


Lessons from the Japan-UK Low Carbon Societies Research Project

1. If we cannot go to LCS,...
2. LCS offers higher QOL with less energy demand and lower-carbon energy supply
3. LCS needs good design, early action, and innovations




Designed by Hajime Sakai

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TOWARDS A LOW CARBON SOCIETY,
LCS-RNet & ICLCS RT and ISAP, IGES, Hayama, Japan, 26 June 2009

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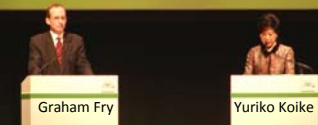


Japan-UK Joint Research Project

Sustainable Low-Carbon Societies (LCSs)
(Co-chairs : Shuzo Nishioka(NIES) and Jim Skea(UKERC))


In 2006, the Governments of Japan and UK established an innovative joint research project with participation from a diverse group of some 20 countries including most G8+5 countries, Asian countries (Australia, Korea, Thailand, Nepal, Malaysia, Indonesia), African countries, and others.

■ **Launch of the Project : 16th Feb 2006** (Anniversary of Kyoto Protocol)



Former Japanese Environment Minister Yuriko Koike and UK Ambassador to Japan Sir. Graham Fry announced the launch of the joint research of the Low-Carbon Society.




■ **1st Workshop: June 2006**
Developing Visions for a LCS through Sustainable Development



WS: 19 countries, 54 experts
Symposium: around 500 people

- A long-term perspective focusing on the need for urgent action to reduce CO₂ towards 2050.
- Achievement of LCS will involve the development and deployment of low carbon technologies, changes in lifestyles and institutions, and need to align with 2 sustainable development.

Tokyo

<p>■ 2nd Workshop: June 2007 Achieving a Sustainable LCS</p>		
 <p>London 30 countries, 100 participants</p>	<ul style="list-style-type: none"> ● A wide range of stakeholders- from government, business, and civil society need to be engaged in finding solutions. ● A significant share of GHG is due to cities. Effective Action can be and is being undertaken. 	
<p>■ 3rd Workshop: Feb 2008 Roadmap to Low Carbon World</p>		
<p>Tokyo</p>  <p>WS: 18 countries, 79 experts Symposium: 273 participants</p>	<ul style="list-style-type: none"> ● Creation of appropriate incentives for business using long-term policy signals to strengthen carbon pricing. ● Expanding financial flows, international cooperation in low-carbon approaches. ● Building trust between countries and stakeholders though enhancement of communication is important. <p>"Call for Action" and WS3 "Executive Summary" were delivered to G20 in Chiba, March 14-16 2008.</p>	
<p>G8 Gleneagles 2005</p>		<p>G8 Environmental Ministerial Meeting, May 2008 G8 Japan, July 2008</p>

ROADMAP TO A LOW CARBON WORLD

低炭素世界への道筋

**Third Symposium of the
Japan-UK Research Project on
Low Carbon Societies (LCS)**


第3回日英低炭素社会研究プロジェクト会合

Shuzo Nishioka, Advisor, NIES
国立環境研究所 参与 西岡秀三

Jim Skea, Research Director, UKERC
英国エネルギー研究センター 研究理事 ジム・スキー

15 February 2008

Hotel Metropolitan Edmont, Iidabashi, Tokyo



LCS PROJECT: OBJECTIVES (1)

低炭素社会プロジェクトの目的

- Identifying and understanding the necessity for deep cuts in greenhouse gas (GHG) emissions toward 2050
- 2050年までに温室効果ガスの大幅削減が必要なことを認識し理解する
- Reviewing country-level GHG emissions scenario studies in developed and developing countries.
- 先進国および途上国で進められている国別の温室効果ガス排出量シナリオについてレビューする
- Formulating win-win strategies to align sustainable development and climate objectives
- 持続可能な発展と温暖化対策が両立するようなWin-Winな戦略を作る



LCS PROJECT: OBJECTIVES (2)

低炭素社会プロジェクトの目的

- Studying methodologies to achieve LCS – visions, pathways, modelling, financial mechanisms
- 低炭素社会を実現する手法を研究する:ビジョン、道筋、モデル化、金融メカニズムを対象に
- Identifying gaps between goals and the current reality
- 目指すべきゴールと現状のズレを認識する
- Sharing best practices and information; identifying opportunities for cooperation
- 優良事例や優れた情報を共有する:協力する機会を見つけ出す



WHAT IS A LOW CARBON SOCIETY? (1)

低炭素社会とは？

- Takes actions that are compatible with the principles of sustainable development, ensuring that the development needs of all groups within society are met
- 社会のあらゆる層が必要とする発展を確かにしながら、持続可能な発展の原則に合った行動をとる。
- Makes an equitable contribution towards the global effort to stabilise atmospheric concentration of carbon dioxide and other greenhouse gases at a level that will avoid dangerous climate change through deep cuts in global emissions
- 大気中の温室効果ガス濃度を、気候変動による危機的な状態から回避するレベルに安定化させるための、等しい貢献を行う。



WHAT IS A LOW CARBON SOCIETY? (2)

低炭素社会とは？

- Demonstrates high levels of energy efficiency and uses low carbon energy sources and production technologies
- エネルギー効率をさらに高められることを示す。低炭素なエネルギー資源・低炭素な製造技術を使う。
- Adopts patterns of consumption and behaviour that are consistent with low level of greenhouse gas emissions
- 温室効果ガス排出の少ない消費／行動様式にする。



LOW CARBON SOCIETY TIMELINE

今までの経緯

- February 2006 – announced by Environment Minister Yuriko Koike and British Ambassador Graham Fry in Tokyo [2006年2月 立ち上げ]
- June 2006: *First* Low Carbon Society Symposium and Workshop, Tokyo [2006年6月 第1回会合]
- December 2006: Low Carbon Society Modelling Workshop, Oxford [2006年12月 モデル会合]
- June 2007: *Second* Low Carbon Society Symposium and Workshop, London [2007年6月 第2回会合]
- February 2008: *Third* Low Carbon Society Symposium and Workshop, Tokyo [2008年2月 第3回会合(これ)]



THE LCS PROJECT NARRATIVE

今までの会合の概要

- Workshop 1
 - Why do we need low carbon societies? なぜ必要?
 - Can they be achieved? どうすればできる?
 - Are they compatible with sustainable development? 持続可能な発展と両立する?
- Workshop 2
 - What are the options for achieving low carbon societies (concrete examples)? どんな方法がある? 具体例は?
 - What needs to be done? 何をやる必要がある?
- Workshop 3
 - Key findings and policy recommendations 主要な検討結果と政策への提言
 - Dialogue with stakeholders 関わりの深い人たちとの対話



CONCLUSIONS: WORKSHOP 1 (2006年6月)

- Climate change represents a significant threat. Urgent action is needed to reduce global GHG emissions significantly. 気候変動は深刻で速やかな排出量の削減が必要
- Deep cuts in GHG emissions by 2050 are technically and economically feasible – as much as 60-80 per cent in developed countries. 大幅な削減は技術的にも経済的にも可能
- The costs of transitioning to low-carbon societies are far less than costs associated with inaction. 対策のコストはやらない場合の気候影響による損害コストよりずっと安い
- A wide range of stakeholders – from government, business and civil society need to be engaged in finding solutions. 政府、ビジネス、市民など関わりの深い人たちが一緒に解決策を見つけることが大事
- Creating visions of low-carbon societies can help to educate and motivate people and organisations. ビジョンを作ることで人々や組織をより低炭素社会になるように教育、動機付けすることを手助けできる



CONCLUSIONS: WORKSHOP 2 (2007年6月)

- we need bold and innovative measures: 強力で革新的な対策が必要
 - long-term policy signals 長期を見通した政策シグナル
 - enhanced RD&D 研究・開発・普及
 - mobilising investment resources for developing countries 特に途上国への投資が行われやすくする
 - co-benefits and sustainable development コベネと持続可能な開発
- changes in human behaviour and lifestyle can contribute to low-carbon societies. 人々の行動と生活様式を変える
- existing technologies can make a major contribution but emerging technologies will also contribute in the medium to long term. 既存の技術も重要、開発中の技術で中長期的な大幅削減が可能に
- a significant share of GHG emissions is due to cities - effective action is possible 排出量の多くは都市から - 効果的な対策が可能



KEY THEMES FOR THE THIRD SYMPOSIUM 第3回会合の主なトピック

- Behaviour 個人のライフスタイルの変更とその影響
 - Behaviour change and its impact on delivering LCSs.
- Sustainable Development 持続可能な発展とLCSの両立
 - Aligning LCSs with sustainable development
- Investment LCSを実現する投資
 - Financing the transition to LCSs
- Opportunities and Barriers セクター別に見たときのLCSに向けた障壁とチャンス
 - Identifying possible negative impacts and impediments to achieving LCSs 起こりうるマイナスの影響と障害の認識
 - exploring ways of overcoming them それを克服する方法の探索



EXPECTED OUTPUTS 今回の会合のアウトプット(予定)

- Full Report of the 3rd Workshop
- Executive Summary of the 3rd Workshop
- Summary of Conclusions from the Workshop Series
- Report from 20 countries on Low-Carbon Society Scenarios
- Call for Action



Japan-UK Low Carbon Society Project

2050.nies.go.jp



Call for Action and Executive Summary are available on Japan LCS homepage (<http://2050.nies.go.jp>). These are input for G8 climate change discussions.



Chair's Summary G8 Environment Ministers Meeting Kobe, Japan May 24-26, 2008

*Transitioning to low-carbon societies and
establishing an **international research network**
on low-carbon societies*

5. To realize such long-term goals, it is necessary to change the current socio-economic structures and transition to low-carbon societies. In so doing, there was general recognition of the importance of all the countries to have a clear vision of low-carbon societies. Strong support for establishing an international research network of institutions involved in the research on low-carbon societies was shown by a number of countries, and other countries also expressed their support for the consideration of its establishment.

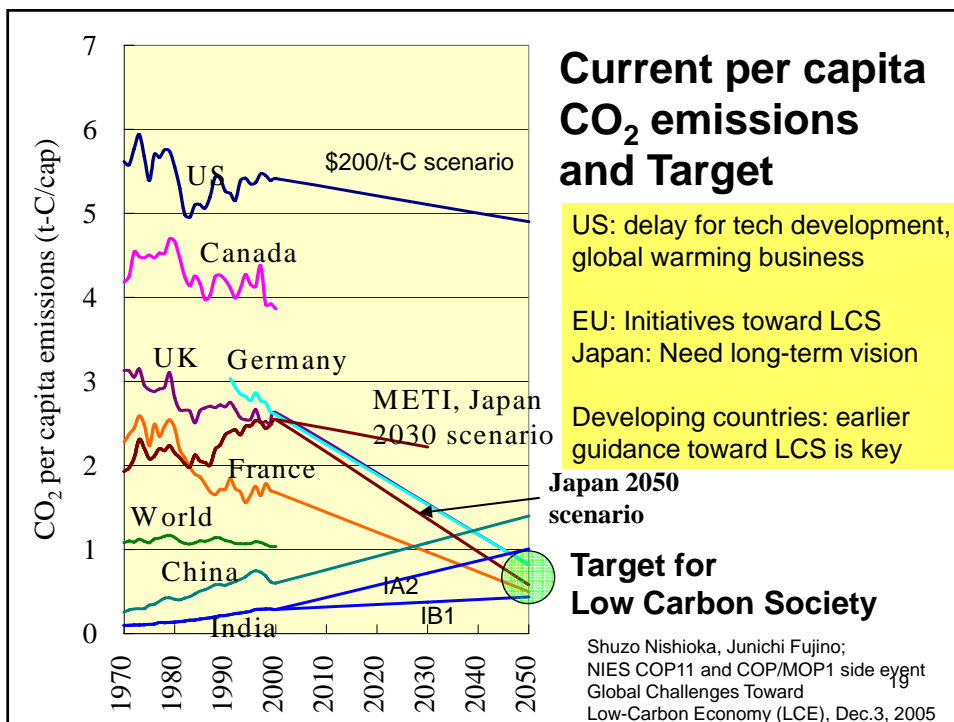


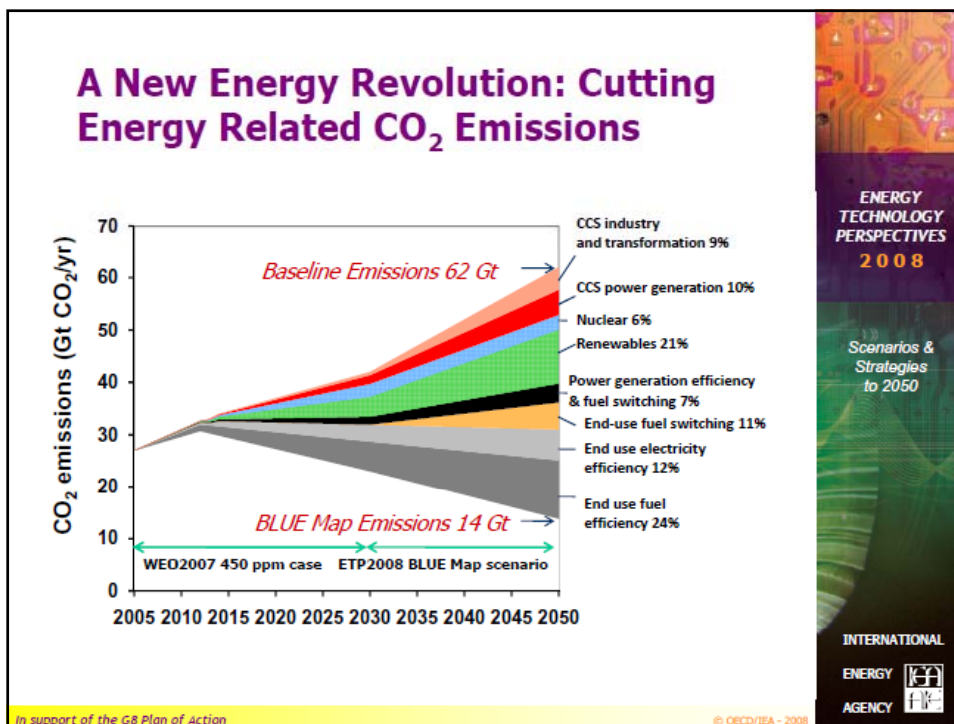
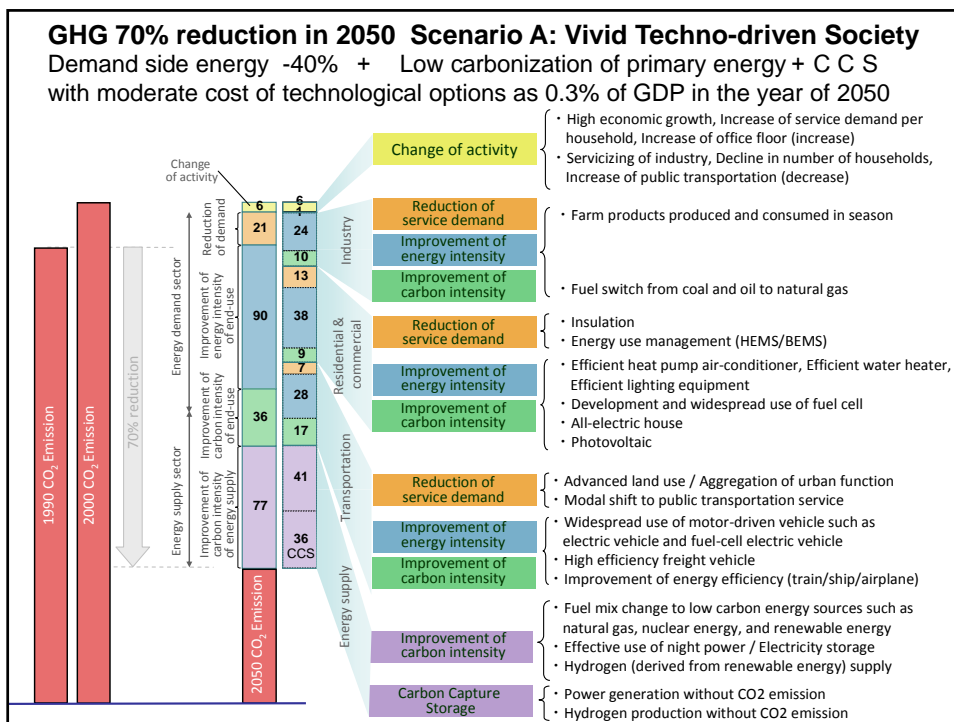
G8 Italy, 2009

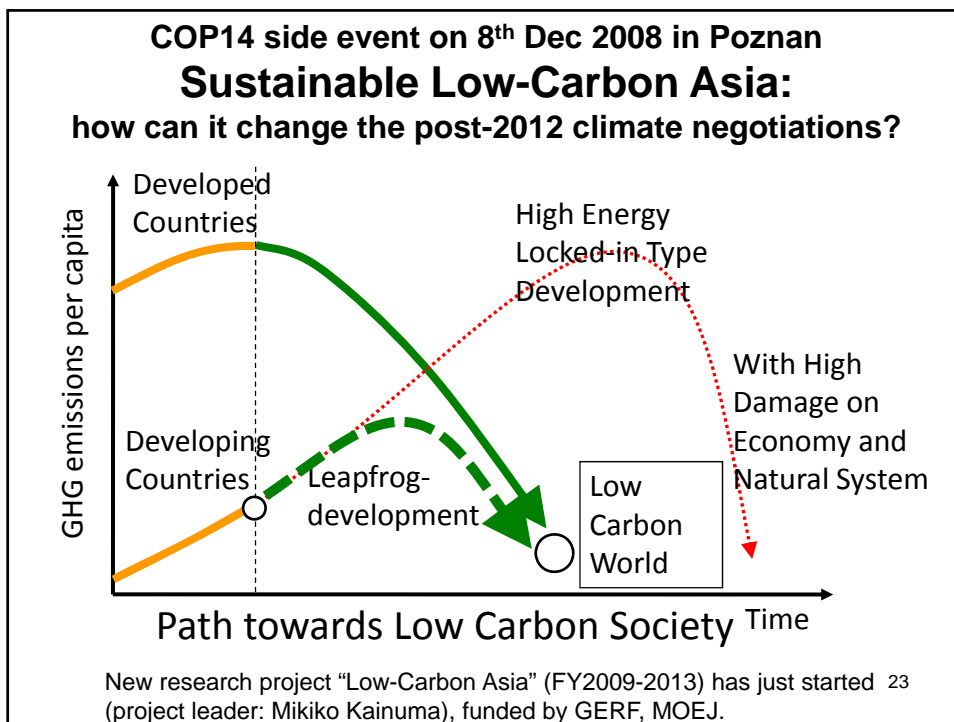
Summary of the G8 Program on July 8, 2008

(2) Environment and Climate Change

- (a) Prime Minister Fukuda stated at the beginning that this was a very important summit, one that should determine whether humanity can move toward a **low-carbon society**, severing its dependence on fossil fuels and addressing challenges including global warming and resource depletion countries.
- (b) Long-term Goal
With respect to the goal of achieving **at least 50% reduction of global emissions by 2050**, the G8 leaders agreed to seek to share and adopt it with all Parties to the United Nations Framework Convention on Climate Change.
- (c) Mid-term Goals
In order to achieve absolute emission reductions in all developed nations, G8 leaders agreed to implement ambitious economy-wide mid-term goals.
- (d) Sectoral Approach
- (e) Climate Investment Funds







G8 Japan Initiatives

LCS-Research Network

Linkages and interactions between research activities and policy processes for science-based policy making towards LCS

The diagram shows a central box labeled 'LCS-RNet' with arrows pointing to three groups: 'Researchers' (left), 'Other stakeholders' (bottom), and 'Policy-makers' (right). Each group is represented by an illustration: Researchers with a presentation, Other stakeholders with a factory and people, and Policy-makers with a globe and a building.

- Information exchange and research cooperation amongst research institutions of any CRS related fields,
- Dialogues with policy-makers, businesses, citizens and others to share possible visions on future LCS,
- Contribution to international political processes on climate change including the G8 process by providing research outcomes and recommendations.

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1st annual workshop will be held in Bologna Italy, 12-13 October 2009

LCS is not only to avoid dangerous climate change, but to...

- Avoid energy resource battles by using resources in efficient ways
- Develop many innovations to support global sustainable development
- Build safe and sound society considering appropriate land-use and city planning
- and ...

We need good scientific findings
to innovate systems to pledge
people's activities for LCS

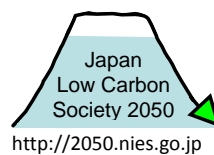
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**What gift can you provide
for our future?**



Christmas Concert of Yoko Fujino's
Piano Class on Dec 23, 2005

Discussions!



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