



低炭素アジア研究ネットワーク : LoCARNet
アジアの知恵を低炭素発展に結集する
Integrating Asian Wisdom: Low Carbon Asia Research Network

アジア低炭素発展への道 : Low Carbon Development in Asia Symposium

30 October 2012

Tokyo, Japan

西岡秀三 : Shuzo Nishioka

事務局長 : Secretary General, LCS-RNet / LoCARNet

地球環境戦略研究機関 (IGES)



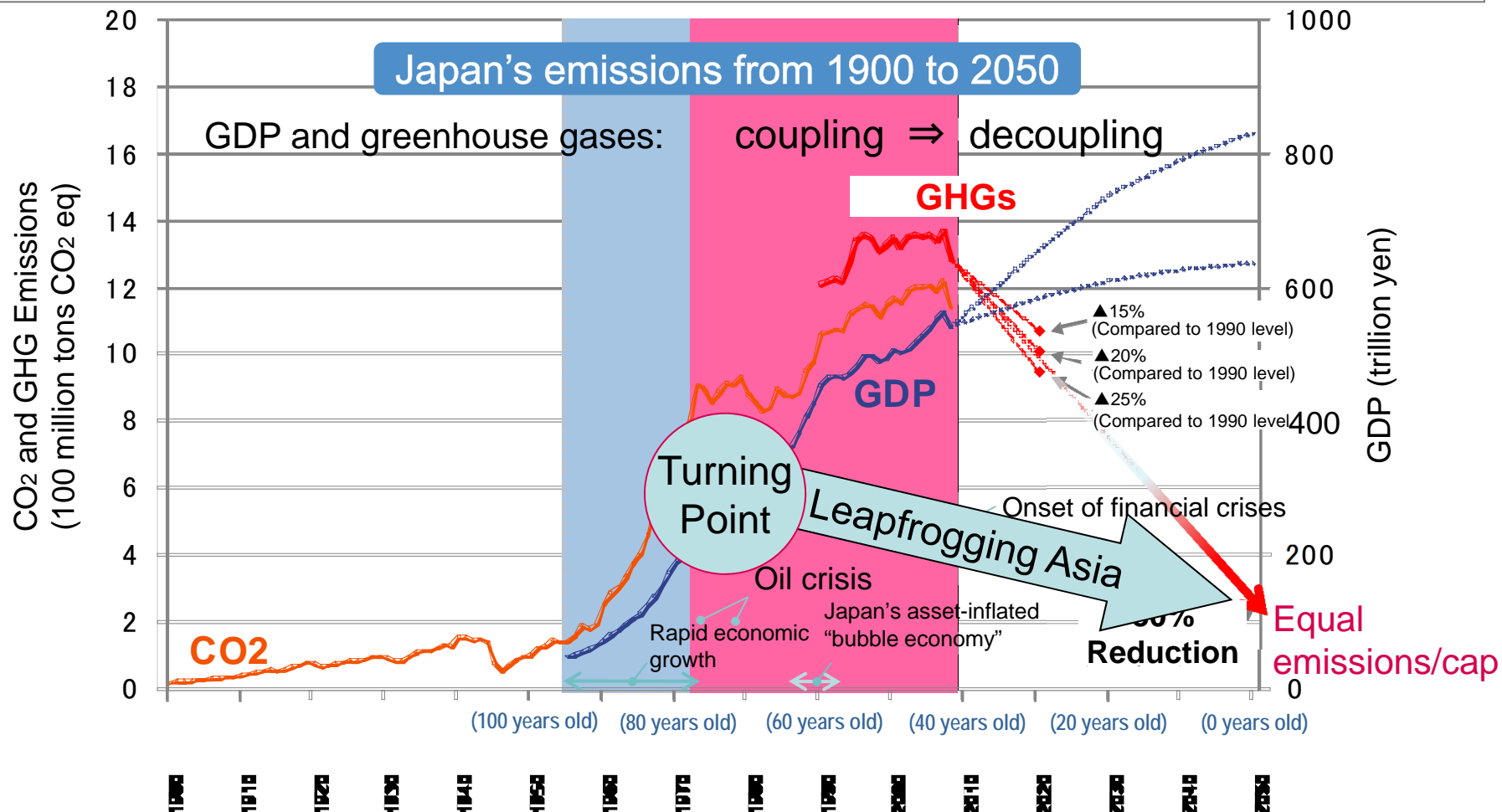
低炭素アジア発展研究ネットワーク Low Carbon Asia Research Network

アジアの低炭素発展に向けた科学的政策形成と実施に貢献する
研究者及び関係者の開かれたネットワーク

**An open network of research communities and stakeholders
that facilitates the formation and implementation of
science-based policies for low-carbon development
in the Asian region**

Japan struggling to emerge from an economy locked in to high carbon emissions

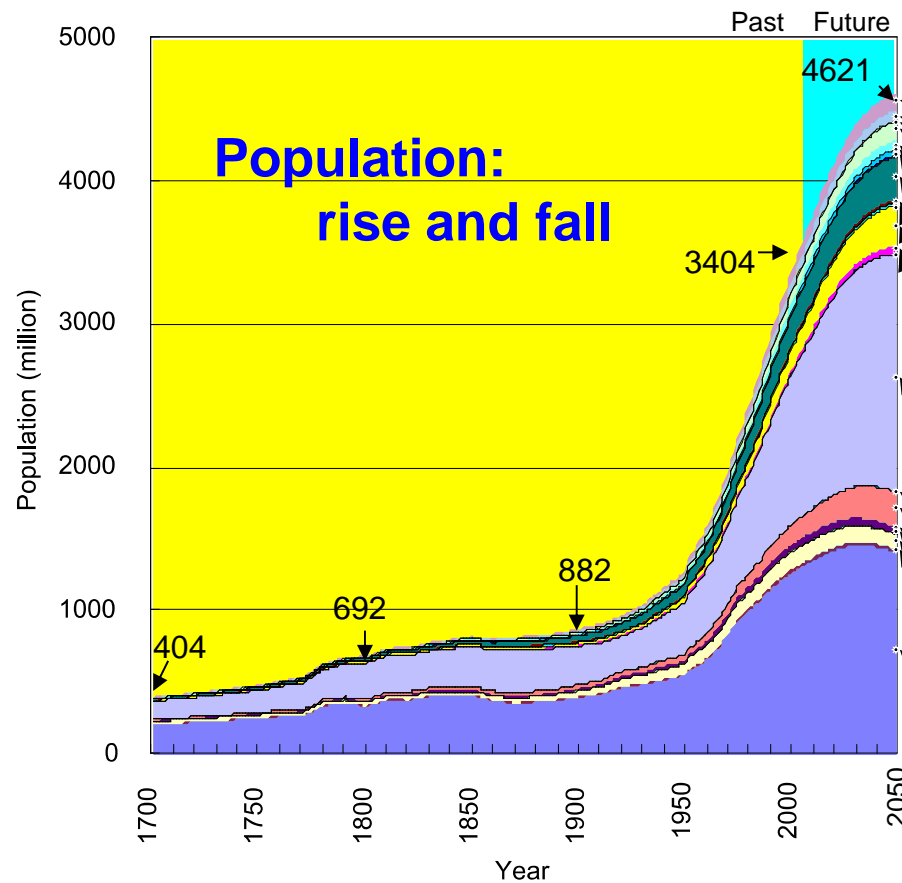
**GHG emission reductions of 80% by 2050:
An enormous transition towards an unexplored type of society**



Future GDP: Based on scenarios A and B from the NIES Low Carbon Society Research Project 2050

Asia 40 years into the future

Population explosion will cease except in the South Asia region, while some countries' populations will begin to shrink



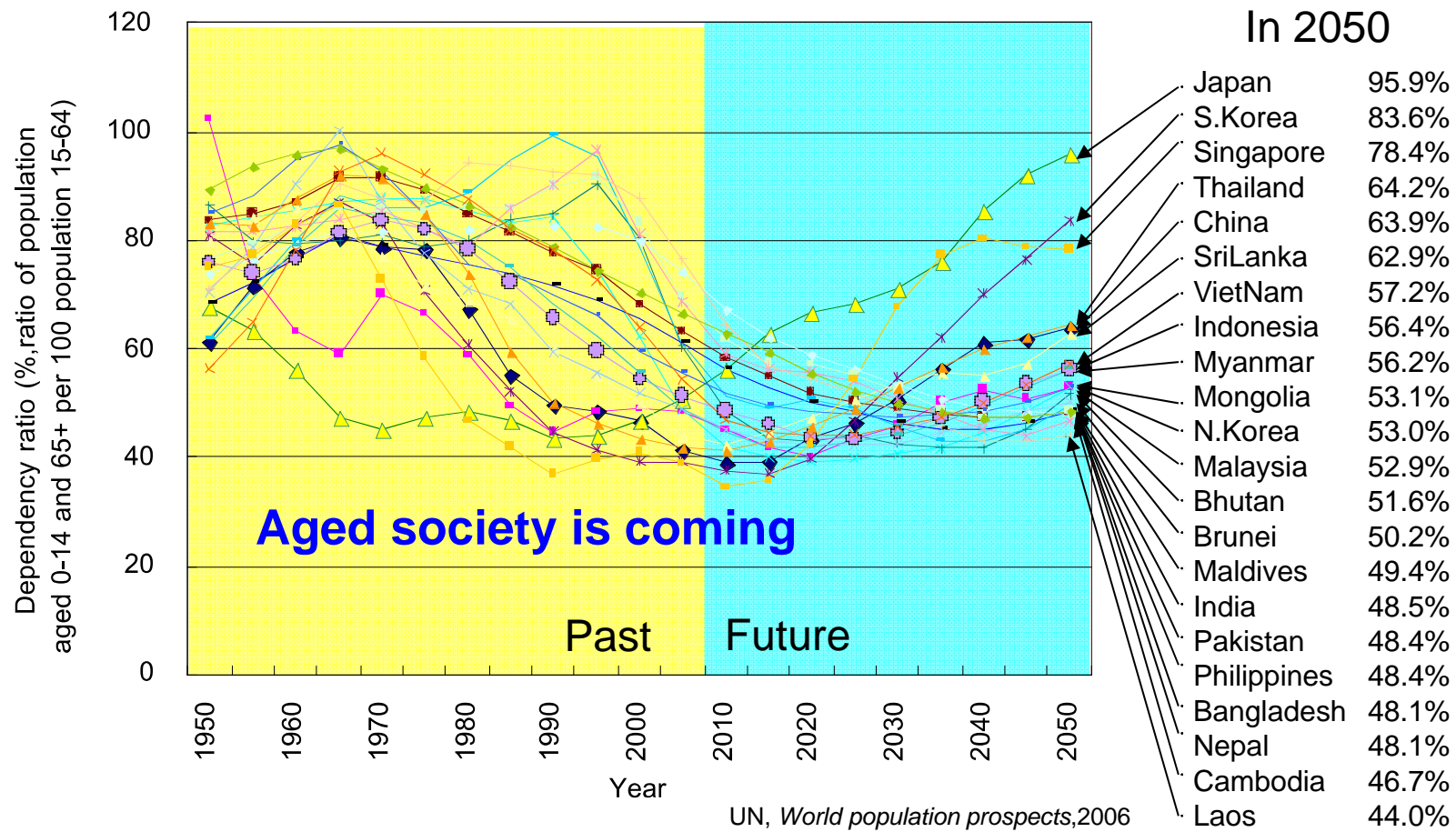
	2008	2050	ratio 2050/200	% in the region
VietNam	89,694	119,971	1.34	2.60
Thailand	64,732	67,376	1.04	1.46
Singapore	4,542	5,026	1.11	0.11
Philippines	91,332	140,466	1.54	3.04
Myanmar	49,640	58,709	1.18	1.27
Malaysia	27,476	39,631	1.44	0.86
Laos	6,068	9,290	1.53	0.20
Indonesia	237,002	296,885	1.25	6.42
Cambodia	14,957	25,114	1.68	0.54
Burunei	406	681	1.68	0.01
SriLanka	19,487	18,715	0.96	0.40
Pakistan	170,113	292,205	1.72	6.32
Nepal	29,325	51,891	1.77	1.12
Maldives	317	510	1.61	0.01
India	1,203,246	1,658,270	1.38	35.88
Bhutan	675	935	1.38	0.02
Bangladesh	163,970	254,084	1.55	5.50
S.Korea	48,538	42,327	0.87	0.92
Mongolia	2,680	3,388	1.26	0.07
Japan	127,868	102,511	0.80	2.22
N.Korea	23,941	24,666	1.03	0.53
China	1,343,933	1,408,846	1.05	30.48

(thousands)

Mitchell *International Historical Statistics* (2007)
and UN, *World population prospects* (2006)

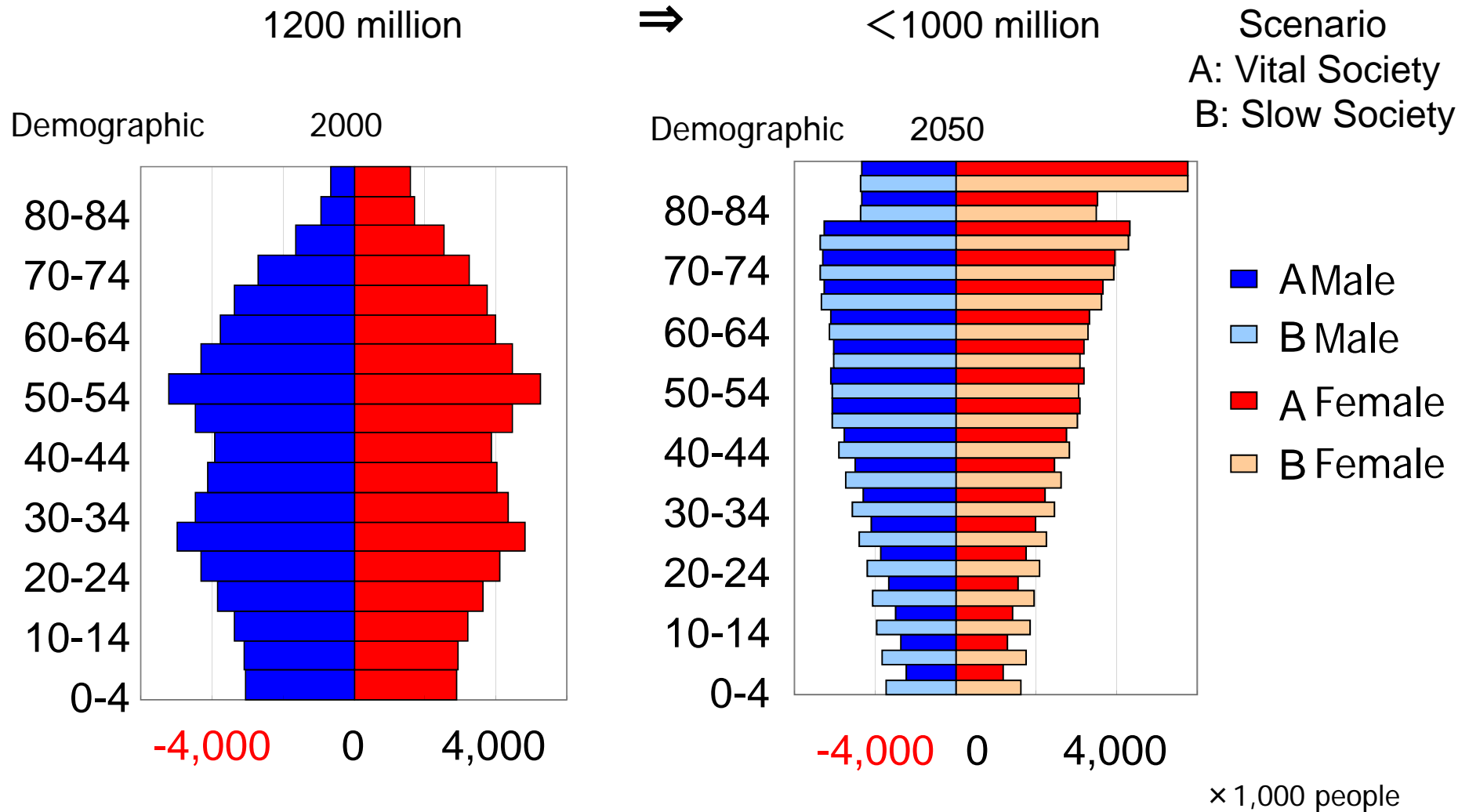
Asia 40 years into the future

Dependency ratios of population will change drastically over the next forty years

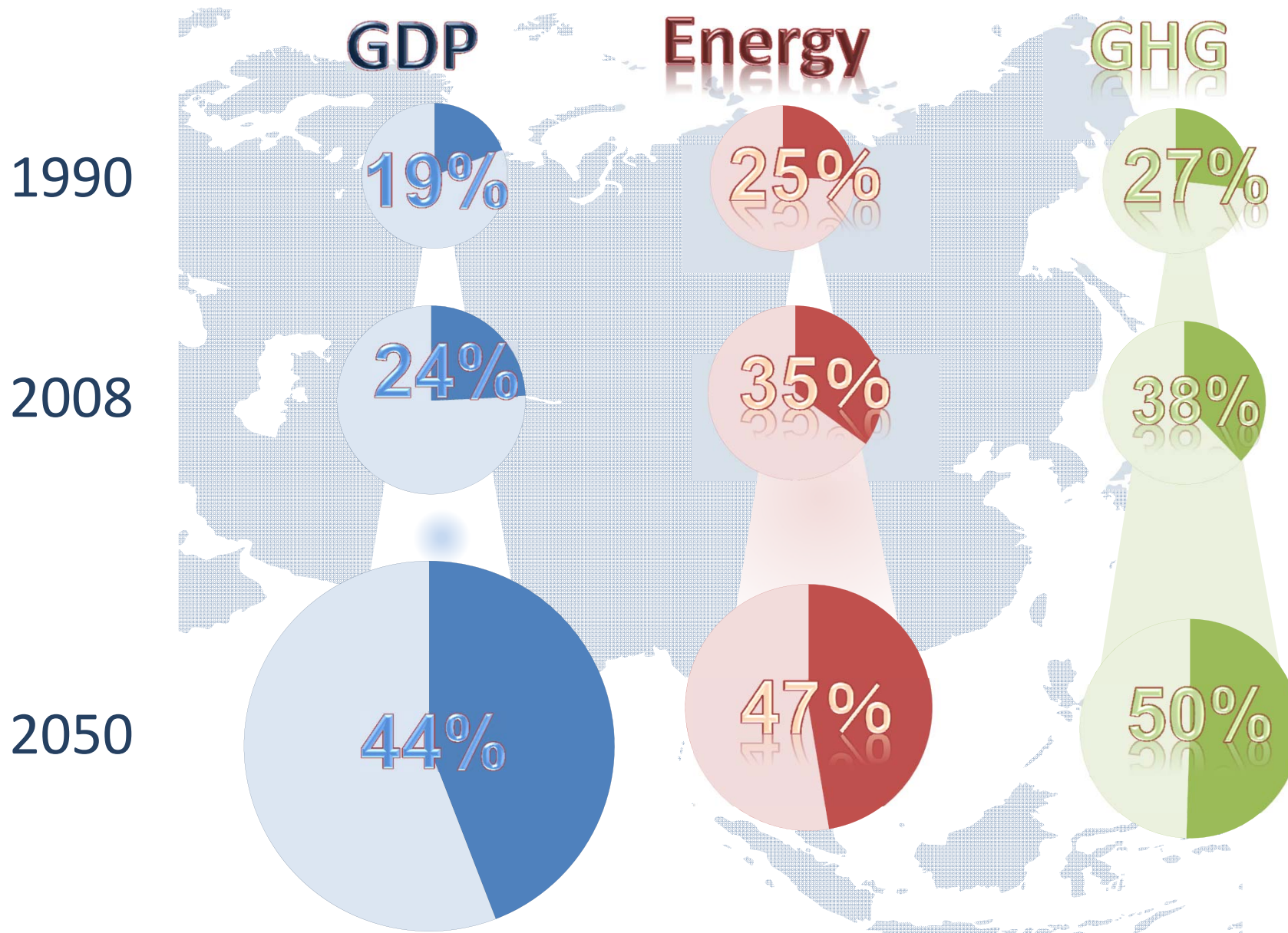


From Matsuoka, 2009

Japan as the global front runner of aging societies

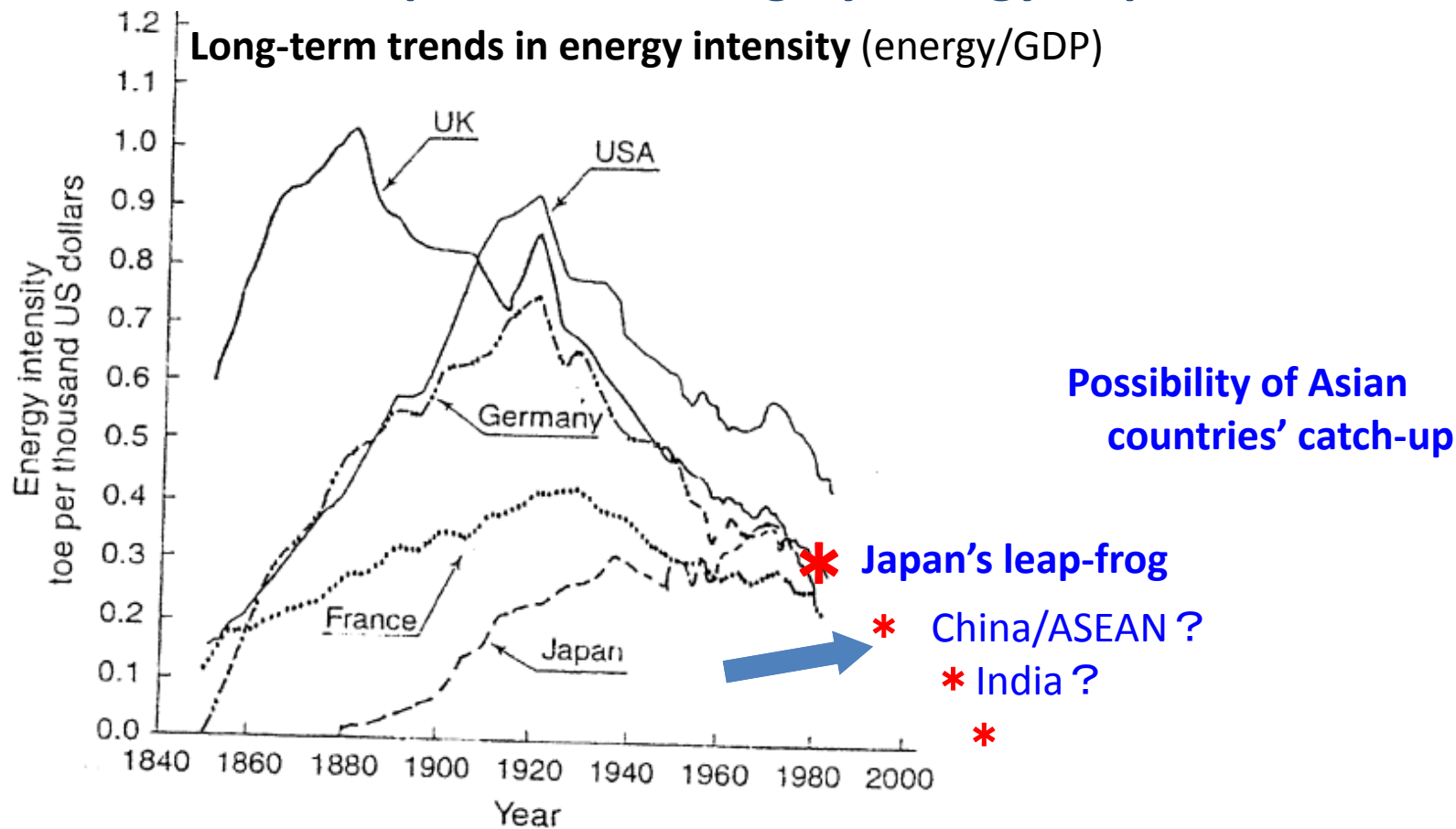


Growing importance of actions towards low-carbon development in Asia



Source: Presentation by Dr. Mikiko Kainuma (Nov. 2011)

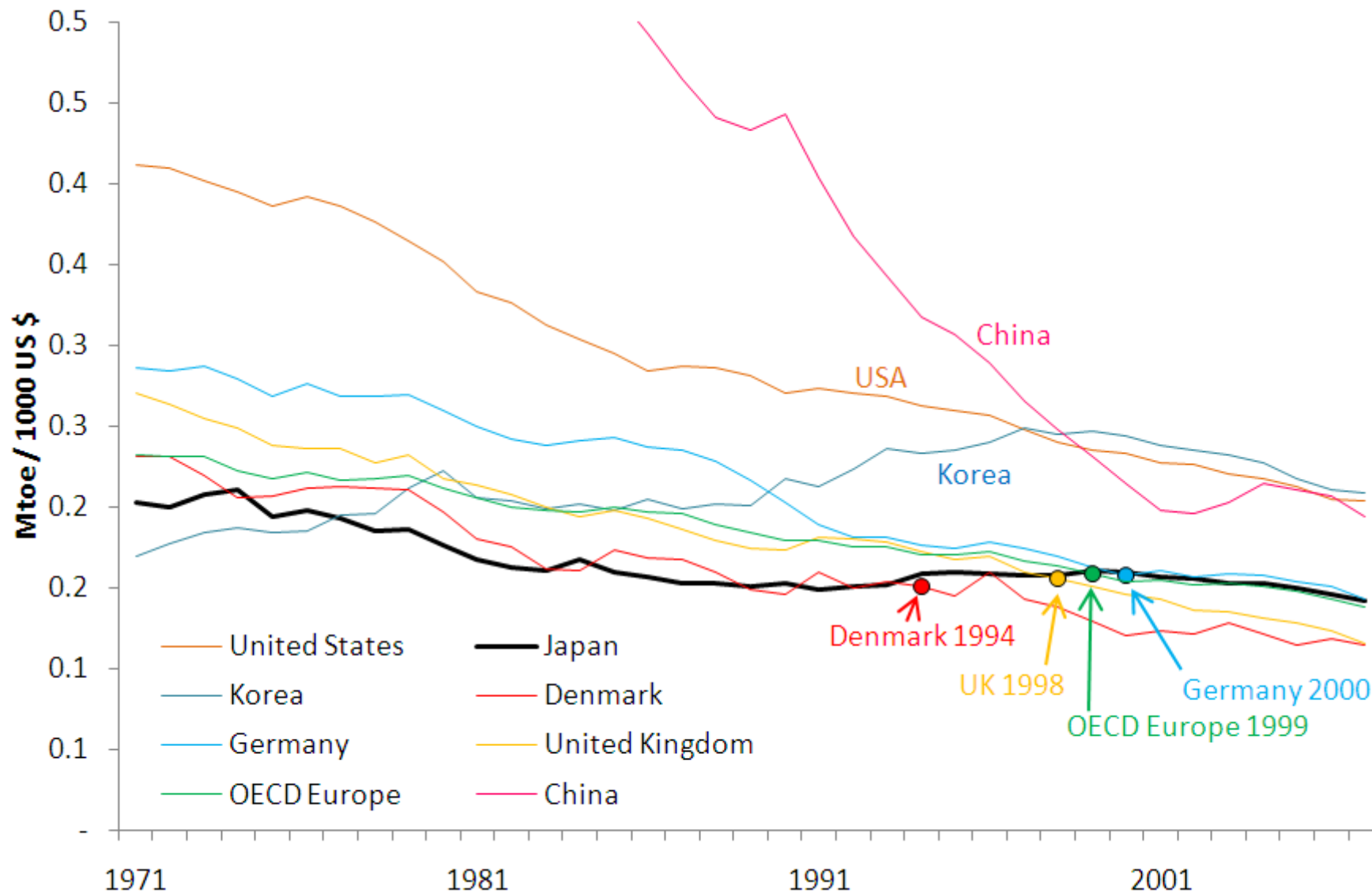
Opportunities for Asia: Freedom from past track of highly energy-dependent technologies



- How can we facilitate technological leap-frogging to promote low carbon development?
- What kinds of mechanisms (international/national, market/non market) could facilitate leap-frogging to low carbon technologies?

Japan delayed for low carbon technologies development and deployment?

Energy Intensity (ppp)



Original Data: IEA (2009) CO2 Emissions from Fuel Combustion - Highlights

Activities and Publications

Series of policy-research dialogue workshops on Asian Low Carbon Development



**A Low Carbon Asia:
From Malaysia to Asia
Dialogues between Policy-
Makers and Researchers:
Towards Implementation**
4-5 July 2011
Johore Bahr, Malaysia

**Policy Dialogue:
Sustainable and Low-Carbon
Development in Indonesia and Asia**
16-17 February 2010
Bogor, Indonesia

**Dialogue:
Transition towards
Low Carbon Societies
in Thailand and Asia**
17-18 November 2010
Bangkok, Thailand

**Cambodia workshop:
Scientific Approaches towards
Low Carbon Development in
Cambodia**
10 January 2011
Phnom Penh, Cambodia

**Stakeholder Dialogue:
Low Carbon
Development and
Research Need**
18-19 April 2011
Hanoi, Vietnam

Series of LCS-RNet G8 Annual Meetings

1st Annual Meeting
12-13 October 2009
Bologna, Italy

2nd Annual Meeting
Sept. 2010, Berlin,
Germany

3rd Annual Meeting
Oct. 2011, Paris,
France



アジア低炭素発展研究ネットワークの背景

Background of Low Carbon Asia Research Network

Aims to formulate and better enable the implementation of science-based policies for low-carbon development in Asia to facilitate the realisation of a low-carbon and sustainable society.

- 2006年からの国立環境研究所・京都大学を中心としたアジア低炭素社会研究と共同で、地球環境戦略研究機関はアジア各国で研究者と政策担当者との対話ワークショップを5回にわたって開催してきたが、その中で科学的政策決定には**研究者の参画**が強められねばならないことが共通認識となった。
- In collaboration with NIES/Kyoto Univ's Low Carbon Asia research project, IGES hosted several workshops in Asian countries, and the growing importance of **role of regional research community** was strongly recognised.
- この認識の下に2011年10月、プノンペンでの**ASEAN+3環境大臣会合**で、**LoCARNet** 構想が日本から提案された。

Based on this recognition, Japanese Government proposed the establishment of **LoCARNet** at **ASEAN+3 EMM** held in October 2011 in Phnom Penh.

- 2012年4月日本国政府が開催した東アジア低炭素成長パートナーシップ会合で提案した多層な関係者が参加する「東アジア低炭素成長知識プラットフォーム」の一要素として**LoCARNet**が環境大臣によって発表された。At the “East Asia Low Carbon Growth Partnership Dialogue” on 15 April 2012, it was agreed to work towards establishing the “East Asia Knowledge Platform for Low Carbon Growth”, as an open, multi-layered, flexible all stakeholders’ network for sharing knowledge towards low-carbon growth in Asia. **LoCARNet** was recognized as one elements of it.

- 2012年7月横浜で、アジアの研究リーダーとIPCC, ADB, UNEPなど国際機関の代表がLoCARNetの運営について準備会合を開催した。

In September 2012 in Yokohama, Asian leading researchers with representatives of IPCC, ADB, UNEP, APN discussed on plan of activities of LoCARNet

- その結果は、2012年9月バンコクでの**ASEAN+3環境大臣会合**に報告された。

In September 2012 at ASEAN +3EMM in Bangkok, those activities were reported .

- 2012年10月 16-17日、LoCARNet **第1回年次会合**がバンコクで開催され、14ヶ国124人の研究者・政策担当者・国際機関関係者が参加し、研究の最先端を論議し、今後の活動を検討した。**次回会合**は2013年7月横で開催の予定

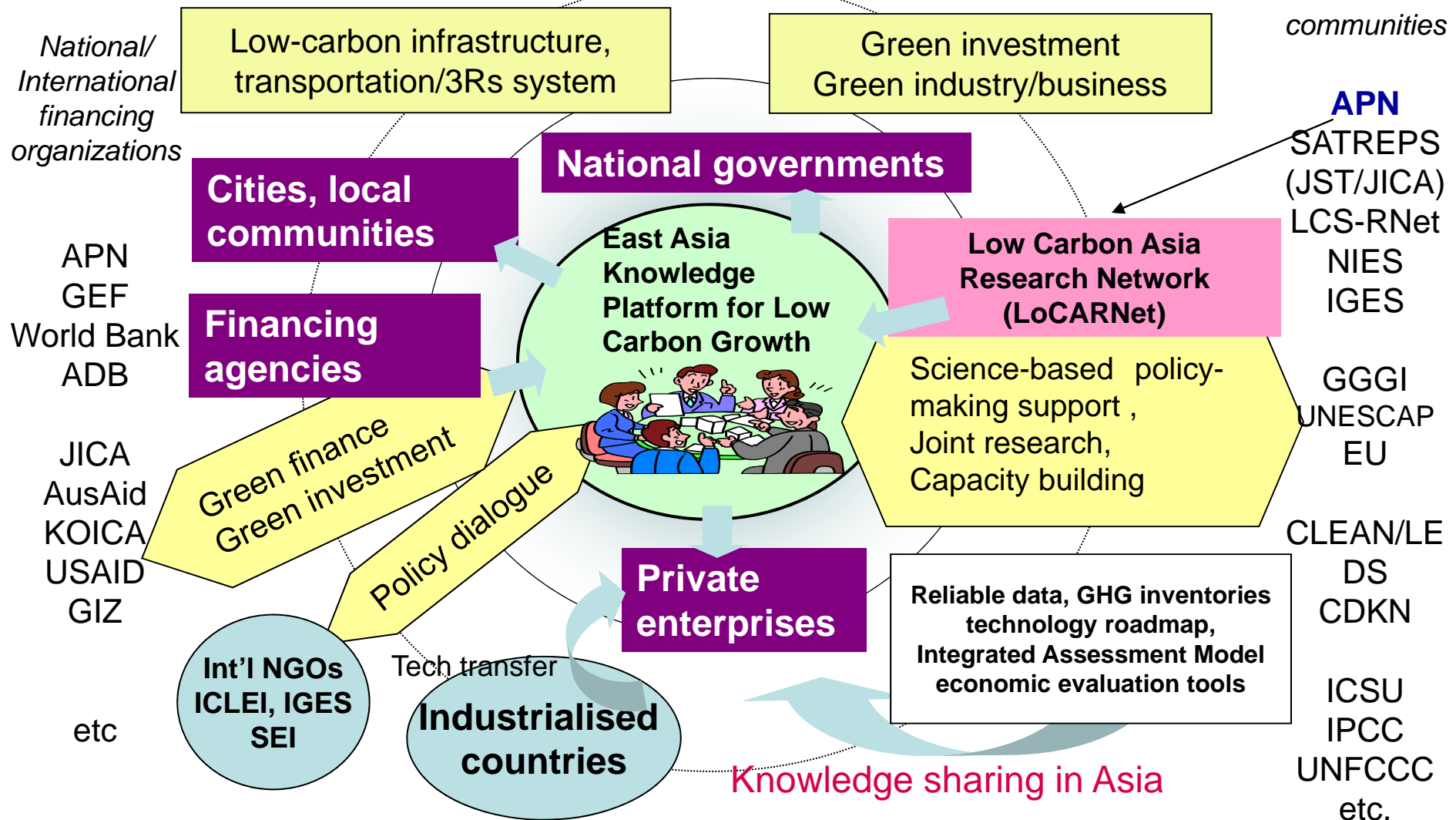
On October 16-17 in Bangkok, **LoCARNet First Annual Meeting** discussed the forefront of 7 major research areas with participation of 124 academic members and policy makers from 14countries’

Next meeting is tentatively planed to be held in July at Yokohama



LoCARNet: 低炭素発展知識交流プラットフォームの知恵袋 for the East Asia Knowledge Platform for Low-Carbon Growth*

International
research
communities



* Launched by Japanese government on 15 April 2012
at East Asia Low Carbon Growth Partnership Dialogue

長期目標 中期の転換 短期の行動
持続可能な社会 > 安定な気候 > エネルギーデカップリング > グリーン経済

政策形成のための
バックカスティング

生活質(QoL)の優先度



自然

エネルギー

経済

長期: 持続可能な社会



安定な気候
低炭素社会



中期: エネルギー・GHGと
経済のデカップリング

短期: グリーン経済への転換

グリーン投資・グリーン資金



生存

安全

利便

快適



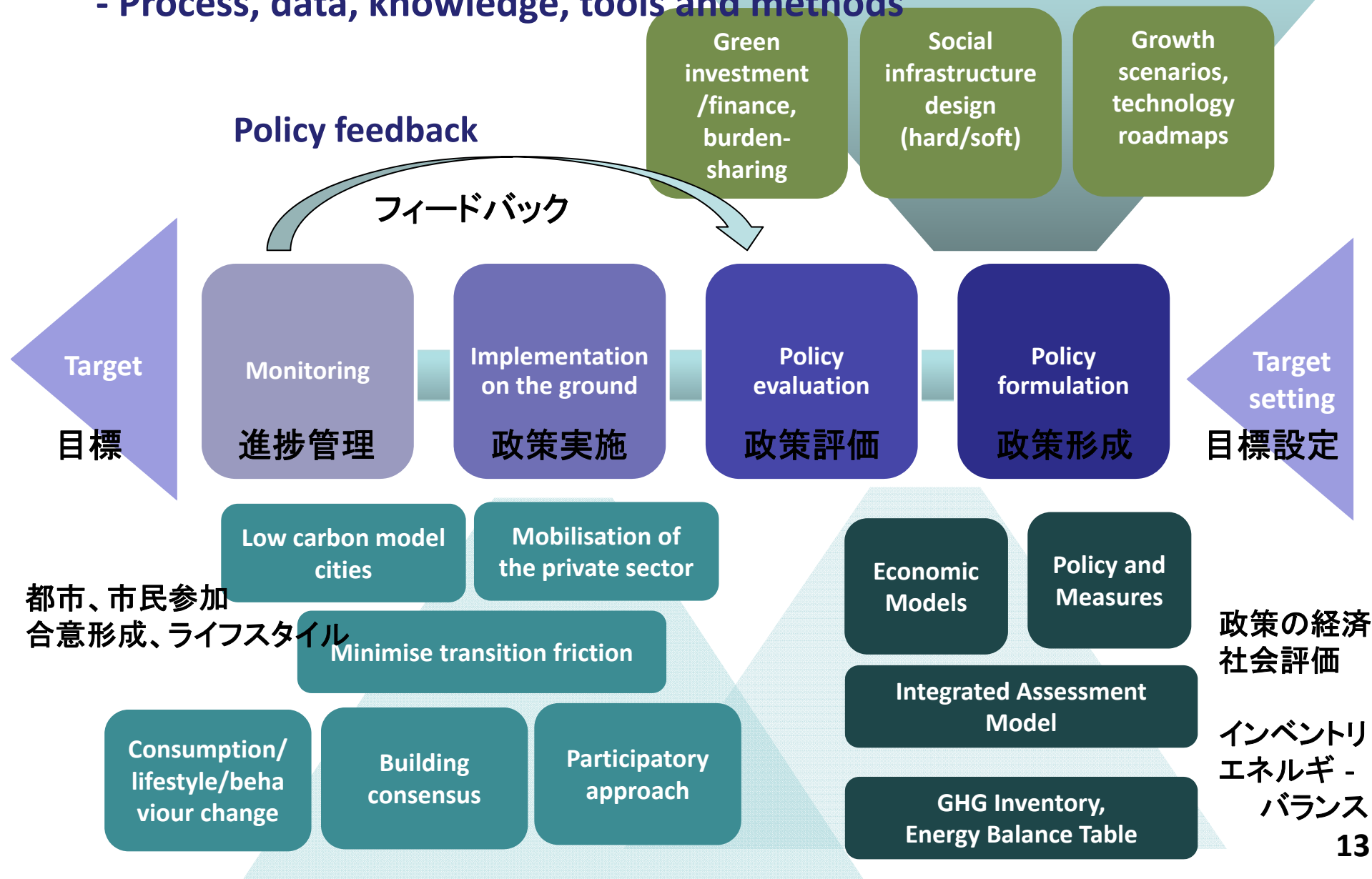
135~163 兆円 (2011-2030)

低炭素化政策のステップと必要な科学的知見

Formulation of low-carbon growth policies

- Process, data, knowledge, tools and methods

技術・インフラ・都市計画
投資、分担、法律



第一回LoCARNet年次会合で取り上げられた緊急性のある研究課題 Urgent research needs focused at 1st annual meeting of LoCARNet

- 政策決定に置ける統合モデルの利用
Policy Making Process and Use of Integrated Assessment Model
- 土地利用と森林政策
Land Use and Forestry
- 温室効果ガス排出推定の方法
GHG Inventory
- アジアにおける政策を可能にする技術
Technology needs & enabling policies in Asia
- 低炭素都市
Low Carbon City
- 地域固有の習慣・選択・イニシアティブ
Local Level Practices, Local Decisions and Local Initiatives
- 低炭素グリーン成長に向けた制度構築
Institutionalisation of Low-Carbon Green Growth

活動計画: Planed activities of LoCARNet

活動目的 Objective	方法: Vehicle/ facilitation	活動主体: Participation
研究成果の向上 Enhancing research output	<ul style="list-style-type: none"> Scientific information exchange through WS, newsletter, periodical journal, website, mutual communication, Joint research 	Mainly research community,
研究能力の向上 Strengthen research capacity	<ul style="list-style-type: none"> Training WS Internship On-the -Job training by joining practical project 	Research community, government, funding agency
重要研究域の同定 Identifying key research area	WS, Dialogues,	Researcher/ Policy maker
研究資金 Funding to research work	Match- making of research fund	Researchers, Funding organization
政策対話 Promotion of science – policy integration	WS, dialogue	Researcher/ Policy maker
日常的知識交流 Routine information exchange	News Letters, Home page	Joint work of all members and Secretariat
実務者の能力開発 Capacity Building of Practitioners	Training course	Collaboration of government and research community
科学的知識の普及 Dissemination of Scientific knowledge	<ul style="list-style-type: none"> Publishing journal Webinar Mail magazine International meetings; IPCC, UNFCCC, ASEAN meeting, Academic meetings,,,, 	Researcher/ all members Secretariat Researchers
ネットワークの管理 Management / Scheduling/ Operation of LoCARnet	<ul style="list-style-type: none"> Decision making information center & distribution 	Steering Team & Secretariat

Example :Framework of “Low Carbon Asia Research Network (LoCARNet)”

LoCARNet is a multi-layered, flexible network for researchers to contribute to low carbon policy-making.

組織構成案



Input to International Policy Arena (G8/G20 UNFCCC)

資金・援助機関

- UNEP
- UNESCAP
- ADB
- JICA
- KOICA
- USAID
- CDKN
- etc...



各国内研究ネットワーク

国際機関

- LCS-RNet
- SATREPS
- JST / JICA
- APN
- CLEAN
- GGGI
- EU
- etc...

International Knowledge Sharing Activities

すでにアジアでは低炭素発展に向けて多くの国が官民挙げて取り組んでいる。
Already exists many knowledge sharing mechanisms in Asia

International/Regional:

- ADB: RDTA: Strengthening Planning Capacity for Low Carbon Growth in Developing Asia: 2011-2013
- World Bank: Low Emission Development Policy Implementation:
- EU ASEM: ASEM Green Growth Forum: 3-4 Oct. 2011 Hanoi
- APN: Asia-Pacific Network for Global Change Research: 1997-
- USAid under Low Emission Development Strategies: LEAD 2012-
- GGGI: Green Growth Initiatives:

Japan:

- Asia GHG inventory workshop: 2002-
- Training WS of Integrated Assessment Model for CC policy: 1996-
- JICA/JST SATREPS Program (Malaysia): 2011-
- Asia Low Carbon Society Research: 2009-2013
- International Research Network for Low Carbon Societies (LCS-RNet): 2008- (Held 5 WSs in 2010-21 in the region)
- East Asia Low Carbon Development partnership Dialogue 2012.4-

**ほかにも多くの同様な活動が、政府・産業・資金機関のもとで行われている。
Other than the above, there are lots of similar mechanisms operated by IOs / other countries, etc.**

第一回LoCARNet 会合(Bangkok)での認識

Key findings from the 1st LoCARNet annual meeting

- 気候安定化へのアジアの役目は大きい
Asia's potential role in climate stabilization
- アジアに共通のアプローチと方法論があるが、解決はそれぞれに
Common approach and method, but differential solutions
- 社会と政策に応える研究
Stakeholder driven policy research
- 地方や部門スケールでの取り組みが有効
Managing countermeasures at local and sector scales
- 低炭素化の取り組みは、まず技術と能力開発、だけどそれだけでは足りない
Technology and capacity development and beyond for low carbon initiatives
- 多くの関係者や地域での協力でコベネをひきだす
Multi-stakeholders and regional cooperation to emphasise co-benefits.
- LoCARNet: 研究コミュニティの挑戦
LoCARNet: Challenge of research community

アジア地域において科学的低炭素発展政策形成と実施に深く先駆的に寄与する研究コミュニティ及び関係者による開かれたネットワーク

An open network of research communities and stakeholders that facilitates the formation and implementation of science based policies for low carbon development in the Asian region.

科学者同士・科学者と政策担当者との密な対話

Science-Science-Policy Dialogue:

LoCARNet promotes research for policies towards low-carbon growth by enabling a sufficient amount of dialogue among/between scientists and policy-makers.

それぞれの国に根づいた科学と能力の構築

Ownership of knowledge by countries:

LoCARNet encourages collaboration amongst researchers in-country whose research capacity and scientific knowledge are firmly grounded in their home countries.

地域における自立的協力: **Regional South-South-North Collaboration**

LoCARNet aims to increase in research capacity in the AP region through knowledge sharing and information exchange, in the scheme of regional not only north-south cooperation, but also south-south regional cooperation.

Low Carbon Development in Asia
Thank you for your kind attention!



Save our common climate