

Integrated effort for INDC: Japan's comprehensive, continuous and systematic support for science-based climate policy development in Asia

Twenty-third Asia Pacific Seminar on Climate Change
29 August, 2014 Kanazawa

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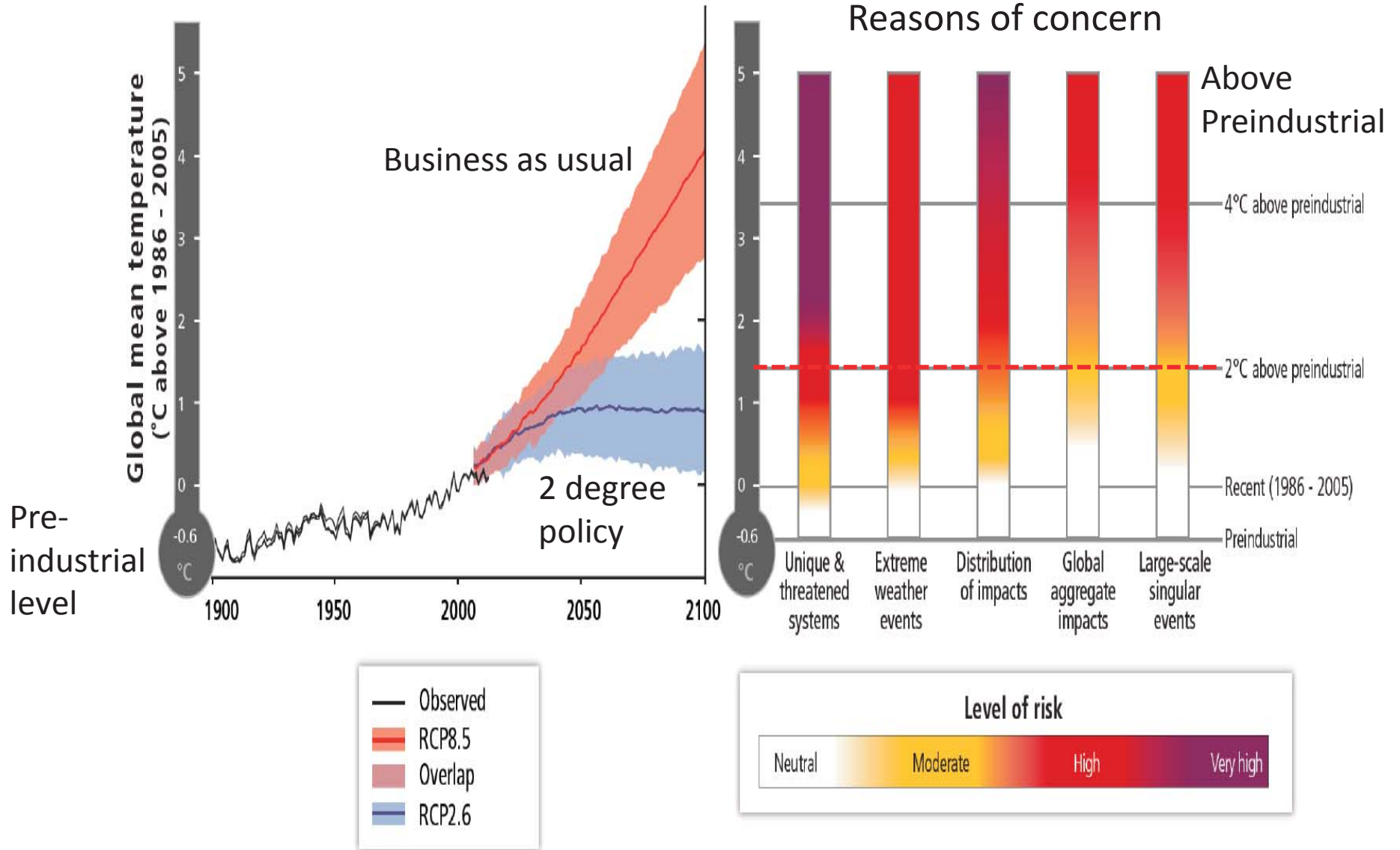
Contents

IPCC AR5: 2 ton CO₂/capita world in 2050

Asian position

Scientific bases for low carbon development policy

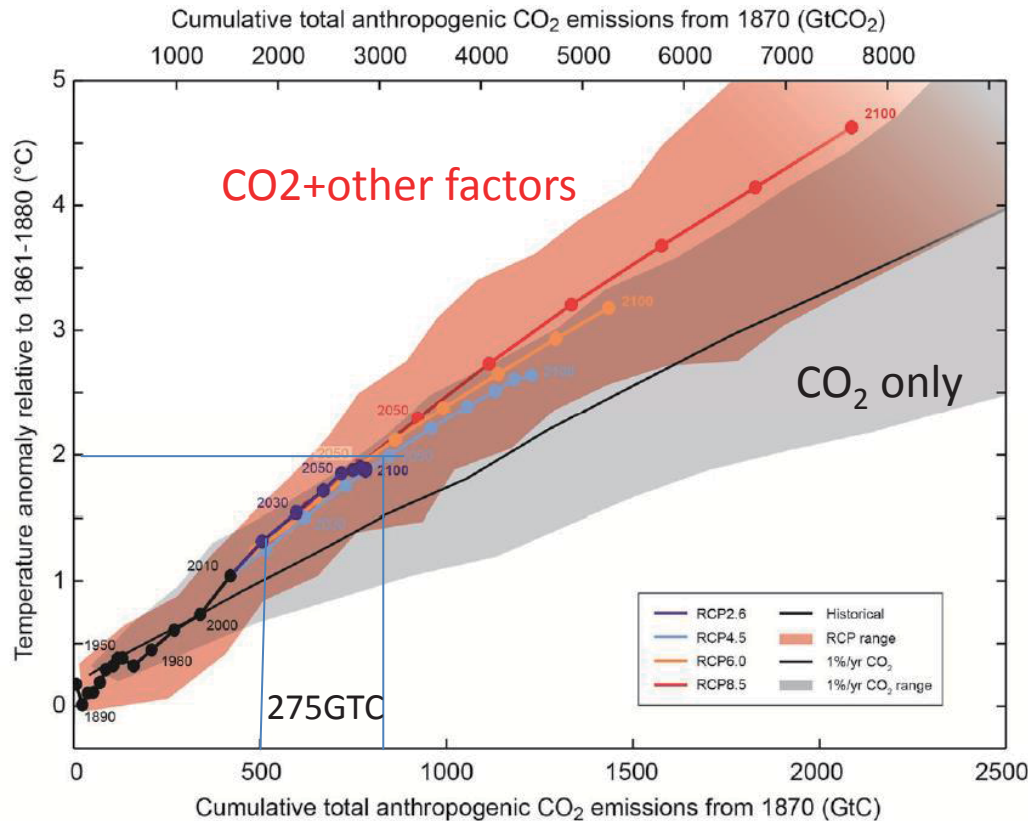
Japan's contribution for supporting INDC



2 degree above preindustrial level : Internationally agreed target of risk aversion

Zero emission is only one ultimate solution
Emission budget to 2°C target and time are limited :

Cumulative total anthropogenic CO₂ emission from 1870 (GtCO₂)
 Linear relation to temperature rise
 → Temperature limit decides upper limit of CO₂/GHG emission



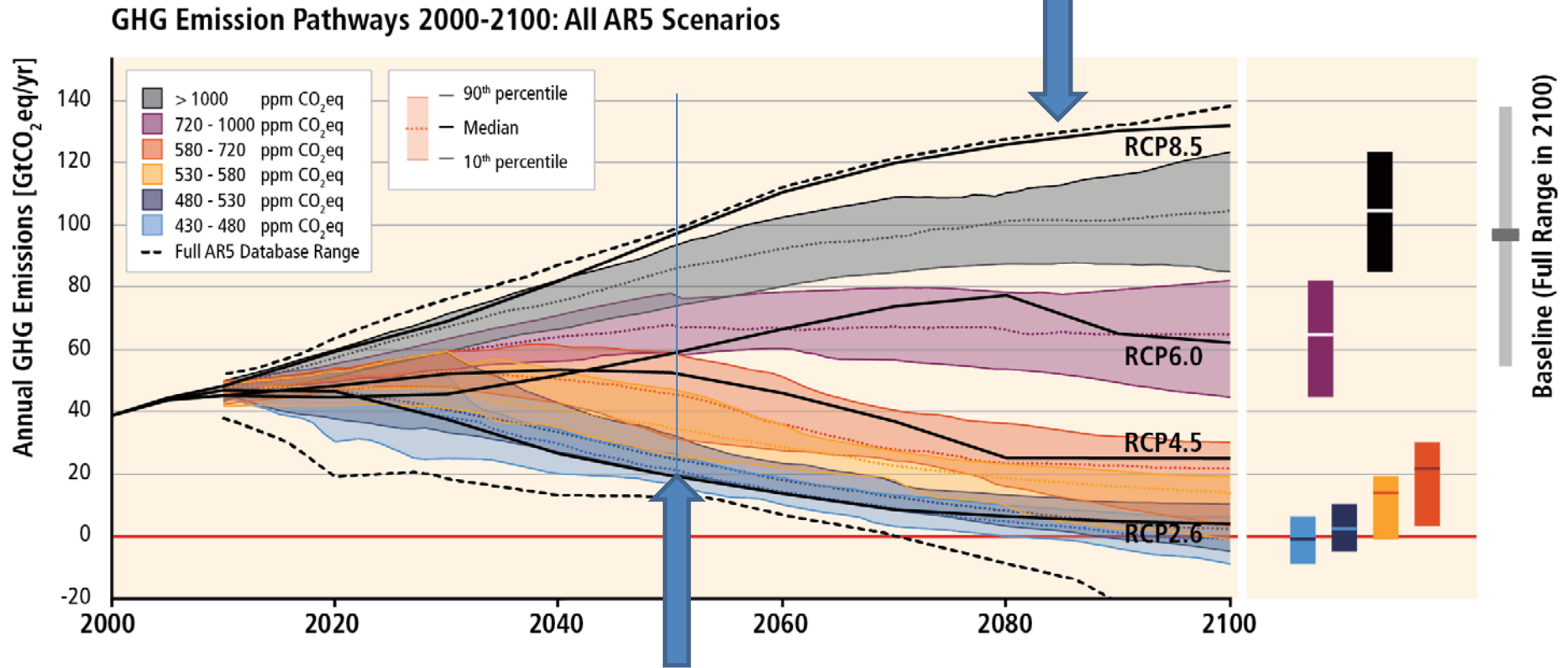
To limit within 2 °C from the pre-industrial era with certain possibility, upper limits are

- >33% → 880GtC
- >50% → 840GtC
- >66% → 790GtC

Already until 2011, 515GtC has been emitted. So, only **275GtC allowed** for 2°C target.

cf. 2013 emission 9.9GtC
 ⇒ if it continues, **30 years** to go, and dead end!

Without more mitigation, global mean surface temperature might increase by 3.7° to 4.8°C over the 21st century.

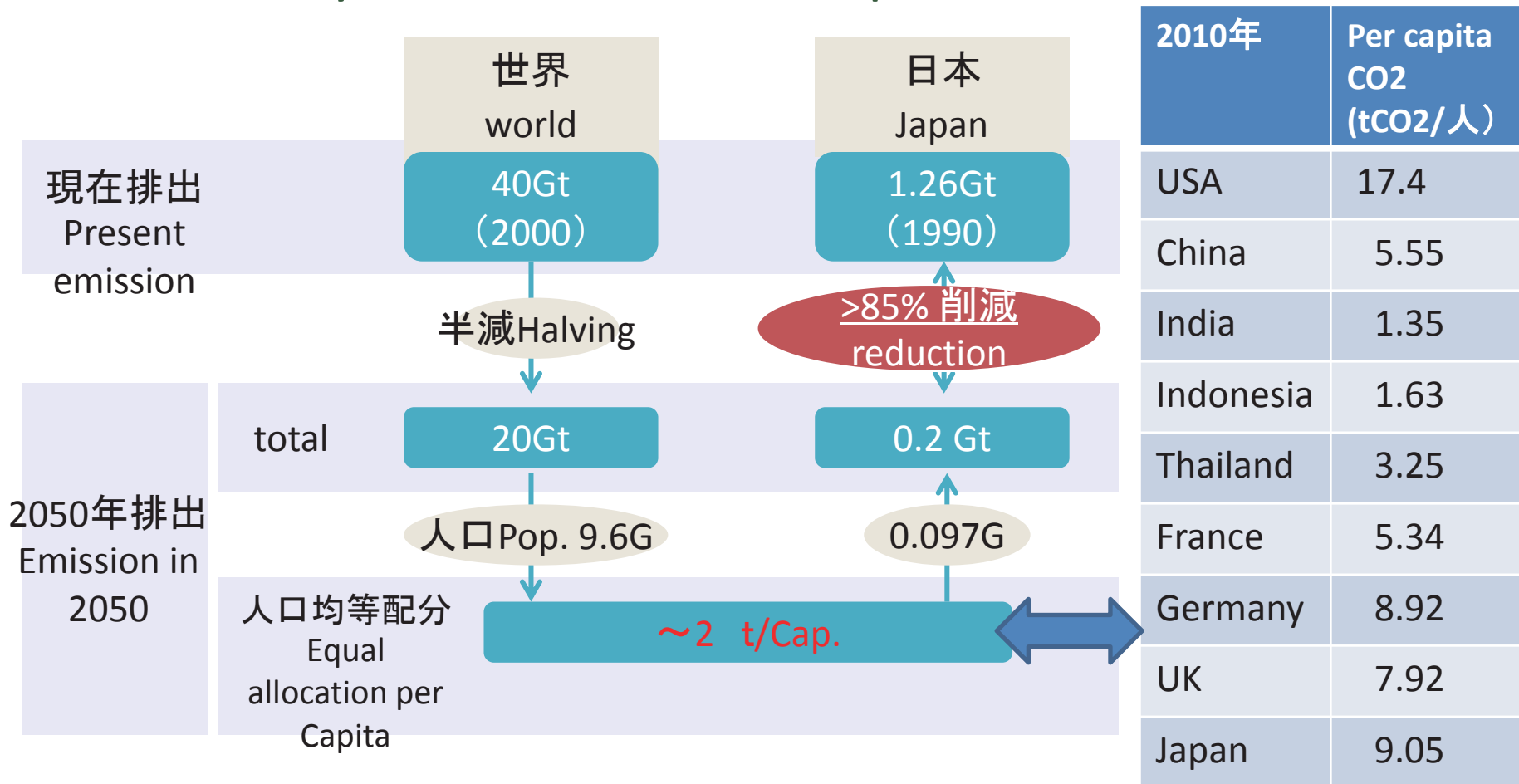


To avoid 2 degree rise, path of passing 50% reduction from now in 2050 is feasible and reasonable .

2050 halving from now: 2ton/Capita World

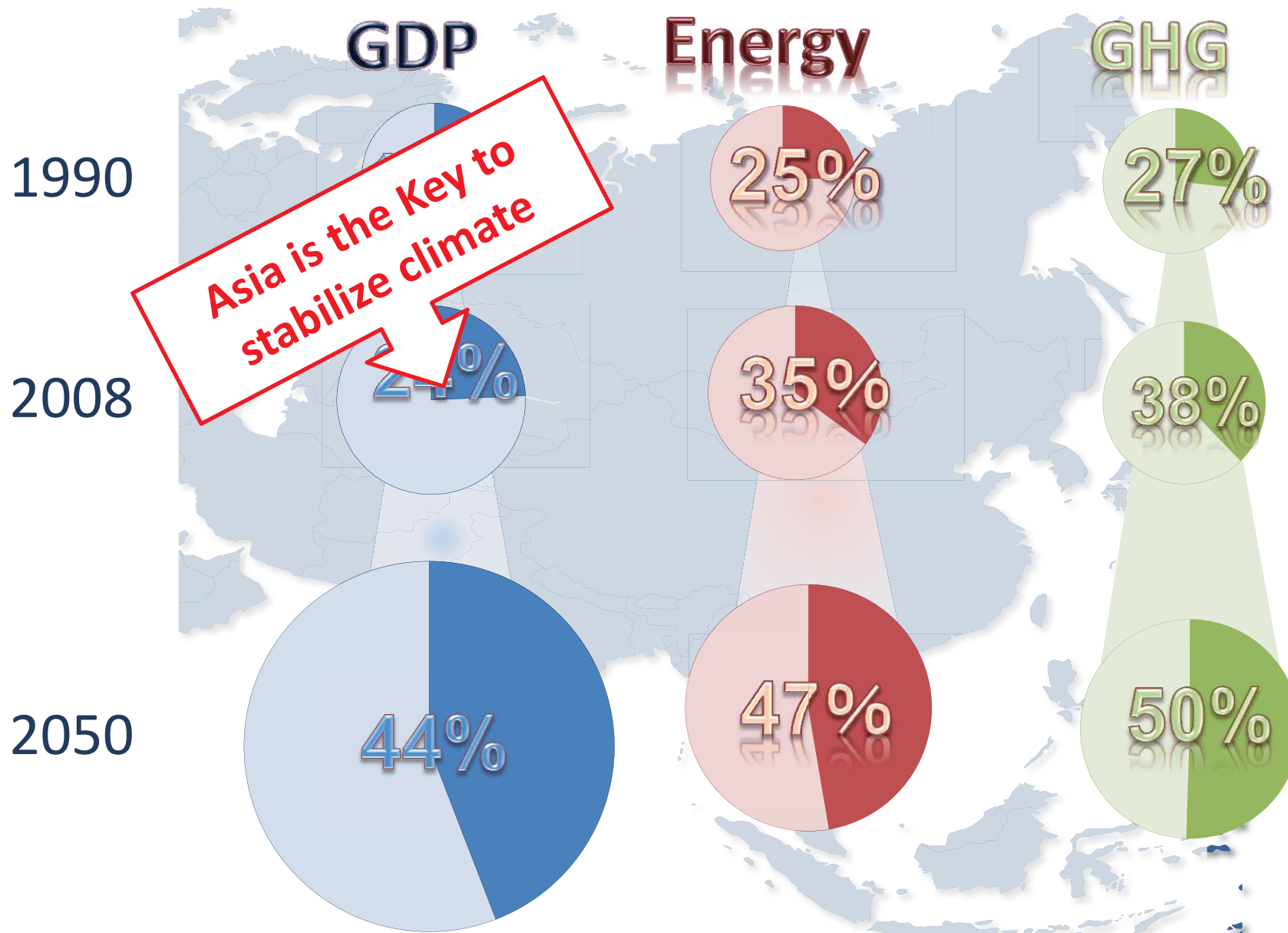
Japan: more than 80% reduction (base year 1990)

Asia: already more than 2ton/ Capita



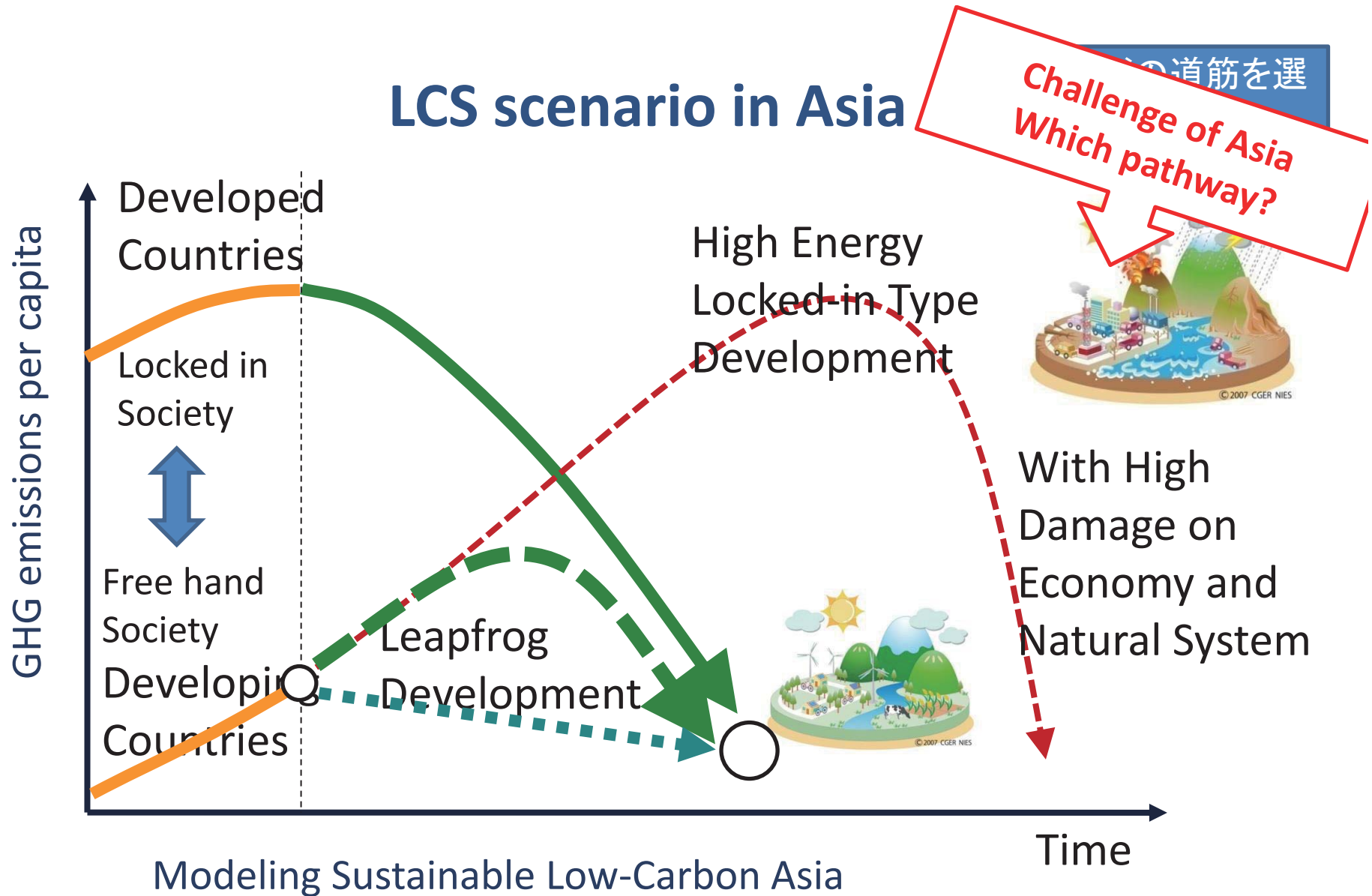
※世界の人口は国連「World Population Prospects, the 2012 Revision」より、日本の人口は社人研「日本の将来推計人口（平成24年1月推計）」より

Growing importance of actions towards low-carbon development in Asia



Source: Presentation by Dr. Mikiko

LCS scenario in Asia

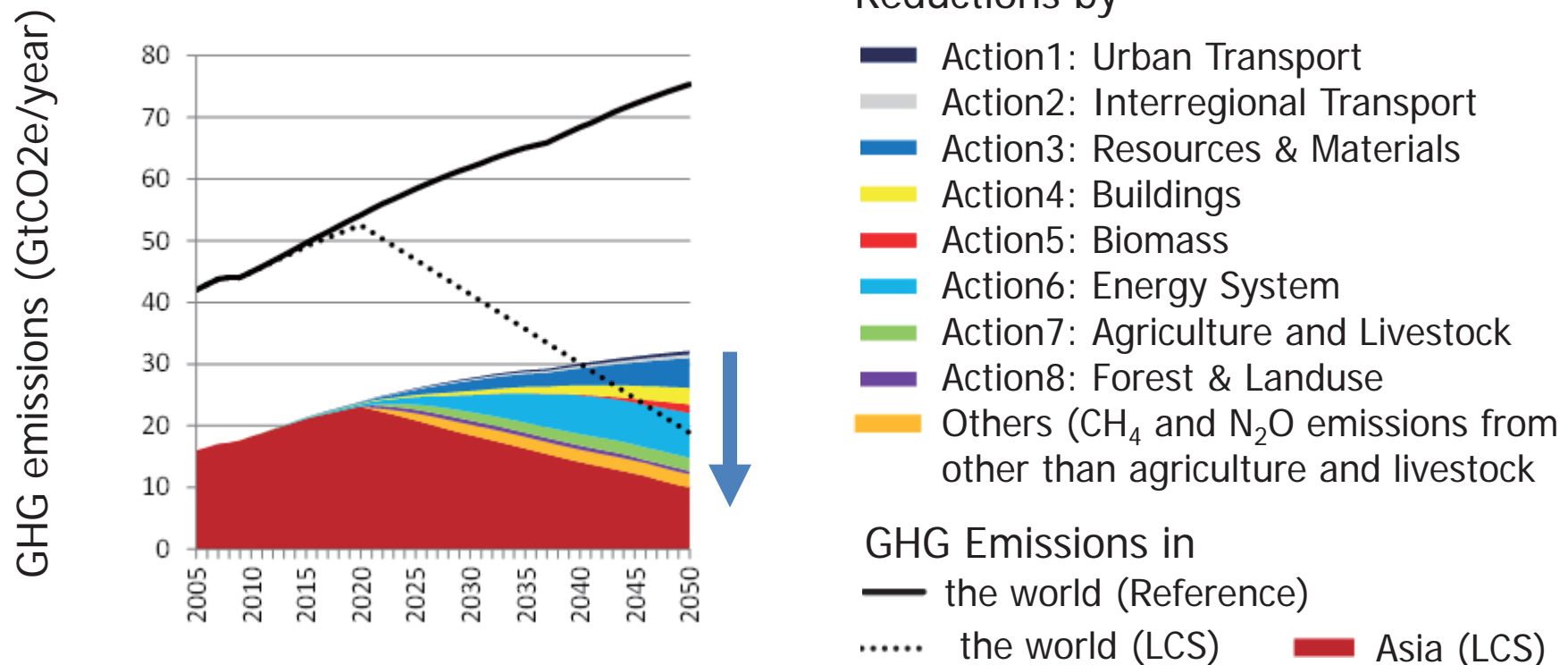


Modeling Sustainable Low-Carbon Asia

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

There is potential to reduce GHG emissions by 69% compared to the reference case in Asia

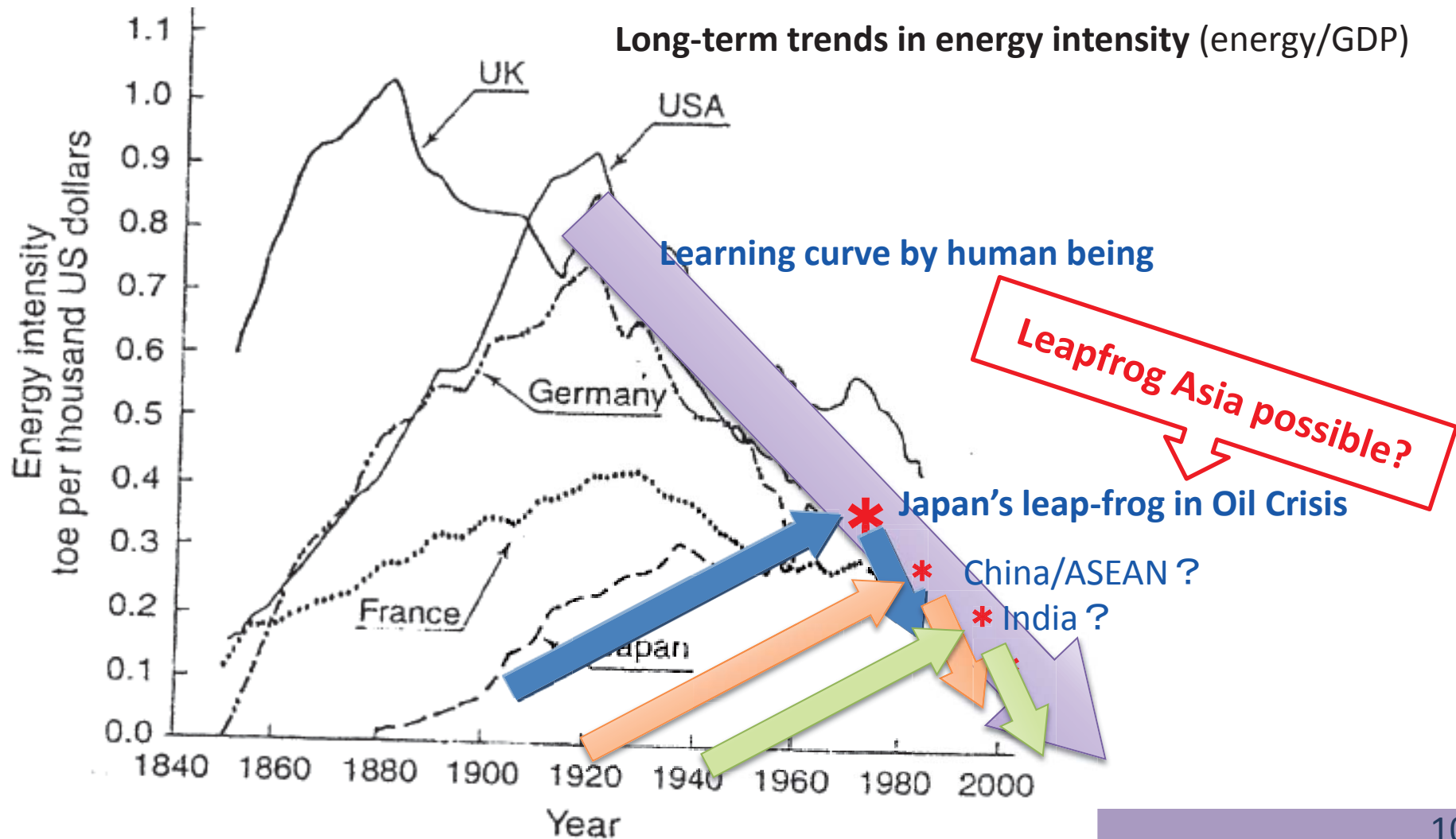
- The global emissions will become 1.8 times larger compared to the 2005 level and emissions in Asia will be doubled under the reference scenario.
- It is feasible to reduce GHG emissions in Asia by 69% by introducing ten actions and Others (CH₄ and N₂O emissions from other than agriculture and livestock) appropriately compared to the reference scenario in 2050.



Calculated by Asia Integrated Assessment Model (AIM/NIES)

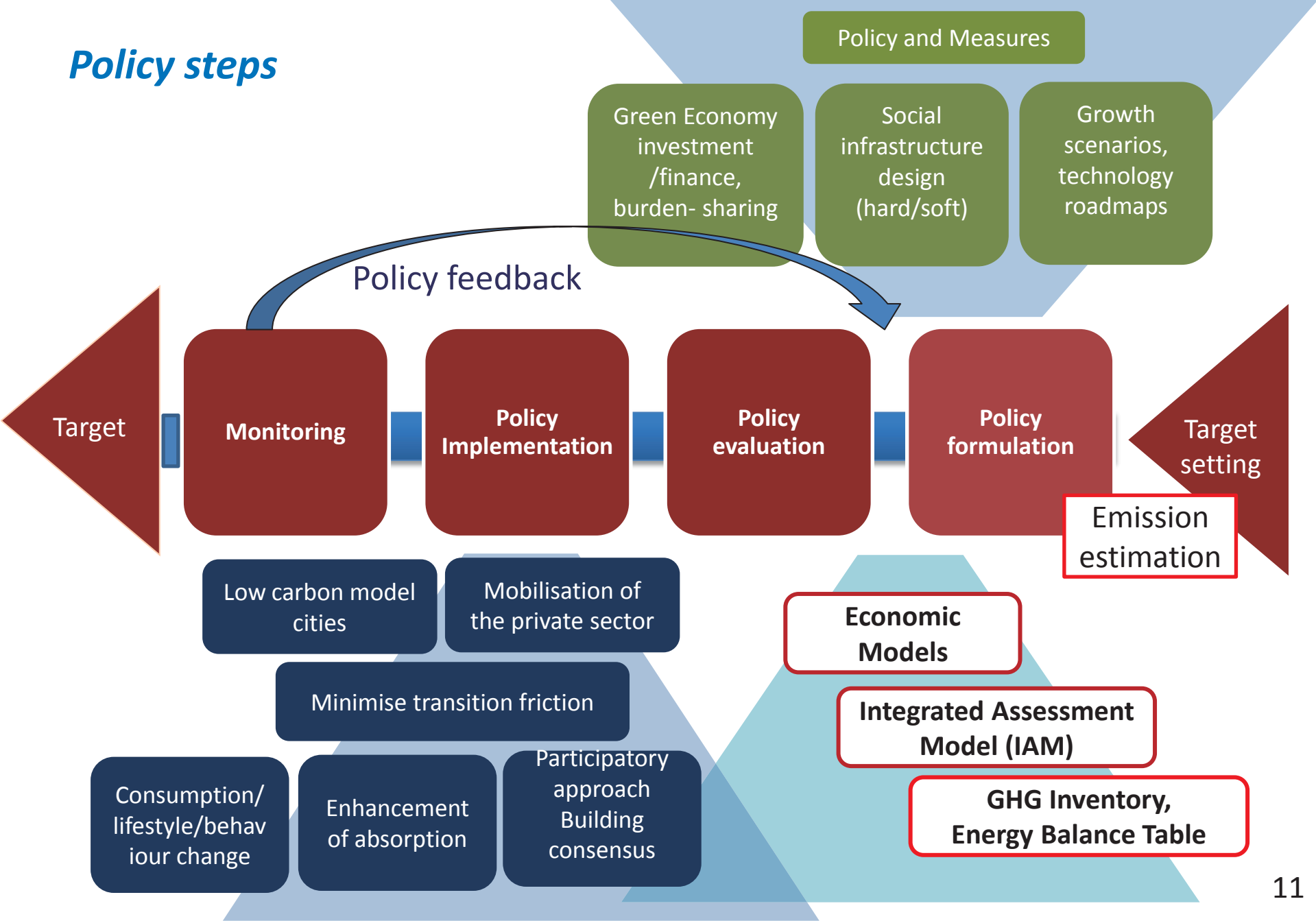
気候変動をテコとしたアジアの一足飛び発展は可能か

Opportunities for Asia: Leveraged by climate change

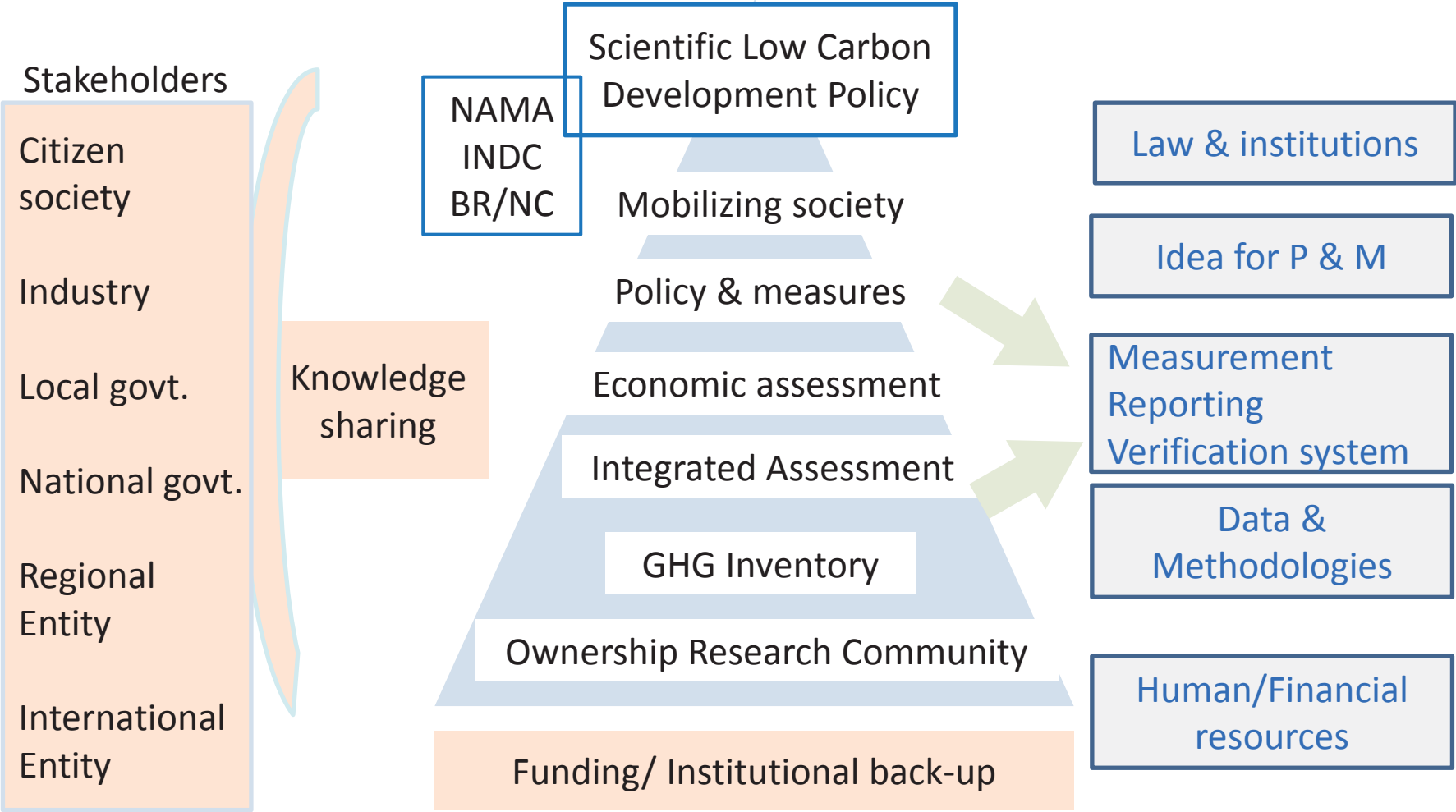


Systematic Steps for formulating low-carbon development policy

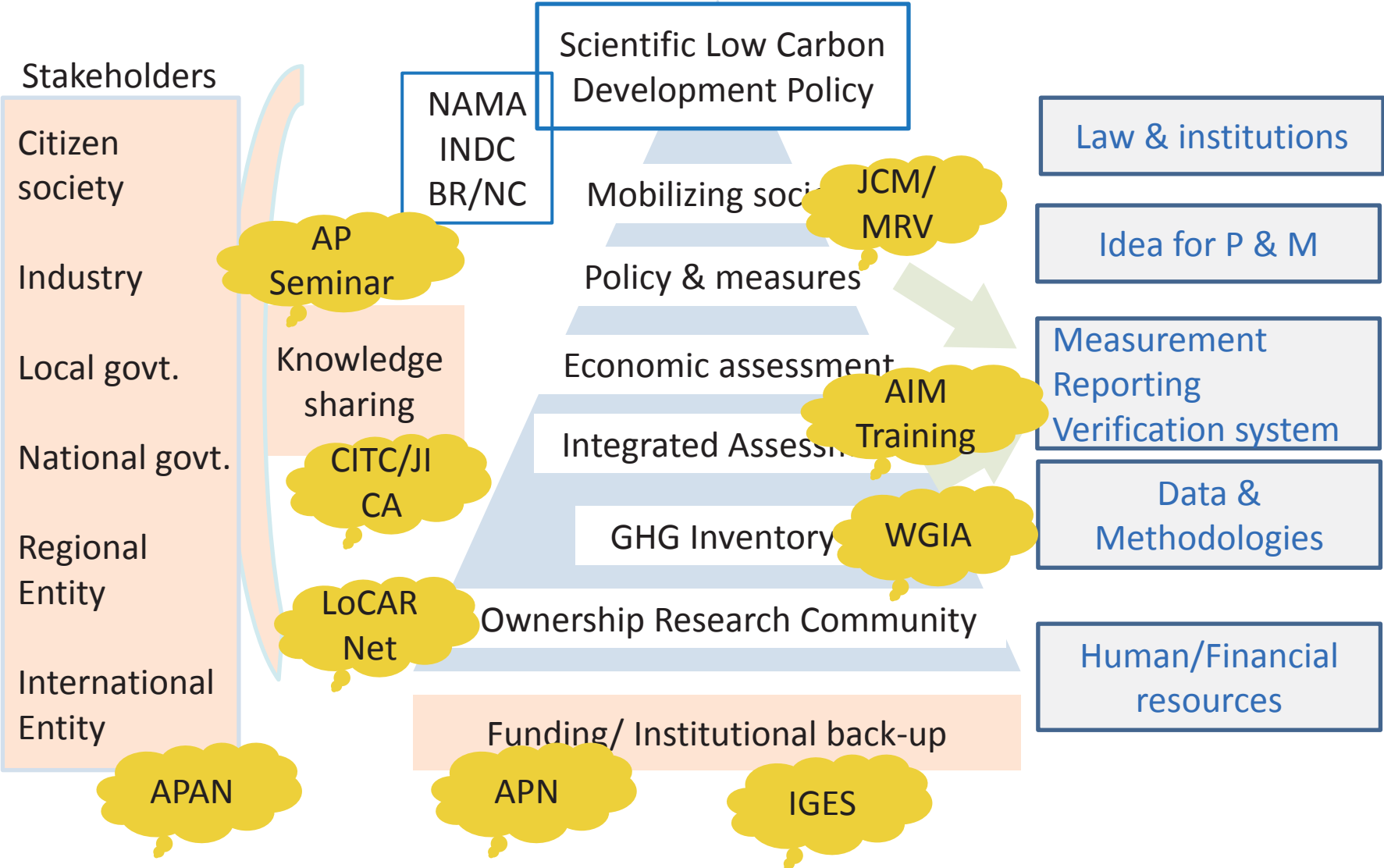
Policy steps



Elements Supporting Scientific Low Carbon Development Policy



Elements Supporting Scientific Low Carbon Development Policy



Japan's comprehensive, continuous, and systematic support for science-based climate policy development in Asia

| Objectives | Activities | Contents | Est. since | | outputs |
|---|---|---|-------------------------|---|---|
| Knowledge Sharing | Tokyo Conference on the Global Environment and Human Response toward Sustainable Development (UNEP and Japanese Govt.) | Advisory meeting on global climate change | 1989 | | |
| | Asia-Pacific Seminar on Climate Change (AP Seminar) | <ul style="list-style-type: none"> - Knowledge sharing on IPCC results and UNFCCC progress - Support for developing plans addressing CC | 1991 | <ul style="list-style-type: none"> - 23rd meeting in 2014 - Rotating presidency | Approx. 800 participants in total |
| <ul style="list-style-type: none"> - Formulation of basic grounds in research - Common research funds | The Asia-Pacific Network for Global Change Research (APN) | <ul style="list-style-type: none"> - Promoting joint research and capacity development in Asia - Low carbon initiatives - Climate Adaptation Framework | 1996 | Funds: 400 million yen (includes 120 million yen for new CAF projects in 2014) | Approx. 225 projects |
| | <ul style="list-style-type: none"> - Institute for Global Environmental Strategies (IGES) - Activities as Regional/International Environment Research organisation at the initiative of PM in Japan | <p>(approx. 100 researchers)</p> <p>IPCC /NGGI/TSU</p> | <p>1998</p> <p>1999</p> | <p>Constant research</p> <p>Global standard</p> | <p>White Paper, ISAP (annual conference)</p> <p>Many Joint researches in Asia</p> |

Japan's comprehensive, continuous, and systematic support for science-based climate policy development in Asia – 2 (Cont'd)

| Objectives | Activities | Contents | Est. since | | outputs |
|---|--|--|-------------|--|---|
| Capacity development in forming the basis of climate policy | Workshop on Greenhouse Gas Inventories in Asia (WGIA) | <ul style="list-style-type: none"> - Improving accuracy of GHG inventories in Asia - Sharing knowledge and experience amongst researchers and policymakers - Promoting regional cooperation | 2003 | <ul style="list-style-type: none"> - Annual meeting - 12 times in total | Approx. 900 participants in total |
| | Asian Pacific Integrated Model (AIM) Int'l WS / Training workshop | <ul style="list-style-type: none"> - Training on integrated models for developing climate mitigation policies - Organised by NIES and Kyoto Univ. | 1995 / 1997 | 19 times (annually) / irregular, more than 10 times | Approx. 500+ participants in total / Approx. 100+ in total |
| | Asia Pacific Adaptation Network (APAN) | <ul style="list-style-type: none"> - Asia-Pacific Climate Change Adaptation Forum - Sub regional/thematic meetings by APAN nodes | 2009 | - Biennial meeting | Approx. 1,850 participants (1 st -3 rd forum) |
| | Low Carbon Asia Research Network (LoCARNet) | Formulating research community, Policy Dialogues between researchers and policymakers on climate policy, knowledge-sharing | 2012 | <ul style="list-style-type: none"> - 3rd annual meeting in 2014 - 20+ WSs | Approx. 250 participants ~800 part |
| Climate Policy and technical training | Support for the Climate Change International Technical and Training Center (CITC Thailand) | <ul style="list-style-type: none"> - Training on climate policies for policymakers in central/local govt., practitioners, businesses mainly in ASEAN countries - TGO established CITC by receiving support from JICA | 2014 | Starting from Oct. 2014 | |

Asian Low Carbon Development Scenario Making and Capacity Building Activity Since 1991



**AIM Training WS since 1991
for integrated policy making**

15th AIM International Workshop on 20-22 February 2010



Asian Modeling Meeting at Tsukuba on 17-18 September 2009



1st AIM International Workshop on 1-2 February, 1996



17th AIM International Workshop, 17-19, February 2012



AIM Training Workshop on 27-31 October 2008



14th AIM International Workshop on 14-15 February 2009



16th AIM International Workshop on 19-21 February 2011



AIM Training Workshop on 16-20 October 2006



AIM Training Workshop on 2-14 August 2010

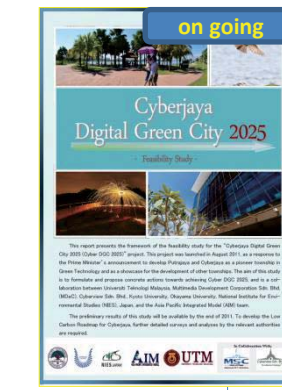
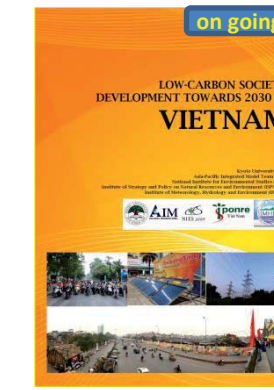
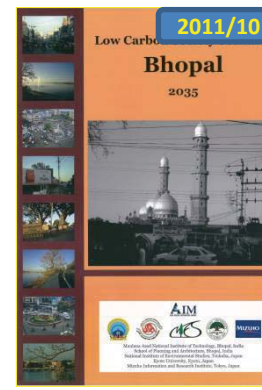
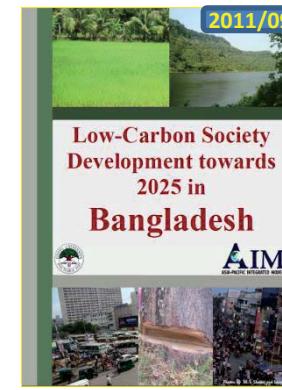
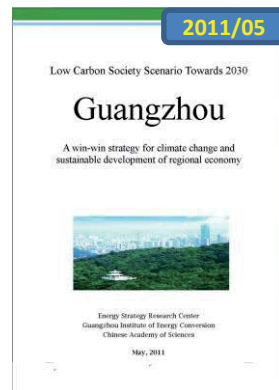
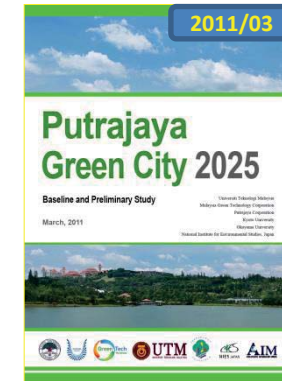
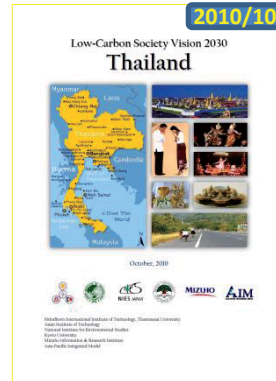
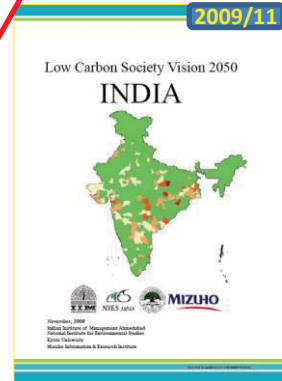
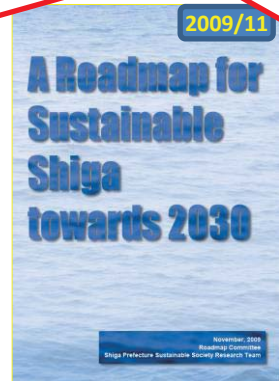
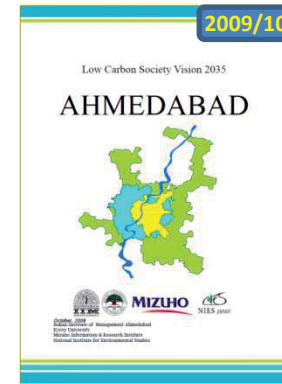
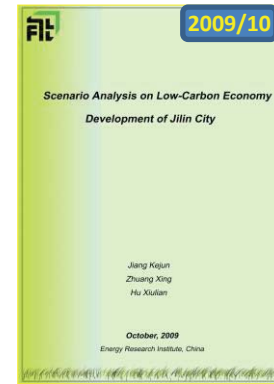
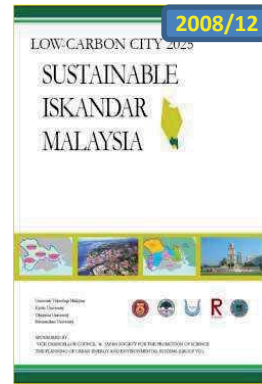


AIM Training Workshop on 22-26 October 2007

Brochures introducing national and regional specific LCD studies

Communication and feedbacks of LCD study to real world

Low Carbon National/City Scenarios applying Integrated Assessment Model (AIM)



LoCARNet: Low Carbon Asia Research Network

An open network of researchers & research organizations, as well as like-minded relevant stakeholders that facilitates the formulation and implementation of science-based policies for low-carbon development in Asia.

Lessons learnt from activities and outcomes from dialogues between Researchers and Policy-makers in Asia



Synthesis Reports: <http://lcs-rnet.org/publications/index.html>



Seven Asian priority topics discussed: “GHG inventories as bases”; “policy-making processes and use of integrated assessment models”; “land use and forestry”; “low-carbon cities”; “local level practices/ decisions / initiatives”; “institutionalization of low-carbon green growth”; and “technology for leapfrogging”.

2012 October, Bangkok (LoCARNet 1st Annual Meeting)

planning ⇒ 2014 Nov. 24-26 Bogor, Indonesia (LoCARNet 3rd Annual Meeting)

LoCARNet Workshops and consultations in Asian countries

Indonesia

Policy-Research Dialogues

Low Emission Development Scenarios (LEDs) of Energy Sector: Preliminary Result of Asia-Pacific Integrated Modeling (AIM) exercise (June 2012)

- Indonesia Workshop: Research Cooperation on "Development of Low-Carbon Strategies" (Feb. 2013)



Cambodia

Cambodia Workshop: A Systematic and Quantitative Design of Low Carbon Development Plan for Cambodia (April 2014)



Vietnam

Vietnam Workshop: Low Carbon Society in Vietnam (April 2013)



Thailand

- LoCARNet 1st Annual Mtg. (Oct. 2012)
- Development of Asia Low-Carbon Strategy and Roadmap 1st Kick off Meeting (Oct. 2012)



Malaysia

Int'l workshops in Iskandar, Malaysia (2012-2013)





2 degree target: huge challenge and chance of Asia as front-runner to LC world

Knowledge sharing among countries for science based low development planning is inevitable

Japan's comprehensive, continuous and systematic support for science-based climate policy development offer good forum in Asia

Research background with country's ownership is indispensable to Low carbon development



Thank you very much for your attention!



LCS-RNet/LoCARNet Secretariat
<http://lcs-rnet.org/index.html>

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