieste.

Researchers Meeting

International Research Network for Low Carbon Societies

Chairpersons'* Summary

The establishment of the International Research Network for Low Carbon Societies was proposed by the Government of Japan and strongly supported by the participants of the G8 Environment Ministers Meeting (G8EMM) held in May 2008 in Kobe, Japan. At the Preparatory Meeting of G8EMM held in March 2009 in Rome, the progress in the preparation for establishing LCS-RNet was reported.

On the 2nd of April 2009, LCS-RNet took a significant first step in Trieste, Italy. Twenty-four participants from eight countries¹ consisting of researchers with different backgrounds², government officials, and experts from intergovernmental organisations³ gathered for LCS-RNet Researchers Meeting and discussed the strategic planning of its activities for the next five years. Major conclusions of the meeting are as follow.

Innovative nature of LCS-RNet

Integration of science and technology, society, and policy is the innovative value-added of this LCS-RNet. This platform will serve as a vehicle to promote information exchange and research cooperation, to enhance understanding of LCS among various stakeholders, and to contribute to policy-making dialogues, including G8, by providing relevant research outputs and recommendations.

^{*} Dr. Vincenzo Artale, Italian National Agency for New Technologies Energy and the Environment (ENEA) and Dr. Shuzo Nishioka, Institute for Global Environmental Strategies (IGES).

¹ Canada, Egypt, France, Germany, Italy, Japan, Republic of Korea and UK.

² ADEME (France), IDDRI (France), Wuppertal Institute (Germany), CMCC (Italy), ENEA (Italy), FEEM (Italy), IGES (Japan), NIES (Japan), NIER (Republic of Korea) and UKERC (UK).

³ IEA and OECD.

Research themes/areas/approaches

The meeting recognised that:

- LCS particularly the integration of science and technology, society, and policy is a relatively new research field and there are a number of issues which require collaboration among researchers with different disciplines;
- There are various definitions of LCS and may be different pathways for each country and locality to achieve LCS, while there are lessons to be learnt from each other on common approaches to LCS topics;
- Key research elements for LCS include:
 - scenario and modelling approaches,
 - o interdisciplinary perspectives on the transition to LCS,
 - o integration of environmental, energy, economic and social systems, and
 - o dissemination of knowledge and building awareness outside the scientific community;
- LCS should be considered in the context of sustainable development and enabling environments for developing countries to leapfrog to LCS avoiding possible lock-in to high carbon societies;
- LCS technologies should be considered as a whole, as part of a larger system including technical, social and economic dimensions;
- "Cities" could be a good level of analysing and realising LCS; and
- Support provided by G8 countries for the establishment of LCS-RNet is an important part of the strength of the Network and its effort to better link research and policy-making communities.

Membership and Decision-making Functions

Considering the importance and benefits of broad participation of research institutions related to LCS, not limited to those in G8 countries, membership should be widely open. For the efficient management of the Network, a Steering Group will be set.

Future Actions

In the Researchers Meeting, it was unanimously agreed to set up an Interim Steering Group, which consists of G8 countries' registered research institutions. The Interim Steering Group will prepare the procedure and the mandate of the Steering Group and its composition.

The Euro-Mediterranean Centre for Climate Change (CMCC) offered to host the 1st Annual Meeting in late October in 2009 in Bologna, Italy with the support of the Government of Italy.

The Researchers Meeting participants gratefully acknowledged support from the Government of Italy and the Government of Japan, which enabled a successful launching of LCS-RNet. The meeting extended its welcome to all governments to make their best efforts to reflect LCS-RNet activities in G8 policy processes and other high level policy processes.

International Research Network for Low Carbon Societies LCS-RNet

Strategic Paper (Draft, subject to edit)

I. Introduction

The International Research Network for Low Carbon Societies - LCS-RNet - is an international network of research institutions, whose objective is to contribute to the global effort to tackle the climate change by sharing the up-to-date scientific findings on visions and pathways towards low -carbon societies (LCS) with researchers, decision-makers and other stakeholders. This paper presents the nature and the objectives of LCS-RNet and a general framework for the activity plan and the management procedure of LCS-RNet for the next five years.

II. Background

At the G8 Environment Ministers Meeting held on 24-26 May 2008 in Kobe, Japan, then the Japanese Minister of the Environment, Mr Ichiro Kamoshita, proposed to set up an international network of research institutions with G8 countries to promote research on low-carbon societies¹. The network is to be a part of international initiatives aiming to solve the most urgent global issues of climate change. The proposal was welcomed with unanimous support by the G8 Environment Ministers.

At the Heiligendamm Summit held in 2007, noting the scientific and socio-economic analysis and assessments including the IPCC AR4(2007), the G8 Leaders agreed to consider seriously to halve global emissions by 2050, to mitigate climate change that is caused by the increasing atmospheric concentration of greenhouse gases. To realise such a long-term goal, the G8 Environment Ministers who met in Kobe in 2008 reached the general recognition on the necessity of transition to low-carbon societies from the current socio-economic structures, and the importance of all countries to have a clear vision of their own low-carbon societies. With the above consensus, the Meeting strongly supported the establishment of the International Research Network for Low Carbon Societies (LCS-RNet). With the support and cooperation of government agencies of the G8 countries, participating research institutions will promote research cooperation and information exchange under the Network to help countries to visualise their own low-carbon societies. LCS-RNet will also promote dialogues between researchers and various stakeholders including businesses and citizens, and develop materials for education and public awareness.

At the same meeting in Kobe, the Ministry of the Environment, Japan, also proposed to designate a research institute from Japan to serve as the Secretariat of the LCS-RNet.

In responding the strong support of participants at the G8 Environment Ministers Meeting in Kobe 2008, the background paper of the International Research Network for Low Carbon Societies - LCS -RNet - was prepared by the Italian Ministry of the Environment, Land and Sea and the Institute

¹ The low-carbon society may be defined as, but not limited to, a society that:

[•] takes actions that are compatible with the principles of sustainable development, ensuring that the development needs of all groups within society are met;

makes an equitable contribution towards the global effort to stabilise atmospheric concentrations of carbon dioxide and other greenhouse gases at a level that will avoid dangerous climate change through deep cuts in global emissions;

demonstrates high levels of energy efficiency and uses low-carbon energy sources and production technologies, and

adopts patterns of consumption and behaviour that are consistent with low levels of GHG emissions.

This is from the working definition of Japan-UK Joint Research project on LCS, and will be further elaborated during the LCS-RNet activities.

for Global Environmental Strategies, Japan, and subsequently circulated among participants of the Preparatory Meeting of the Syracuse Environment Ministers Meeting in March 2009 for their consideration. The background paper and comments gathered from participants of the Preparatory Meeting and others relating to the LCS research were considered by researchers of LCS-RNet and further refined to develop this strategic paper.²

III. Objectives and the Nature of the Network

III – (i) Objectives

Realization of low-carbon societies is an urgent global challenge. To tackle this, it is necessary to develop an international research network which enables the integration of scientific knowledge around the world more effectively and efficiently. By strengthened networking, researchers will have more opportunities to share ideas and to cooperate with research institutions in G8 and outreach countries, and other developed and developing countries. In addition, with its direct link to the G8 Environment Ministers Meeting process, researchers will continue efforts to communicate with decision-makers, as well as other various stakeholders such as businesses, IGOs, NGOs, to share social, economic and scientific research findings to enable the science-based policy making to realise low-carbon societies.

Having considered the above points, the specific objectives of LCS-RNet are set to:

- 1. promote information exchange and research cooperation that cover various issues relating to low-carbon societies,
- 2. promote understanding of LCS through dialogues between researchers and various stakeholders including policy-makers, businesses, citizens and others to share national and subnational visions on low-carbon societies, and
- 3. contribute to international policy-making processes on climate change including G8 process by providing research outcomes and recommendations.

III - (ii) Nature

Scientific integrity is fully respected under LCS-RNet.

A platform of LCS research

The basic nature of LCS-RNet is a platform to support and encourage information sharing and voluntary cooperation and collaboration among research institutions specifically in the field of LCS research. LCS-RNet also helps the interaction between researchers and various stakeholders, and delivers their findings to policy-makers to make science-based policy making possible in a transitioning to low-carbon societies.

Non-binding network

LCS-RNet is a non-binding network, and its activities and outcomes are independent from official views of any governments, and while policy relevant, should not be policy prescriptive. It is important to note that participation in the Network will not hamper individual research activities in any ways.

² As of February 2009, nine research institutions from five countries (France, Germany, Italy, UK and Japan) have registered with LCS-RNet, and more countries and research institutions are expressing their willingness to participate in the activities. See also Attachment.

³ Researchers Meeting of the LCS-RNet, co-organised by the Ministry of Environment, Land and Sea, Italy, and the Secretariat of LCS-RNet, was held on 1-2 April 2009. The meeting exchanged information of the latest LCS research, how to define LCS, ideas on how to make use of this network to contribute the promotion of LCS research in various countries, as well as on the management of LCS-RNet.

IV. Research and Activity Planning

IV – (i) Research themes/area(s)

Researchers identify the following research elements to focus during the next five years under LCS-RNet:

- Scenario and modelling approaches for LCS,
- Interdisciplinary perspectives on the transition to LCS,
- Integration of environmental, energy, economic and social systems, and
- Dissemination of knowledge and building awareness outside the scientific community.

Researchers also note the importance to work with non-national levels, to assist them to implement efficient policies and measures, and to help them to share relevant information on LCS.

IV – (ii) Activities and outputs

Pursuing the objectives stipulated above, researchers consider the following activities as effective vehicles to realise the goal of LCS-RNet, based on the research activities of participating research institutions.

Cooperation of research activities and information exchange

Activities

- Annual researchers meeting
- Summer school type of one-week intensive study session

Outputs

- Reports of the annual researchers meeting
- Annual Reports
- Newsletters

Dialogue with stakeholders

Activities

- Promote and support stakeholders meetings in different national settings
- Develop tools/measures to facilitate dialogue with stakeholders
- Identify and communicate relevant research and outcomes for policy-makers

Outputs

Outputs understandable for policy-makers to fill the gap between researchers and policy-makers

Contribution to policy processes

Reports its activities and findings to G8, G20 Environment Ministers Meeting, Major Economies Meeting on Energy Security and Climate Change and other international policy processes

V. Membership and Decision-making Function

Although LCS-RNet is established under the G8 initiative, the basic nature of the Network must be inclusive and open to any research institutions and researchers who are willing to contribute to realise low-carbon societies. Keeping the interests of the wider participation of LCS research in mind, as well as the necessity to consider and also considering the efficient operation to deliver the quality of output by the end of the next five years, LCS-RNet sets out basic membership criteria and its function for decision-making in the following section.

<u>Membership</u>

Membership

Membership is open to any research institutions working on research relating to LCS. Member research institutions are to be registered to LCS-RNet by their governments.

Research Contact Points (RCP)

Having noted the above, one Research Contact Point from registered research institutions will be designated in each country to be responsible for the communication among LCS-RNet, the Secretariat and others.

Decision-making

To jump start the actual activities of LCS-RNet, the Interim Steering Group which consists of G8 countries' registered research institutions will be set up. The Interim Steering Group will prepare the procedure, the mandate and the composition of a Steering Group those to be agreed at the first Annual Meeting of the LCS-RNet.

The basic principles of decision-making under LCS-RNet are:

- 1. Any decisions of LCS-RNet will be made by consensus among participating research institutions.
- 2. [LCS-RNet will have a Steering Group that provides strategic guidance, advice and support for the Network.
- 3. Recognising the importance of the communication between scientific community and policy-makers, the Steering Group will consider the function to ensure such communication, including in its composition.]

Role of governments

Each government nominates relevant research institutions, as well as designates a Research Contact Point, to LCS-RNet. Each government that registers research institutions has a Government Contact Point (GCP) to LCS-RNet to help its research institutions and activities of LCS-RNet.

Each government shall make its best efforts to reflect the activities of LCS-RNet in the G8 processes and other high level processes.

Basic rules of financial matters

- 1. The costs of research activities and the participation of all activities of LCS-RNet are born by each participating research institution.
- 2. The administrative costs of LCS-RNet including hosting annual researchers meetings will be born by research institutions on a voluntary basis.

- 3. Notwithstanding the above basic rules, voluntary financial and other contributions from all participating countries/research institutions to the Network's activities, including hosting annual researchers meetings are highly encouraged. They may include financial support for holding events of LCS-RNet and travel costs to secure wider participation of developing country researchers.
- 4. The cost of personnel and the facility of the Secretariat which is hosted in the Institute for Global Environmental Strategies, Japan will be supported by the Government of Japan.

Secretariat

The Secretariat is responsible for the time management of the activities and supports the delivery of the products of the LCS-RNet for the next five years.

Attachment

LCS-RNet List of Research Institutions (As of April 2009)

France

Academie des Technologies / Academy of Technologies

Agence de l'Environnement et de la Maîtrise de l'Énergie / French Environment and Energy Management Agency (ADEME)

Iinstitut du Développement Durable et des Relations Internationales / Institute for Sustainable Development and International Relations (IDDRI)

Germany

Wuppertal Institut für Klima Umwelt Energie GmbH / Wuppertal Institute for Climate, Environment and Energy

Italy

Ente per le Nuove Tecnologie, l'Energia e l'Ambiente / Italian National Agency for New Technologies Energy and the Environment (ENEA)

Centro Euro-Mediterraneo per i Cambiamenti Climatici / Euro Mediterranean Centre for Climate Change (CMCC)

Japan

National Institute for Environmental Studies (NIES) Institute for Global Environmental Strategies (IGES)

Korea, Republic of,

National Institute of Environmental Research (NIER)

United Kingdom

UK Energy Research Centre (UKERC)