

Mobilising Wisdom for Low-Carbon Asia

Low Carbon Asia Research Network

The First Meeting of Low Carbon Asia Research Network
16-17 October 2012, Bangkok

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Background of LoCARNet and the first meeting

- LoCARNet in one line
- Asia in transition
- Low carbon society and element of actions
- Elements of research
- Regional cooperation
- Activities and uniqueness
- Structure of Programme

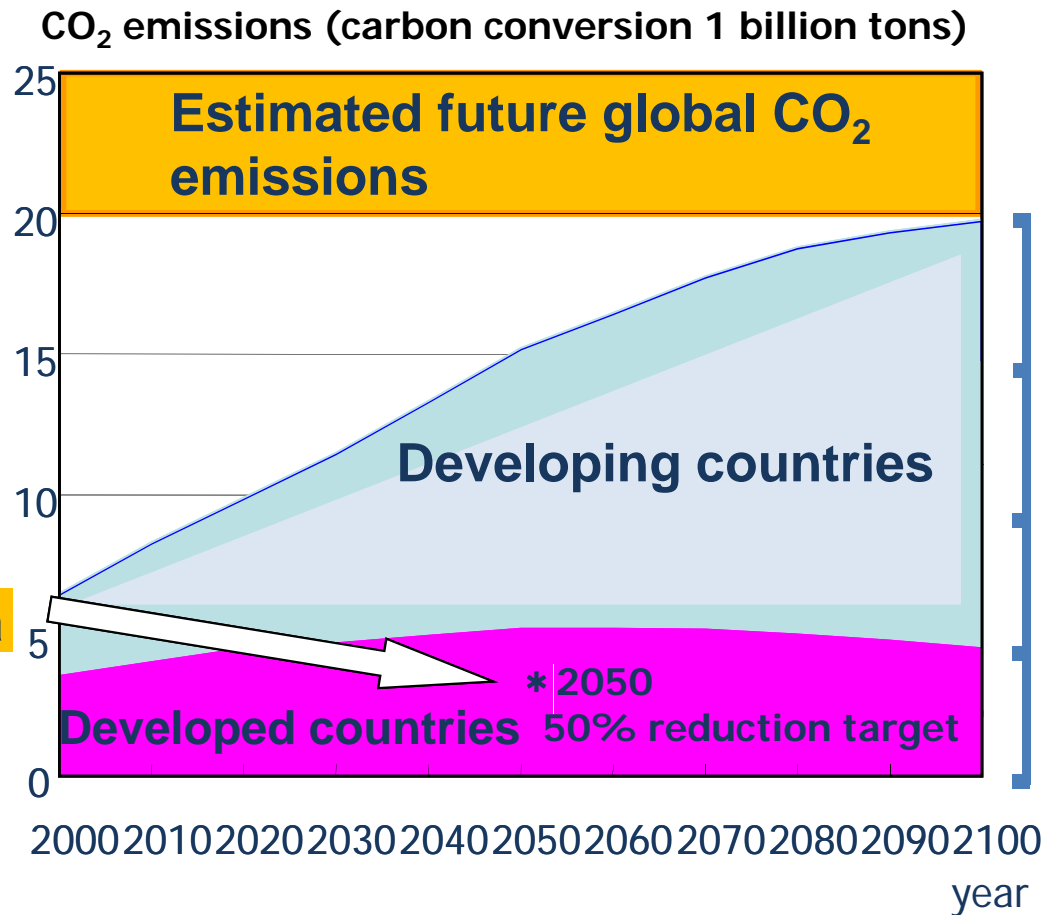
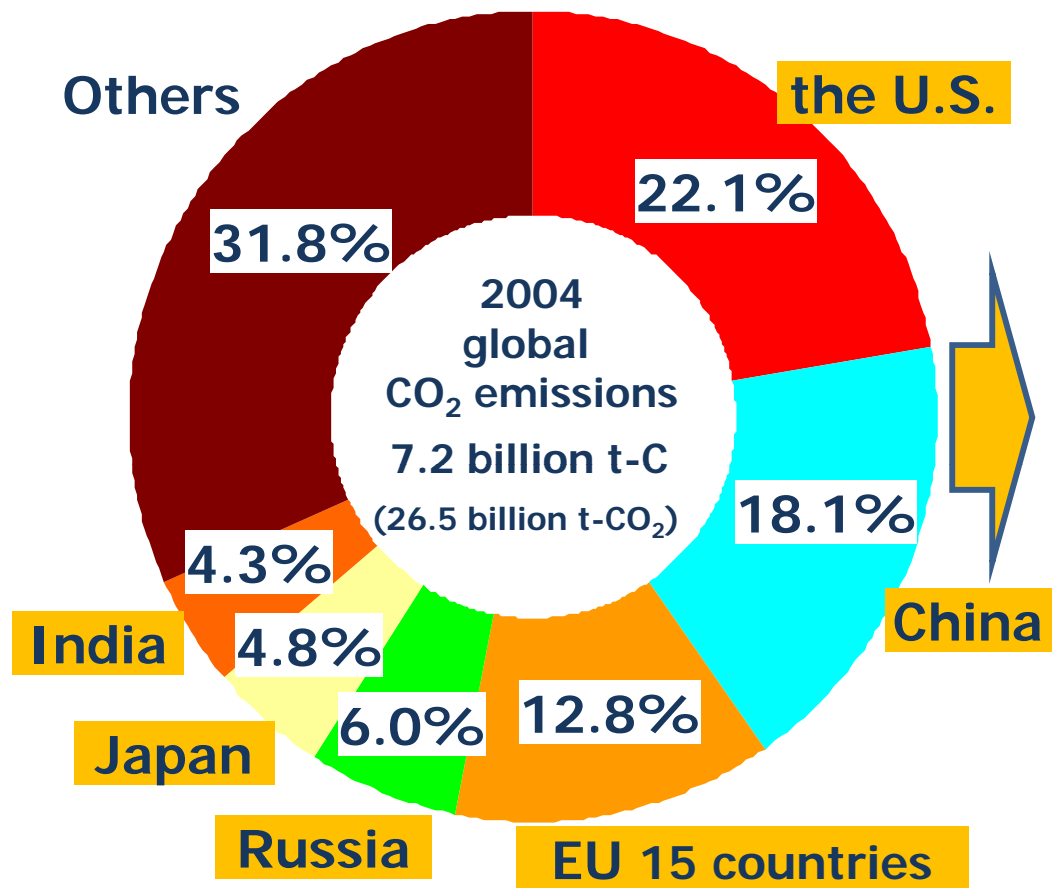


Low Carbon Asia Research Network

**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**

Cooperation with developing countries is key

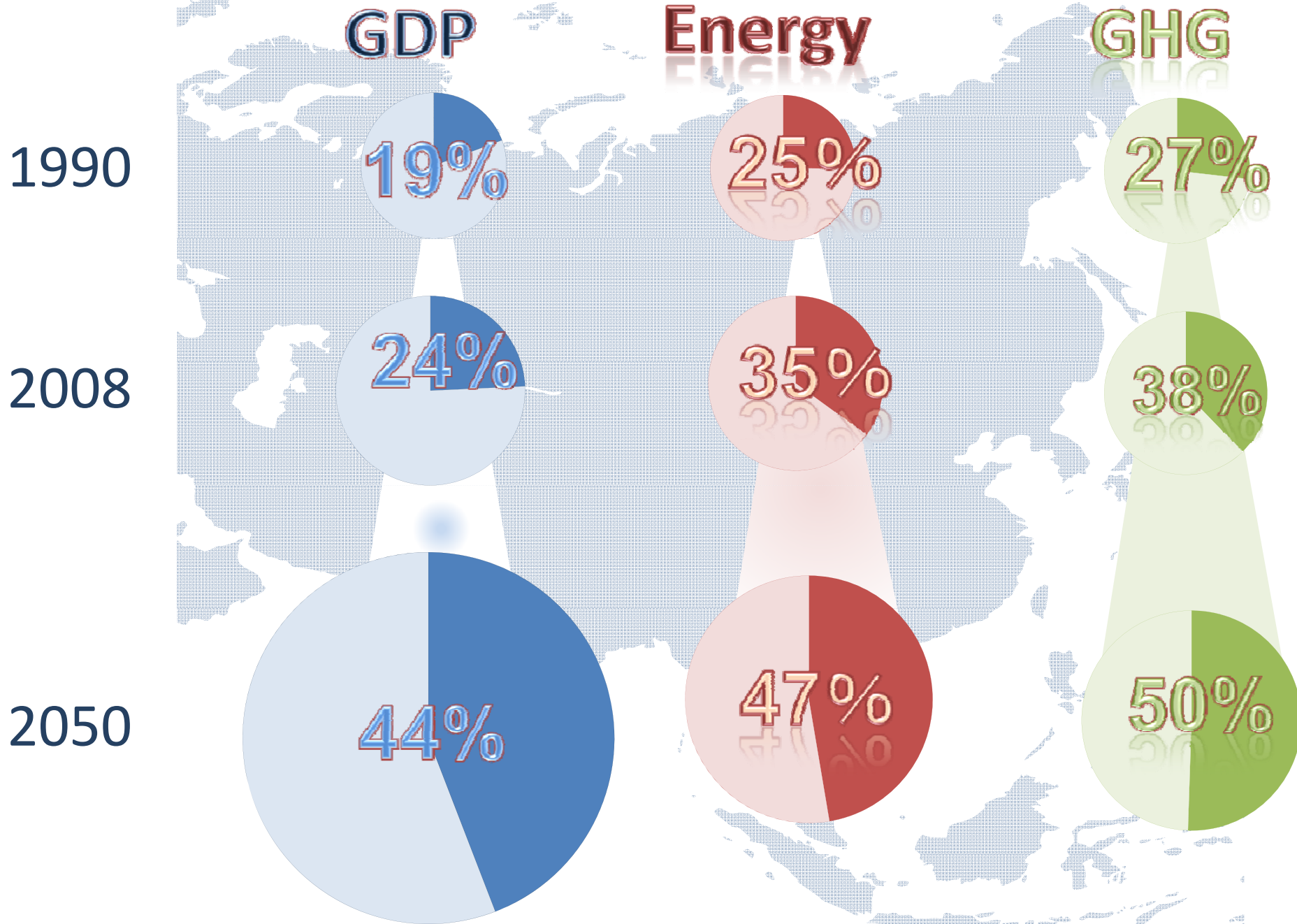
- As significant worldwide reduction is essential



Made by the Ministry of the Environment, Japan based on Energy & Economics Statistics in Japan (2007 version)

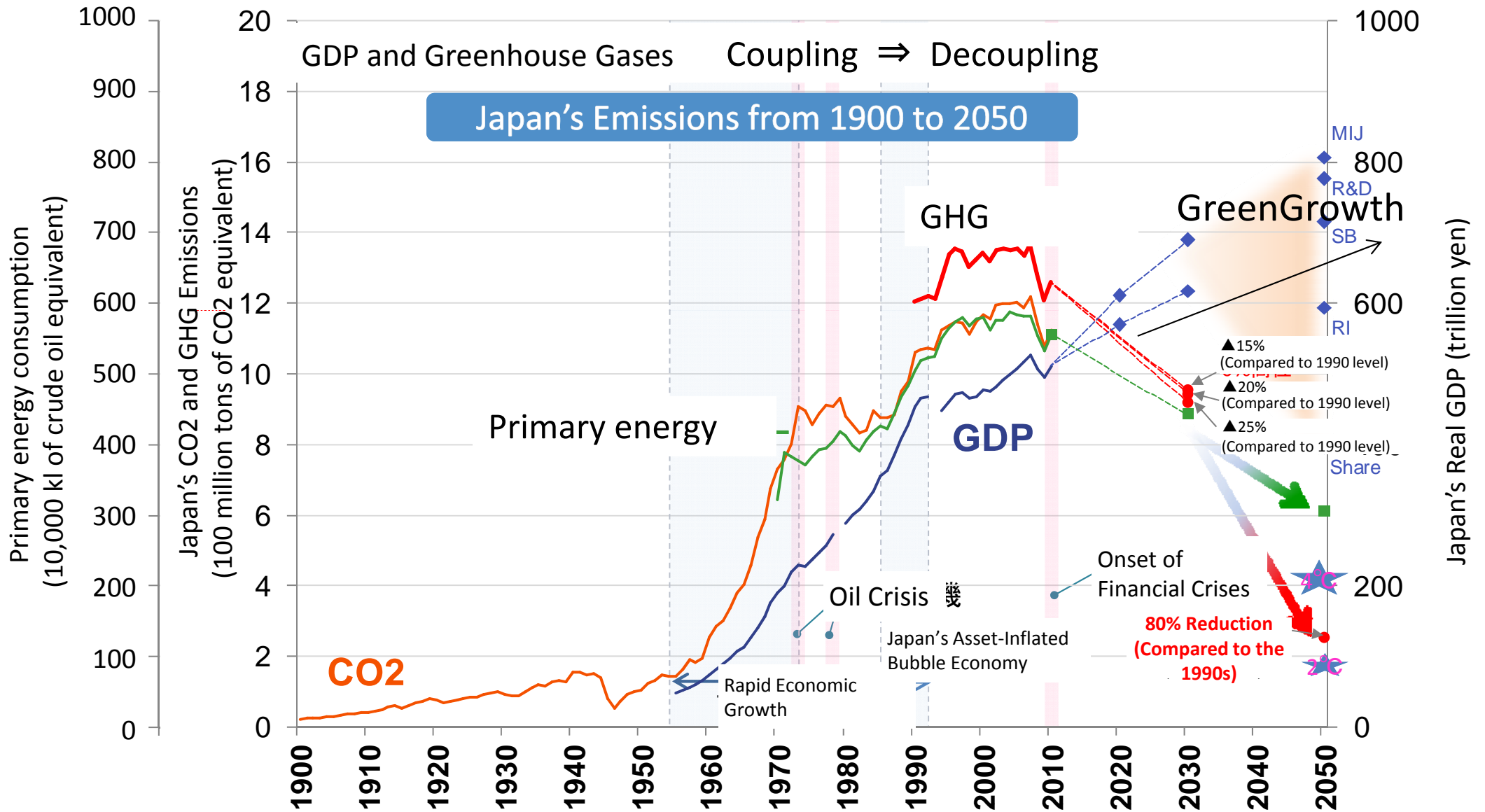
Sources: Kainuma et al., 2002: Climate Policy Assessment, Springer, p.64.

Growing importance of actions towards low-carbon development in Asia



Challenge towards Low Carbon Japan

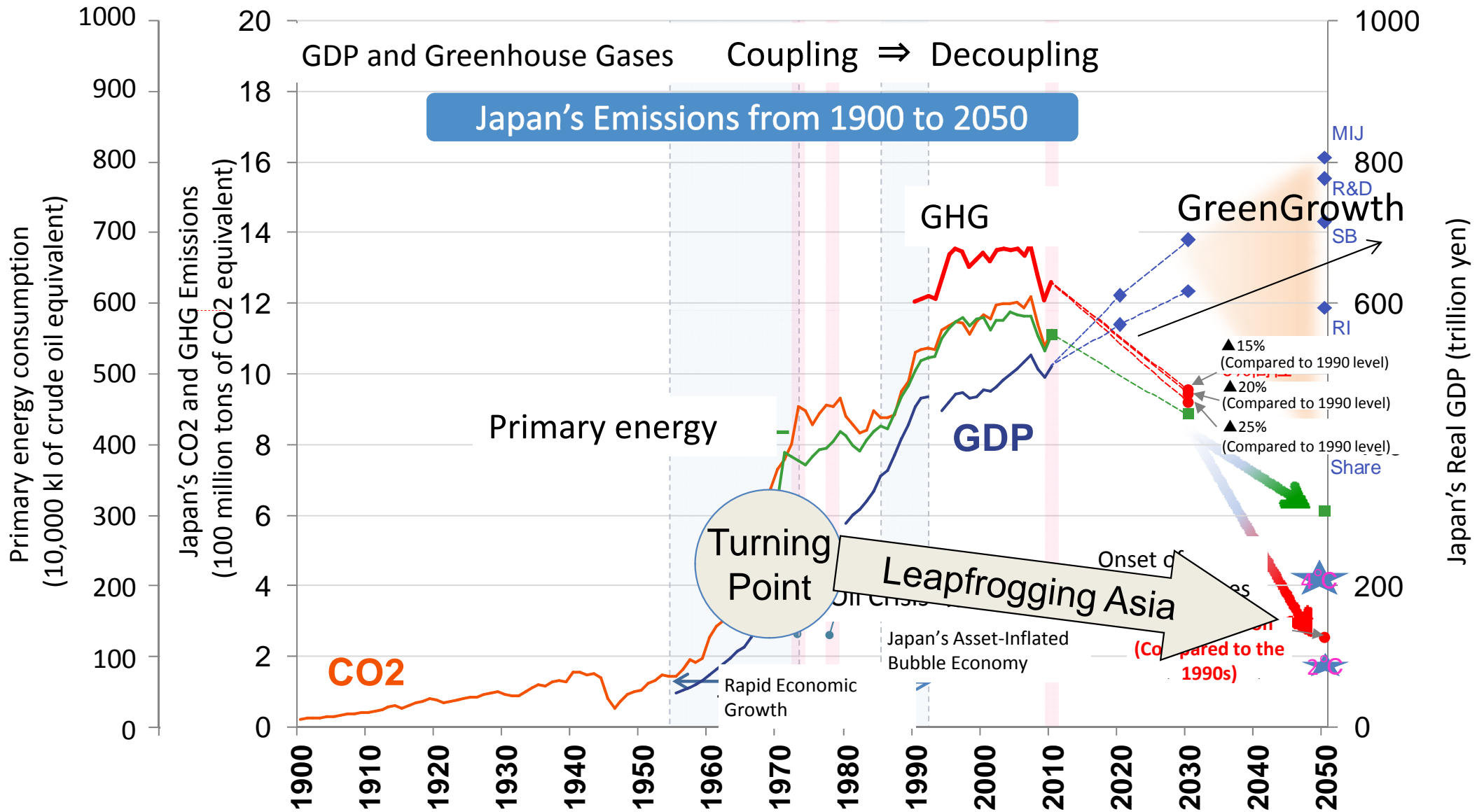
80% GHG reduction by 2050



2) Future GDP values are assumed values based on scenarios A and B from the NIES Low Carbon Society Research Project 2050

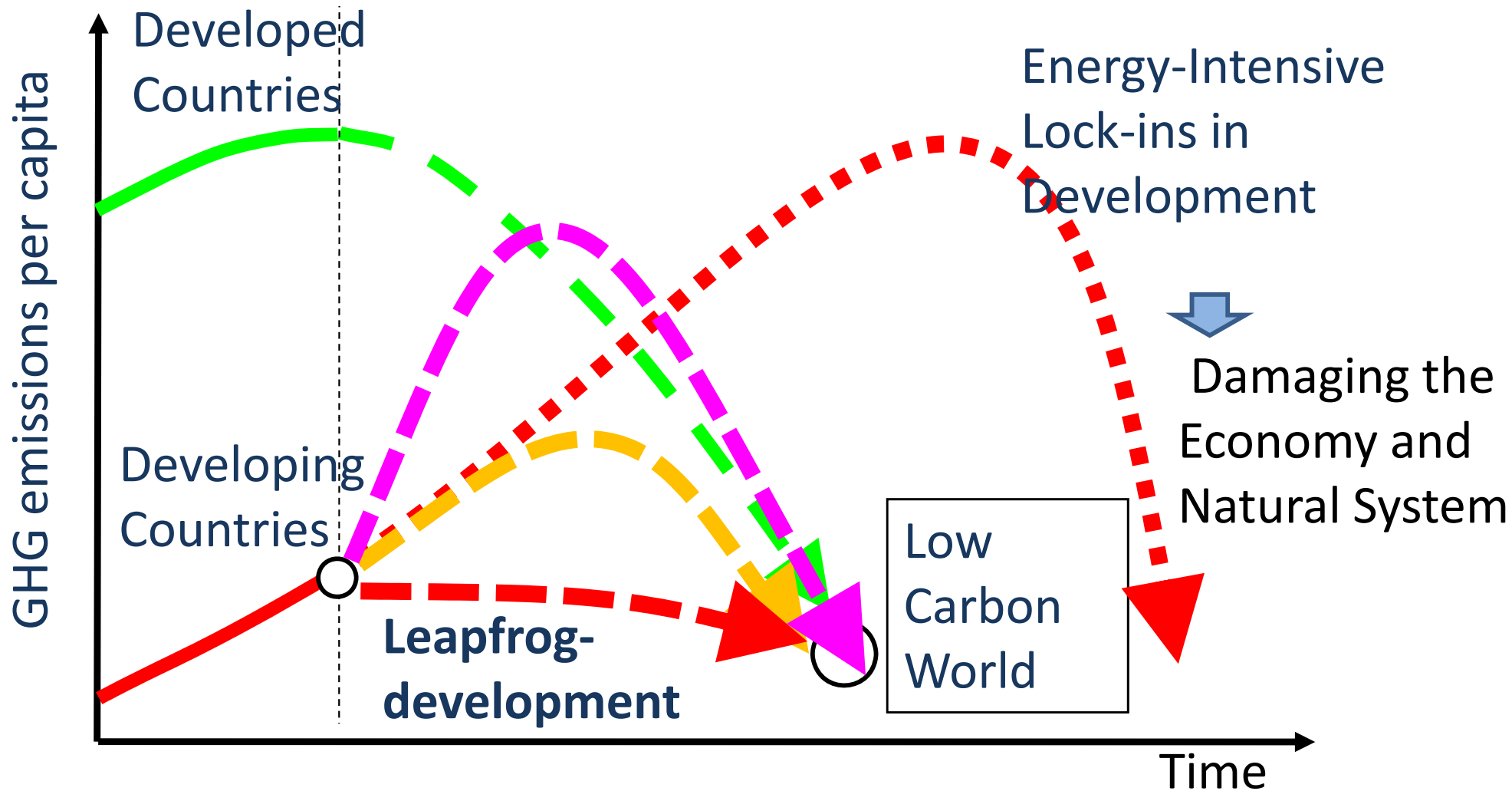
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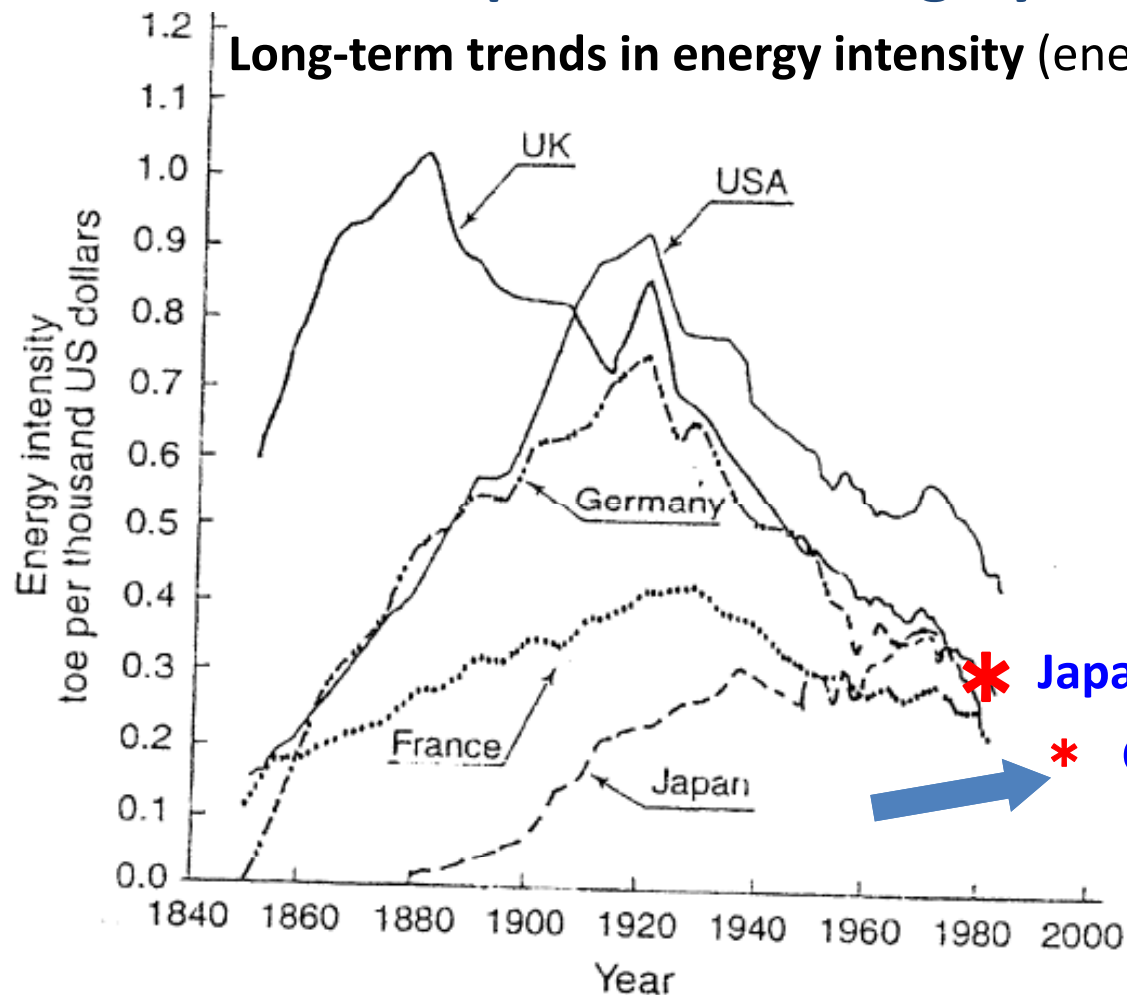
Low carbon/ green growth path



- Encouraging LCS policies in each Asian country
- Informing international negotiations with science
- Networking LCS research in Asia

Opportunities for Asia:

Freedom from past track of highly energy-dependent technologies



Possibility of Asian countries' Leapfrog leveraged by Climate Change

* Japan's leap-frog in Oil Crisis

* China/ASEAN ?

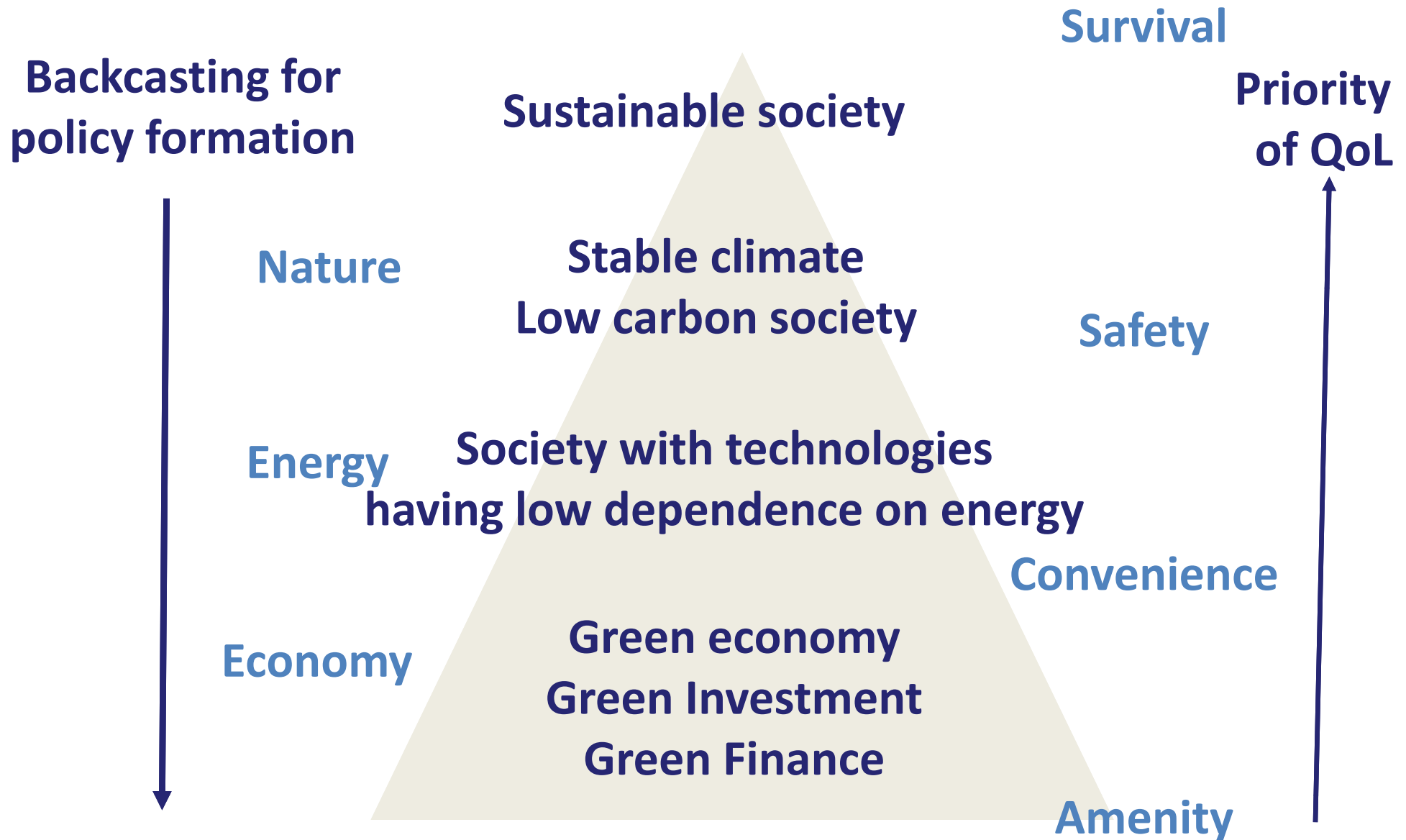
* India ?

*

- 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?

Prioritise policy targets

Stable climate > Society > Economy



Key aspects of Asian low carbon society

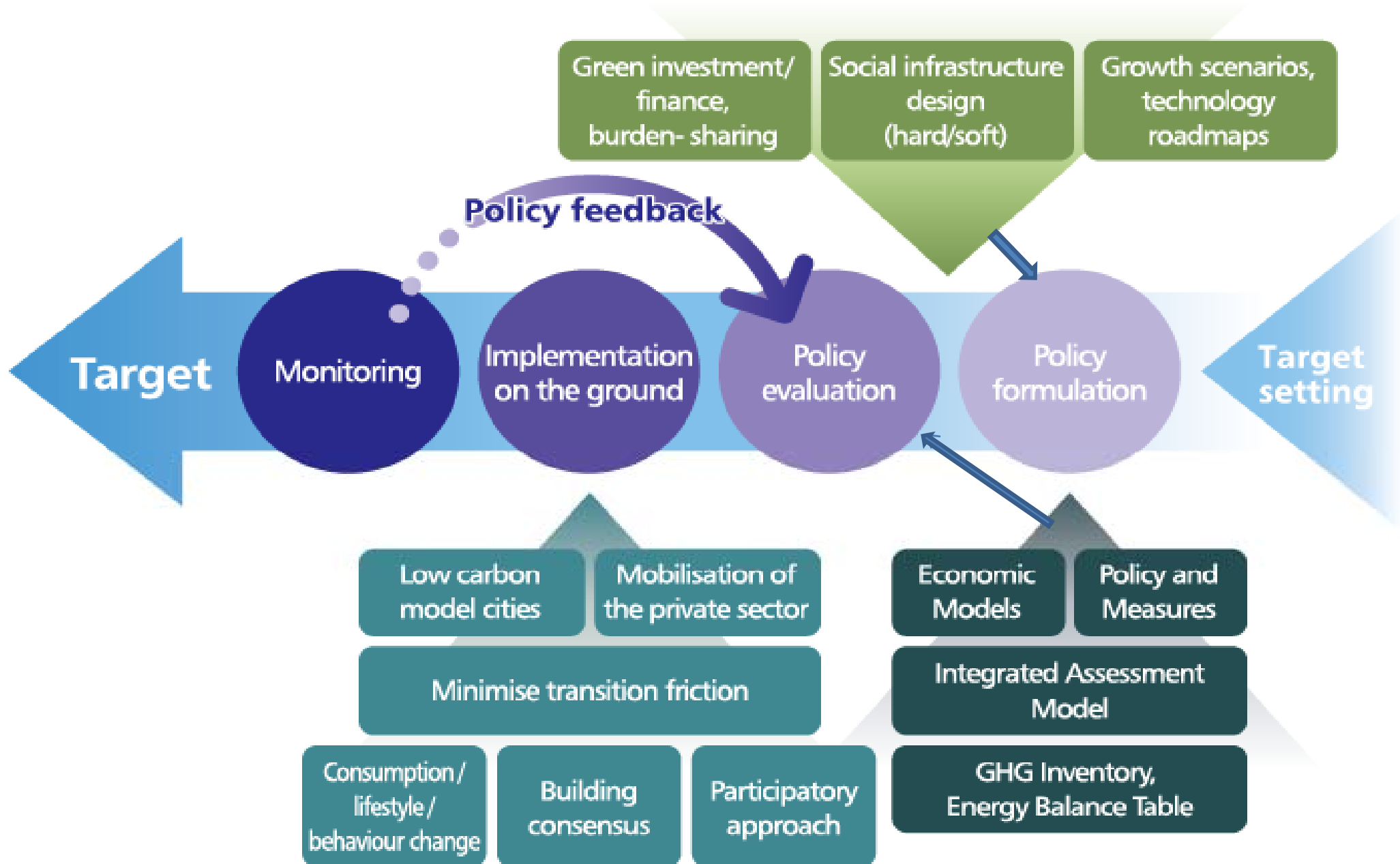
- take actions that are compatible with the principles of sustainable development, ensuring that the development needs of all groups within society are met
- make an equitable contribution towards the global effort to stabilize the atmospheric concentration of CO₂ and other greenhouse gases at a level that will avoid dangerous climate change, through deep cuts in global emissions
- Take actions that improve environment conditions in various aspects.
- demonstrate a high level of energy efficiency and use low-carbon energy sources and production technologies
- adopt patterns of consumption and behaviour that are consistent with low levels of greenhouse gas emissions.

Elements of actions to realize a low carbon society

- Technologies: Energy production technologies, end-use energy saving technologies, system integration of supply-demand technologies, etc.
- Social infrastructure: transportation system, Urban infrastructure, etc.
- Human resources: active participation by policy makers, engineers, citizens participation, etc.
- Institution: Support of market penetration, Funding mechanism, international/regional/national mechanisms such as carbon tax, emissions trading, etc.
- Social capital, and lifestyle: Lifestyle specific to certain community, Energy efficient and low material consumption,

Knowledge to Action: Formulation of low-carbon growth policies

- Step-by-step process from data collection, knowledge sharing, identification of tools and methods, to implementation and review-

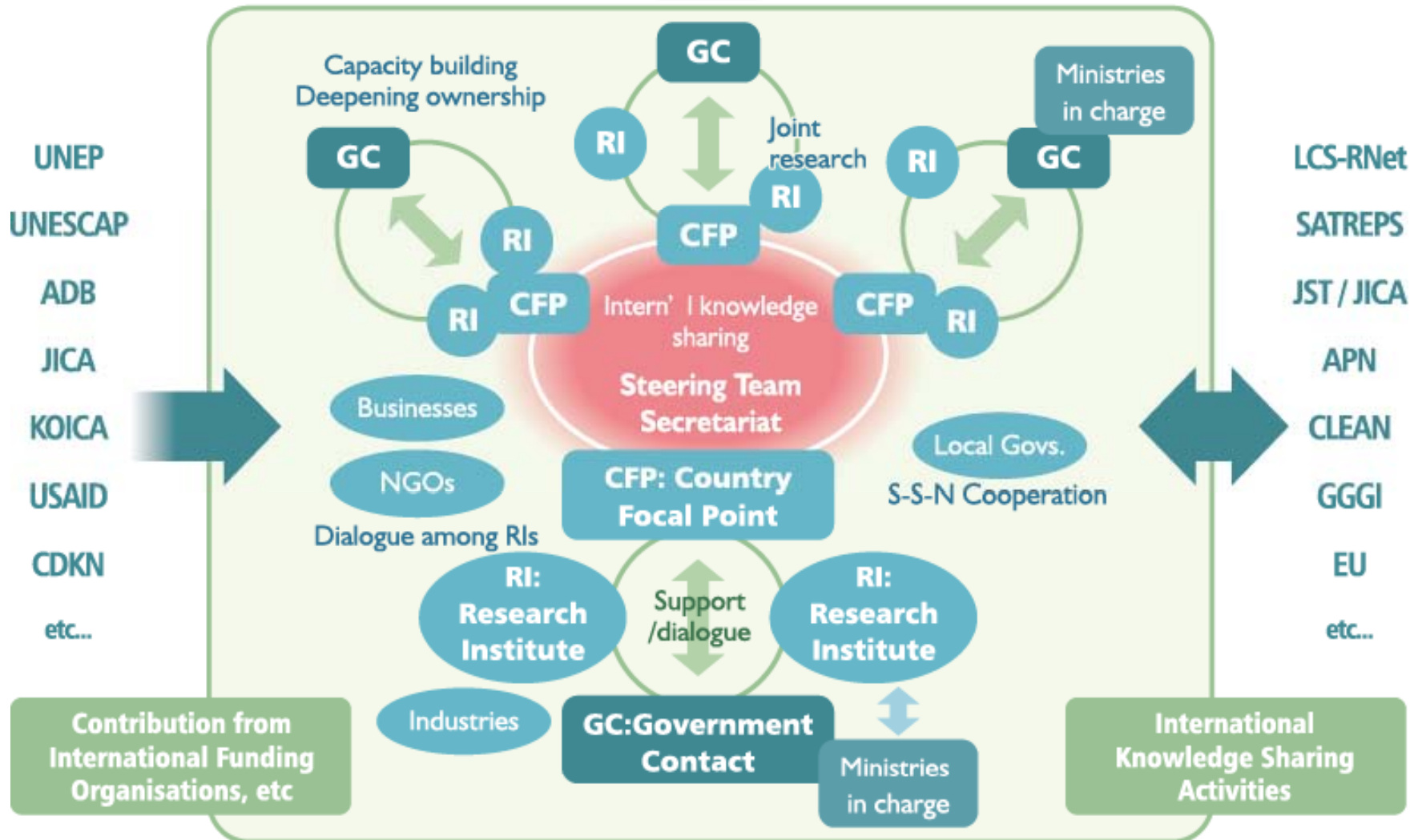


Framework of “Low Carbon Asia Research Network (LoCARNet)”

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



Input to International Policy Arena (G8/G20 UNFCCC)



LoCARNet was initiated through close cooperation amongst Asia-Japan (1)

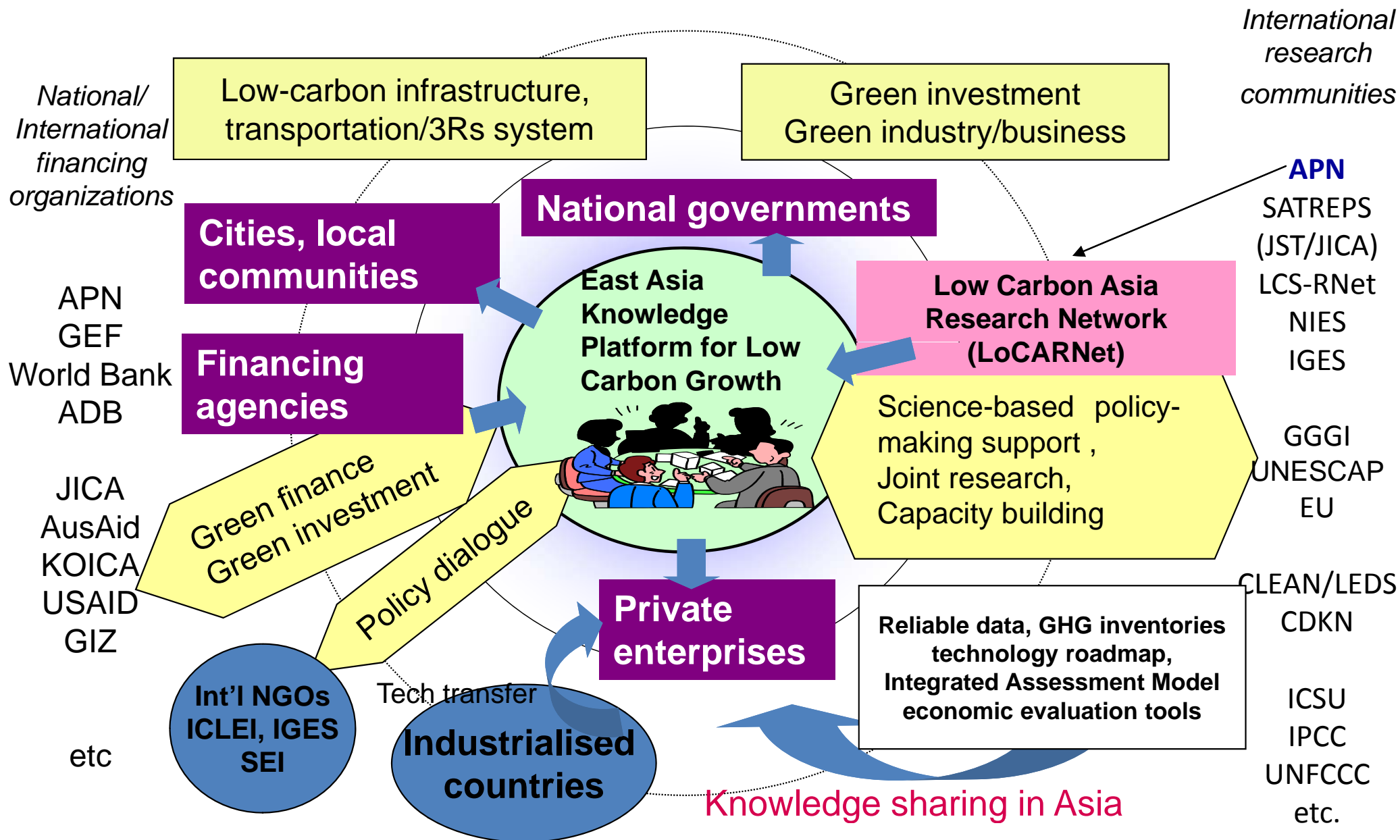
- 1992- The Ministry of Environment Japan (MoEJ) hosts annually **Asia-Pacific Climate Change Seminar**
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- NIES/ Kyoto University/MoEJ host Integrated Assessment Model **(AIM)Training Workshop** annually
- 2003- NIES/IPCC-TSU in IGES/MoEJ host annually **Workshops on Greenhouse Gas Inventories (WGIA)** in Asia
- 2006-NIES/MoEJ started **Low Carbon Asia Research Project** with Asian Researchers
- 2010-Kyoto Univ./NIES/Mext(The Japanese Ministry of Education, Science and Technology)/JICA started research collaboration on **low-carbon city under the SATREPS** programme.

LoCARNet was initiated through close cooperation amongst Asia-Japan (2)

- 2010- IGES hosted 5 **Low Carbon Asia Workshops** to promote dialogues between policy-makers and researchers
- 2011 Oct. Japanese Government proposed **LoCARNet at ASEAN+3 Environmental Ministers' Meeting** in Cambodia. And 2012 Sept. Progress of LoCARNet was reported back to the Meeting.
- 2012 April At the **East Asia Low Carbon Growth Partnership Dialogue**, LoCARNet was launched by Japanese Government as part of “**East Asia Knowledge Platform for Low Carbon Growth**”
The Secretariat of LoCARNet is tentatively located at the Institute for Global Environmental Strategies (IGES),
- 2012- **ADB promotes its Technical Assistance** in close collaboration with LoCARNet.
- 2012FY- APN established “**Low Carbon Initiative**” research fund to support LoCARNet
- And now we are here .

LoCARNet as a Think Tank

for the East Asia Knowledge Platform for Low-Carbon Growth*



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

Network of leading researchers/research organisations who are deeply involved in low-carbon growth policy processes in this region.

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.

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.

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.

Planned activities of LoCARNet (1)

<i>Objective</i>	<i>Vehicle/ facilitation</i>	<i>Participation</i>
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,
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
Identifying key research area	WS, Dialogues,	Researcher/ Policy maker
Funding to research work	Match- making of research fund	Researchers, Funding organization
Promotion of science –policy integration	WS, dialogue	Researcher/ Policy maker

Planned activities of LoCARNet (2)

<i>Objective</i>	<i>Vehicle/ facilitation</i>	<i>Participation</i>
Routine information exchange	News Letters, Home page	Joint work of all members and Secretariat
Capacity Building of Practitioners	Training course	Collaboration of government and research community
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
Management / Scheduling/ Operation of LoCARnet	<ul style="list-style-type: none"> • Decision making • information center & distribution 	Steering Team & Secretariat

For the Future of LoCARNet

- LoCARNet promotes in an efficient manner research for policies towards low-carbon growth by enabling a sufficient amount of dialogue between scientists and policy-makers while also encouraging collaboration amongst researchers in-country whose research capacity and scientific knowledge are firmly grounded in their home countries.
- LoCARNet aims to become an autonomous researchers' network based on regional cooperation in the Asian region in near future.
- Support from governments in this region is indispensable, and LoCARNet seeks to strengthen *collaboration with other organisations* and funding agencies and networks focused on climate change, such as ADB, JICA, WB, UNEP, UNESCAP, UNFCCC, CDKN, LEAD,,,
- Private sector collaboration also become vital for science based green investment and green growth

The *First* LoCARNet Meeting

Major Task is to

- Identify low carbon research direction and forefront
- Plan working frame & mid-term activities
- Establish collaboration amongst stakeholders

Programme consists of

Day 1 16th

- Opening
- Introduction to LoCARNet
- Key note speech
- Breakout sessions
 - Research forefront
- Reception

Day2 17th

- Pane 1:
 - Research direction
- Key note speech
- Panel 2:
 - Regional collaboration
- Wrap-up
- Closing

Research fields focused by break out session

and session leaders

- Policy Making Process and Use of Integrated Assessment Model *Bundit Limmeechokechai*
- Land Use and Forestry *Rizaldi Boer*
- GHG Inventory *Sirintornthep Towprayoon*
- Low Carbon City *Ho Chin Siong/ Junichi Fujino*
- Local Level Practices, Local Decisions, and Local Initiatives *Atsushi Watabe*
- Institutionalisation of Low-Carbon Green Growth *Kentaro Tamura*
- Technology needs & enabling policies in Asia *Shobhakar Dhakal*

Output/Outcome are

- *Output/Outcome*

- Meeting report: findings and recommendation
- Future vision & plan
- Collaborative basement

- *Dissemination of the Result*

- Meeting report sent to governments, research/ international/ funding agencies,
- Report and disseminate at UNFCCC/COP, ASEAN + 3 EMM, and related fora
- Report to related academic and policy related meetings
- Through website and Newsletter of LoCARNet

The *second* LoCARNet meeting (Tentative)

22-23 July in Yokohama

Back to back with ISAP* and LCS-RNet*

* ISAP: International Forum for Sustainable Asia and the Pacific organized by IGES

* * LCS-Rnet: Low Carbon Society Research Network with G8 Countries, secretariat located at IGES

Thank you for your attention!



Save our common climate

Acknowledgement (口頭)

- タイ政府 環境省 TGO サポート Arrangement
- JGSEE サポート Arrangement

- 日本環境省 資金
- ADB 協力
- 研究者 テーマセッション 構成

- 出席の国際機関、研究機関 出席者皆様

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Example of Leapfrogging Asia

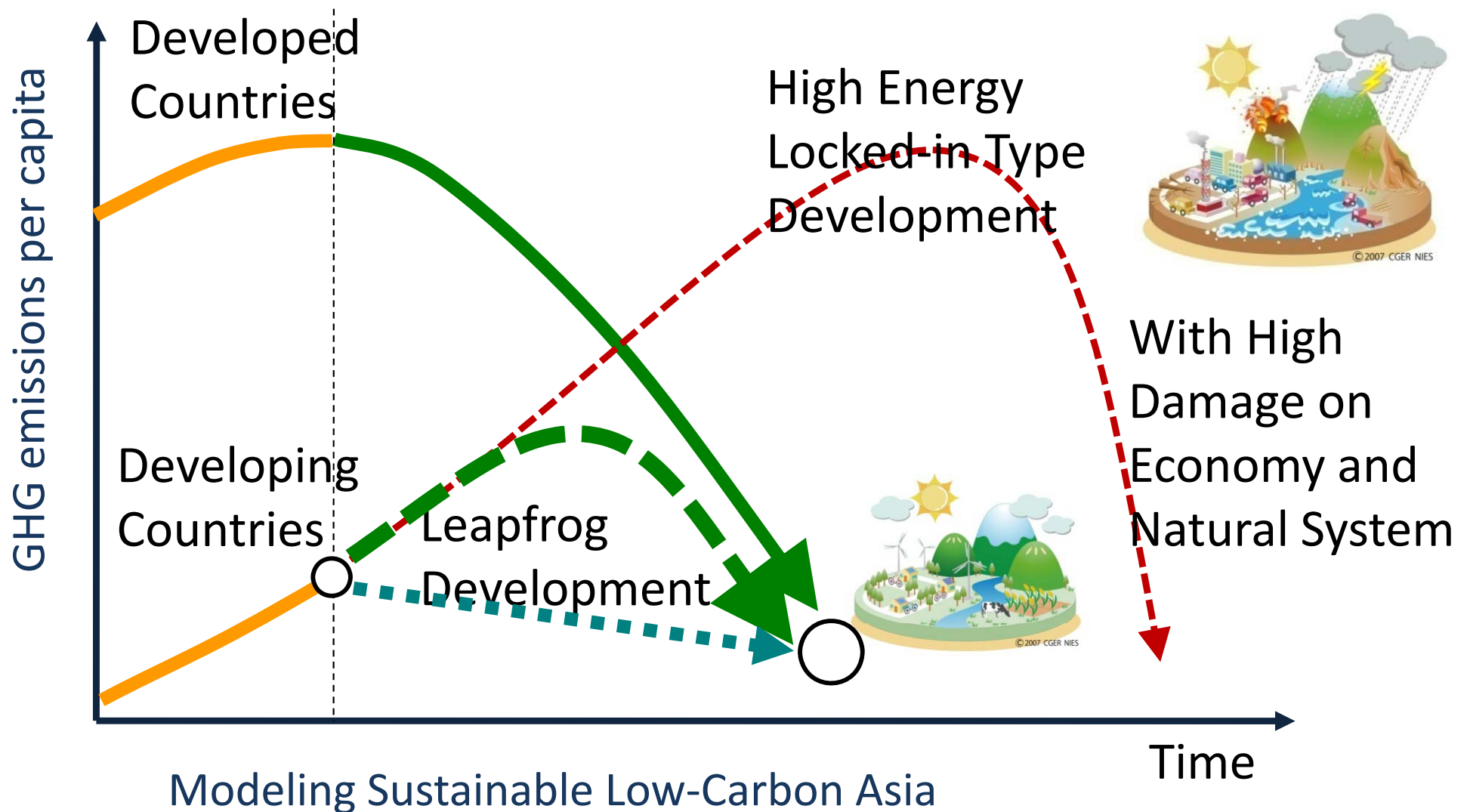
	<i>Country</i>	<i>Domestic factors</i>	<i>External factors</i>
<i>Industrial structure</i>	<u>India</u> : IT industry	Education/ human resources	Soft technology Globalization
<i>Energy structure</i>	<u>Japan</u> : Low energy intensity	Technology Rapid growth	Oil crisis Energy security
<i>Urban structure</i>	<u>Singapore</u> : Transportation, water, housing <u>Tokyo</u> : Public transportation	Small land area Strong leadership Rapid urbanization	Relationship with Malaysia In advance of auto age
<i>Distributed energy</i>	<u>India</u> : Renewable energy, biomass <u>Brazil</u> : Ethanol	Poor power grid investment; land area Sugar cane, scarce oil	
<i>Information</i>	<u>China</u> : Mobile phones	Rapid economic growth, big land area, Not enough com-grid	IT technology
<i>Renewable energy system</i>	<u>China</u> : Wind/solar energy	Vast land area	Climate change
<i>Agriculture</i>	Low energy use	Self sufficiency	Energy price

Table 1. Characteristics of Old and New “Mission-Oriented” Projects

Source: Soete and Arundel (1993, p. 51)

<i>Old: Defence, Nuclear and Aerospace</i>	<i>New: Low Carbon Technologies</i>
The mission is defined in terms of the number of technical achievements with little regard to their economic feasibility	The mission is defined in terms of economically feasible technical solutions to particular environmental problems.
The goals and the direction of technological development are defined in advance by a small group of experts	The direction of technical change is influenced by a wide range of actors including the government, private firms and consumer groups
Centralised control within a government administration	Decentralised control with a large number of involved agents
Diffusion of results outside the core of participants is of minor importance or actively discouraged	Diffusion of the results is a central goal and is actively encouraged
Limited to a small group of firms that can participate owing to the emphasis on a small number of radical technologies	An emphasis on the incrementalist development of both radical and incremental innovations in order to permit a large number of firms to participate
Self-contained projects with little need for complementary policies and scant attention paid to coherence	Complementary policies vital for success and close attention paid to coherence with other goals

Low carbon/ green growth path



“Asian Low-Carbon Society Scenario Development Study” FY2009-2013, funded by Global Environmental Research Program, MOEJ