

IR3S / Tyndall Centre Joint Symposium (Draft Plan) **- Pathway toward low carbon society and global sustainability -**

Outline

Theme: Pathway toward low carbon society and global sustainability

Date: May 19- 21, 2009

Venue: University of East Anglia, UK

Participants: 50 - 100 participants including 25 participants from IR3S, Japan

Co-organized by

Integrated Research System for Sustainability Science (IR3S), the University of Tokyo

Tyndall Centre for Climate Change Research (Tyndall Centre), University of East Anglia

Co-coordinators

- Kazuhiko Takeuchi, Professor, Deputy Executive Director, IR3S, the University of Tokyo / Vice-Rector, United Nations University
- Kevin Anderson, Professor, Director, Tyndall Centre / University of East Anglia / University of Manchester

Summary

This symposium aims to make international, interdisciplinary and intergenerational contributions to global sustainability with a central focus on Low Carbon Society and discuss how to design integrating frameworks through the cooperation of IR3S and Tyndall Centre.

The conference has four primary objectives:

1. Review and discuss the current status of the research activities, goals and policies of the research networks and future challenges, in order to promote mutual understanding between the networks,
2. Discuss how scientific research / research community can effectively contribute to the improvement of international negotiation, climate policies and social perception and identify the unique characteristics of Japan and UK.
3. Share our research results and promote discussion on potential solutions to climate change issues to encourage the interdisciplinary cooperation among researchers in IR3S and Tyndall Centre and,
4. Promote the intergenerational discussion on challenges for global sustainability among senior researchers, young researchers and students.

In order to accomplish the above mentioned objectives, the conference will organize several short sessions as follows.

- Keynote speech
- Dialogues / Parallel workshops
 - Sectoral issues : Mitigation, Adaptation, Scenario Assessment
 - Horizontal reviews : Integrated Approach, Governance, Human Resources Development
- Panel Discussion : - Future Collaborations
- Student Forum (organized by students)

The keynote speech will announce the goals of this symposium. Participants from each institution pertaining to specific academic fields related to Low Carbon Society discuss in dialogue sessions and in the first round of parallel workshops with researchers in the same/similar academic field to compare the features of each country. The second round of the parallel workshops focuses on the research frameworks toward global sustainability. In the panel discussion, the discussions in all the prior sessions will be concluded. The symposium includes workshops organized by the students themselves.

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- Pathway toward low carbon society and global sustainability -

Detailed outline

March 2009

1. Background

Sustainability at the human, social and global levels is one of the most important ideas of the 21st century. In addition to urgent social issues such as poverty alleviation and development, climate change has a wide range of interrelated impacts on human, social and global sustainability. Climate change is now a representative issue of global sustainability, which encompasses a broad range of complex issues which are subject matters of both fundamental and applied research. Recognizing the release of the IPCC Fourth Assessment Report (AR4), and the activated international discussions and activities, we need more cooperation and integrated efforts. Knowledge structuring and integrated approaches are required to obtain a comprehensive view and to achieve a low-carbon society (LCS), in which energy is derived from clean sources, leading to drastic reductions in greenhouse gas emissions.

Researchers also need to respond to these rapid and dynamic changes to provide timely solutions to problems. Bearing in mind that these problems are interrelated, however, research approaches need to change and also evolve together through interdisciplinary approach. In light of the broadness and comprehensiveness of the issues at hand, we believe such undertakings can be accomplished only through extensive collaboration between cutting-edge research institutes in the field. This recognition has been endorsed in the G8 University Summit held at Sapporo in July 2008.

(The declaration can be seen at the web site: <http://g8u-summit.jp/english/ssd/>)

2. Aims of the Symposium

The IR3S and Tyndall Centre for Climate Change Research already have knowledge and have contributed to research on climate change, building their own networks. Active communication between those networks in different fields and linkage of knowledge and experience are effective in mobilizing individual studies into action for integration. Also, it is vital that we develop a coherent global sustainability strategy with not only the vision of a low-carbon society but also to accomplish other related objectives. This type of activity will lead to a new vision for sustainable society.

This symposium aims to make international, interdisciplinary and intergenerational contributions to global sustainability with a central focus on Low Carbon Society and discuss how to design integrating frameworks through the cooperation of IR3S and Tyndall Centre.

The conference has four primary objectives:

1. Review and discuss the current status of the research activities, goals and policies of the research networks with special reference to the respective characteristics and future challenges, in order to promote mutual understanding between the networks,
2. Discuss how scientific research / research community can effectively contribute to the improvement of international negotiation, climate policies and social perception and identify the unique features of Japan and UK.
3. Share our research results and promote discussion on potential solutions to climate change issues to encourage the interdisciplinary cooperation among researchers in IR3S, the network for sustainability science, and Tyndall Centre, the network for climate change research. This cooperation can be

effectively enhanced through initiatives such as student exchange, faculty exchange and joint research projects and,

4. Promote the intergenerational discussion on challenges for global sustainability among senior professors, young researchers and students.

In order to accomplish the above mentioned objectives, the conference will organize several short sessions as follows.

Keynote speech

Session 3 : Introduction of concepts

Dialogues / Parallel workshops

Session 1,2 :Sectoral issues - Mitigation, Adaptation, Scenario Assessment

Session 4,5 :Horizontal reviews - Integrated Approach, Governance and Activities, Networks

Panel Discussion

Session 6 : The future collaboration leading to low carbon society and global sustainability

Student Forum (organized by students)

Day 3 : Students' view of "Pathway toward low carbon society and global sustainability"

Products of the Symposium

The presentation materials will be made openly available through the web site of IR3S. The conference report will be published subsequently.

Participants

50 - 100 participants including around 25 participants (15 researchers/staffs and 10 students) from IR3S.

Professors will provide speeches to convey their knowledge to the next generation researchers and will also conduct sessions as chairpersons.

More than 20 researchers will attend to present the issues in their own fields and discuss the linkage with other fields. They are also supposed to present their opinions for future collaboration.

Students (more than 10 from each country) will report and discuss on the topics discussed in this forum and express their own opinions on the necessity of international, interdisciplinary and intergenerational communications.

3. Program

This joint symposium will be organized by the co-coordinators; Kazuhiko Takeuchi and Kevin Andersons with the help/assistance of Todai and UEA coordinators and coordinating assistants. The conference will comprise keynote speeches, 2 dialogues, 2 parallel workshops sessions, a panel discussion and student forum related to Low Carbon Society and Global Sustainability.

3-1. Keynote speech

The keynote speech will announce the goals of this symposium.

3-2. Dialogues / Parallel Workshops

In each dialogue session, 4 researchers from IR3S or Tyndall Centre will introduce current research activities and exchange opinions on challenges. Scientific knowledge to contribute to climate change issues will be introduced. Each speaker is expected to suggest how the research in their different fields

will help the transition to “low carbon society”. It will also be considered how the various networks can establish complementary, mutually-beneficial relationships. Discussions will therefore include how to set up appropriate organizational and institutional frameworks in which the international alliance will function effectively, so that the benefits of collaborative activities will flow back to the original networks.

In each parallel workshop session, co-chair persons from both IR3S and Tyndall Centre will coordinate this 2-hour-workshop. At least 5 researchers will join as presenters with 10-minute-presentation covering the presentation points below. All participants are welcome to join the discussion.

Presentation points

- Review on the current status of the research activities
- Necessity/not of interdisciplinary beyond the broader of their own research fields.
- Future framework related to their own fields and issues on Climate Change and Sustainability.

We will have two sets of dialogue and parallel workshop sessions covering different aspects. The tentative themes as follows were proposed by Todai concerning the diversity and the features of IR3S and Tyndall Centre. Note that the speakers and the chairs will determine the specific titles in the future.

Proposed areas/possible agenda for Dialogue and Parallel workshops sessions

(A) Session 1, 2 “Researches and challenges towards Low Carbon Society”
Sectoral issues: Mitigation, Adaptation, Scenario Assessment

Concerning the framework of research in each of the selected topics, participants from each institution pertaining to specific academic fields related to Low Carbon Society discuss in dialogue session and in the first round of parallel workshops with researchers in the same/similar academic field to compare the features of each country. Tentative topics are mentioned below.

- **Mitigation**

Discuss on the engineering/economic aspects and the CO₂ emission reduction/ climate change mitigation potential of selected technologies, the associated problems in implementation of the process and the concrete case studies in Japan or UK.

- **Adaptation**

There are some plans for adaptation in the local level in UK. At the same time, sectoral quantitative forecasts of influence of global warming are studied in Japan. Concerning to the international supports to the adaptation issues, we will discuss on “How to deal with uncertainty of climate change forecasting?” and “What kind of supports are needed”

- **Scenario**

Comparing the ambitious CO₂ reduction plan and outlook in UK and 70% reduction scenario and middle range CO₂ reduction target in Japan, we will discuss on the issues with the aspects of the target they have discussed, the way of simulation, scenario analysis and social science. The following questions will be addressed: “What are the differences between the advanced plans in Japan and UK?” “What is possible pathway toward Low Carbon Society?”

(B) Session 4, 5 “Instruments or research framework toward sustainable society”
Horizontal reviews: Integrated Approach, Governance and Activities, Networks
Dialogue speakers: Dr. Aoyagi et al.

The second round of the parallel workshops focuses on the research frameworks toward global sustainability. Tentative themes are mentioned below.

- Integrated Approach (Future vision with scientific knowledge will be one of the issues)

- Activities to achieve low carbon society (the aspect of governance will be included)
- Network of researchers (IPCC framework for example)

All the speakers will be asked to join these parallel workshops.

- **Integrated Approach**

With regards to the engineering/economic aspects and the CO₂ emission reduction/ climate change mitigation potential (quantitative) of selected technologies and the feasibility (qualitative) of the set reduction targets, it is necessary to discuss the possibility of integrated approaches towards low carbon society, resource-circulating society and natural-harmonious society.

- **Governance**

Discuss how to ensure pragmatic decision making leading to CO₂ emission reduction with reference to real projects.

- **HRD: Human Resources Development**

Discuss about human resources development including the sustainable education and the future collaboration among researchers / research institutes.

3-3. Panel Discussion - Future Collaborations

In the panel discussion, the discussions in all the prior sessions will be concluded. The chairpersons will report the ideas discussed in each parallel session. They will discuss on “future collaborations” for Global sustainability.

3-4. Student Forum

It is noted that sustainability science should be incorporated in educational programs that equip the younger generation with leadership skills, management capabilities and the broad knowledge needed to prevent and solve problems that hinder progress toward sustainability. With this goal in mind, the symposium includes workshops organized by the students themselves to facilitate discussion between senior and younger participants. “Sus+” a students group in Todai and students group in CRed will initiate this forum. All participants are welcome to join. The senior researchers are requested to encourage the students by joining these sessions.

4. Speakers / Chairs of Sessions (Tentative)

Co-coordinators

[Tyndall] Kevin Anderson, Director of Tyndall Centre
[IR3S] Kazuhiko Takeuchi, Deputy Executive Director of IR3S

Keynote Speech

Hiroshi Komiyama, President Emeritus of Todai, Former Executive Director of IR3S

Chair of Dialogue

UK ??
Jp Nobuo Mimura, Professor, Center for Water Environment Studies, Ibaraki Univ.
UK ??
Jp Keisuke Hanaki, Professor, Department of Urban Engineering, Todai

Dialogue

UK Trevor Davies, Pro-Vice-Chancellor for Research & Knowledge Transfer, UEA
UK Jacquie Burgess, Professor of Environmental Risk and Head of School, UEA
UK Jim Skea, Professor, University of Oxford
UK Peter Guthrie, Professor, Head of the Centre for Sustainable Development, Univ. of Cambridge
Jp Kazuhiro Ueta, Professor, Graduate School of Global Environmental Studies, Kyoto Univ.
Jp Midori Aoyagi, Associate Professor, NIES / Todai
Jp Akimasa Sumi, Director of IR3S / Todai
Jp ??

Chair of Workshops

Mitigation

UK Kevin Anderson, Director of Tyndall Centre
Jp Akimasa Sumi, Director of IR3S / Todai

Adaptation

UK Neil Adger, Professor, Centre for Social and Economic Research in the Global Environment, UEA
Jp Srikantha Herath, UNU

Scenario

UK Rachel Warren, Dr, UEA
Jp Junichi Fujino, Dr, National Institute for Environmental Studies.

Integrated Approach

UK Alex Haxeltine, Dr, UEA
Jp Kazuhiko Takeuchi, Deputy Executive Director of IR3S

Governance

UK Peter Newell, Professor, School of International Development, UEA
Jp Hideaki Shiroyama, Professor, Graduate School of Public Policy, Todai

Networks

UK Andrew Watkinson, Professor, Director of the Living With Environmental Change Programme
Jp Noriyuki Tanaka, Professor, Hokkaido University

Final remarks

UK Michael Grubb, Professor, University of Cambridge
Jp ??

Keynote on Students Forum

UK Robert J Nicholls, Professor, University of Southampton
Jp Nobuo Mimura, Professor, Center for Water Environment Studies, Ibaraki Univ.

5. Schedule

- By end of March: speakers/panel members and theme of each session to be fixed
- By beginig of April: preparation of aims and prospectus of parallel sessions and submission to the IR3S Secretariat
- By end of April: deadline for CV and abstract submission

6. Secretariat

[IR3S]

- Toshihiro Inoue (Dr.), Project Researcher, IR3S, the University of Tokyo (E-mail: inoue@ir3s.u-tokyo.ac.jp)
- Yumiko Aoyanagi (Ms.), the University of Tokyo (E-mail: aoyanagi@hq.unu.edu)

[Tyndall Centre]

- Asher Minns (Mr.), University of East Anglia (E-mail: a.minns@uea.ac.uk)
- Vanessa McGregor (Ms.), University of East Anglia (E-mail: V.McGregor@uea.ac.uk)

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Program (tentative) May 19 - 21, 2009 / University of East Anglia, UK

May 19, 2009			
9:00-12:00	Ice breaking session (includes lunch)		
12:00-	Registration		
13:00-13:30	Opening Remarks Kevin Anderson, Director of Tyndall / UEA / Univ. of Manchester Kazuhiko Takeuchi, Deputy Executive Director of IR3S / UNU / Todai		
13:30-15:30	Session 1 : Dialogue 4 keynote speakers (15 min presentations * 4+ Q and A)		
15:30-15:45	Coffee break		
15:45-17:45	Session 2 : 3 parallel workshops Discussion related to the issues of interdisciplinary in each theme		
	Theme 1 : Mitigation	Theme 2 : Adaptation	Theme 3 : Scenario Assessment
17:45-18:00	Closing address for the 1 st day		
18:00-	Poster Session		
19:00-	Reception Party (@UEA)		
May 20, 2009			
09:00-10:00	Session 3 : Keynote Speech (Introduction of concepts & structures) Hiroshi Komiyama, President Emeritus of Todai		
10:00-12:00	Session 4 : Dialogue 4 keynote speakers (15 min presentations * 4 + Q and A)		
12:00-13:00	Lunch break		
13:00-15:00	Session 5 : 3 parallel workshops Discussion related to the framework or research system with case studies		
	Theme A : Integrated Approach	Theme B : Governance	Theme C : HRD
15:00-15:30	Coffee break		
15:30-17:30	Session 6 : Panel Discussion - Future Collaborations Chair of each Parallel Sessions will report and discuss		
17:30-18:00	Closing address for the 2 nd day		
18:30-20:30	Session 7 : Address for the future collaborations Include light dinner @??		
May 21, 2009 Student Forum			
09:00-11:00	Parallel Workshops with Poster Presentation		
11:00-12:00	Panel Discussion with Senior Professors and Students		
12:00-13:00	Lunch Break		
13:00-15:00	Parallel Workshops - Future Collaborations -		
15:00-15:30	Coffee Break		
15:30-17:30	Panel Discussion		
17:30-18:00	Closing Remarks		

* The University of Tokyo is abbreviated in Japanese as Todai

* Colored lines are organized by the students.