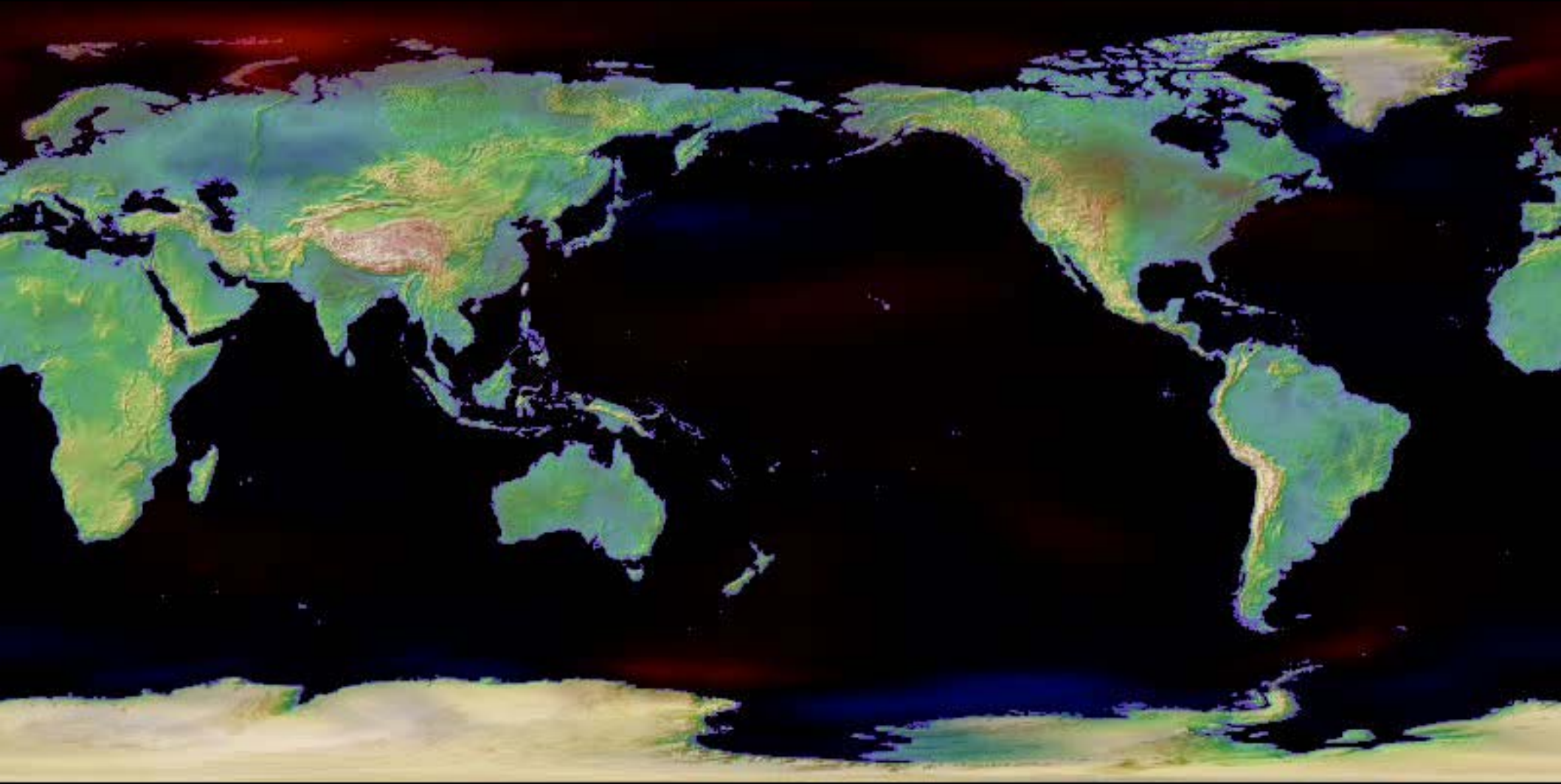


**Global Challenges towards a Low Carbon Society (LCS)
through Sustainable Development (SD)
Introduction**

**Nov. 8, 2006
UNFCCC COP12/MOP2
UNON, Nairobi**

**Shuzo Nishioka
National Institute for Environmental Studies, Japan**

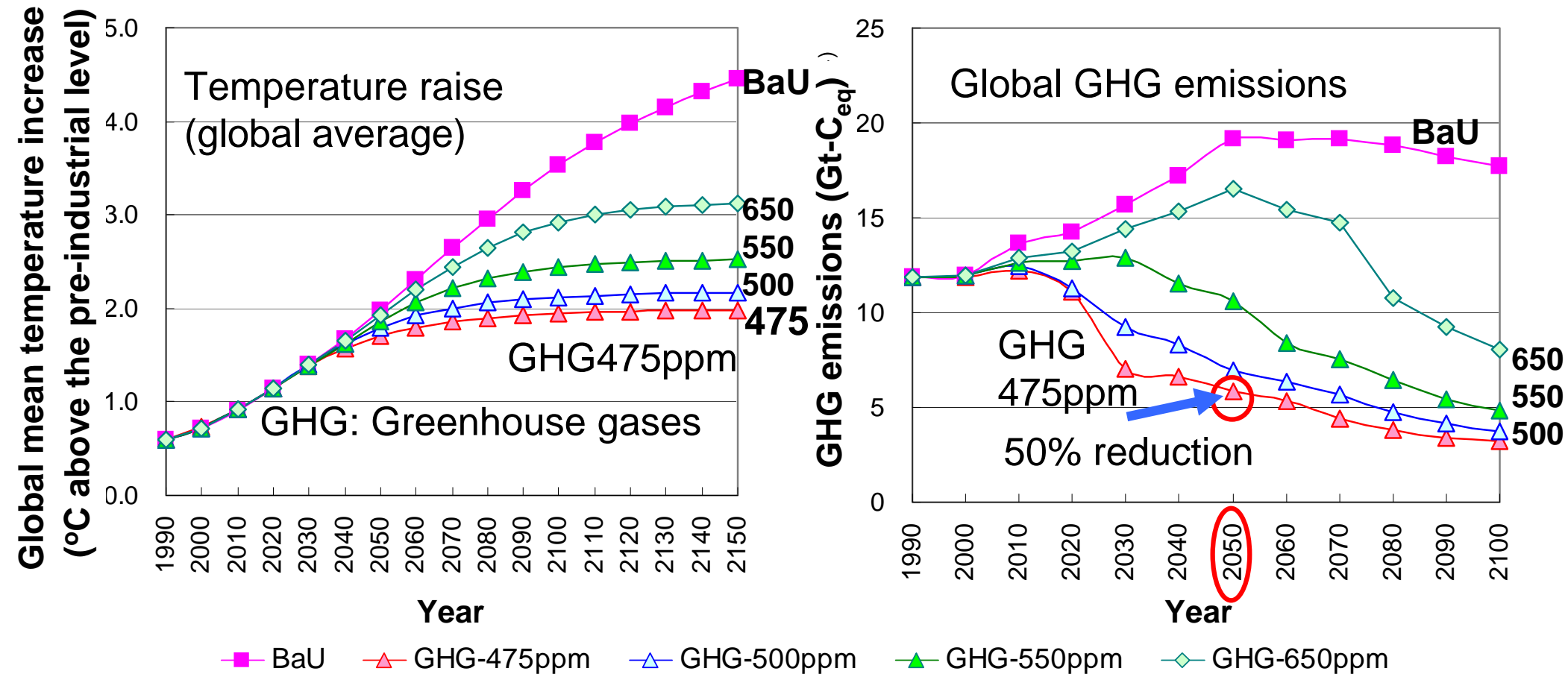
Surface Air Temperature Change (1900=0 °C)



1950



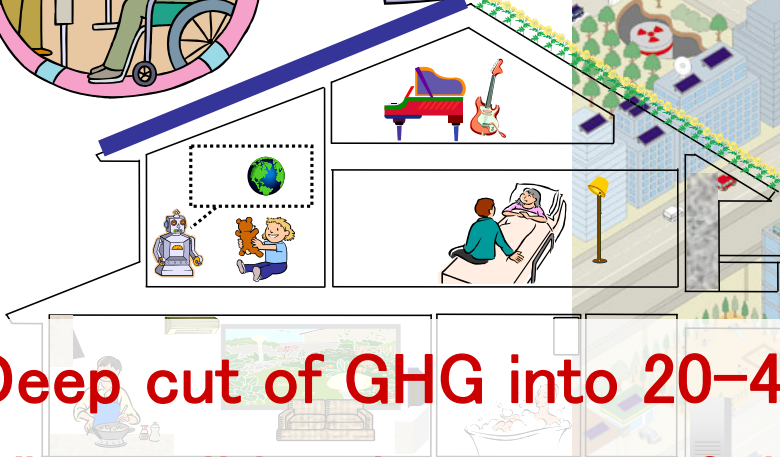
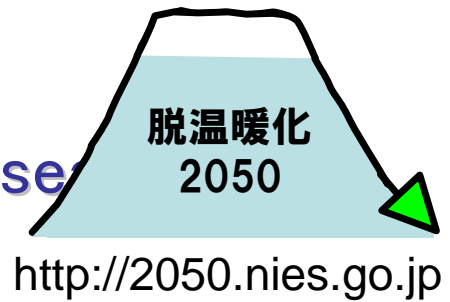
“Low-carbon societies are necessary to avoid dangerous climate change.”



Relationship between human-induced GHG emissions, atmospheric GHG concentration, and increase in global mean temperature. (Calculated by AIM/Impact[policy] Model)

Low Carbon Japan: 2050

NIES research project (2004–2008) 60 research
Global Environmental Research Programme



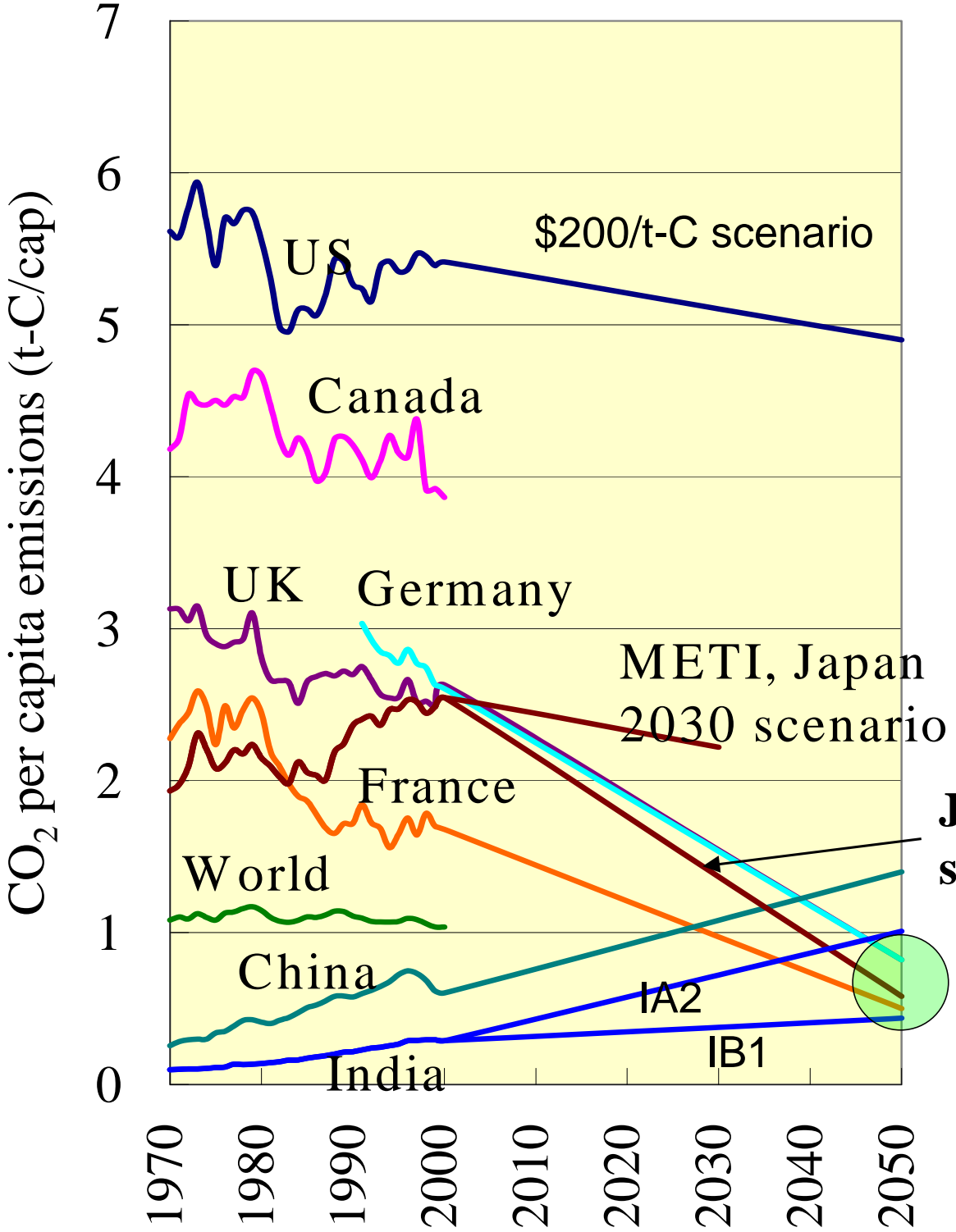
Deep cut of GHG into 20–40% by 2050

What will be the image of the LC society?

How to attain the goal?

How to change energy demand /supply structure?

Current per capita CO₂ emissions and Target



US: delay for tech development, global warming business

EU: Initiatives toward LCS
Japan: Need long-term vision

Developing countries: earlier guidance toward LCS is key

Japan 2050 scenario

Target for Low Carbon Society

Shuzo Nishioka, Junichi Fujino;
NIES COP11 and COP/MOP1 side event
Global Challenges Toward
Low-Carbon Economy (LCE), Dec.3, 2005

The first workshop on Japan–UK Joint Research Project “Developing visions for a Low Carbon Society (LCS) through sustainable development” on June 2006, Tokyo

54 participants from 19 countries and 6 international organizations;
Asia: Japan, China, India, Thailand, Taiwan (China)
Africa: South Africa, Nigeria
Europe: UK, France, Germany, Denmark, Spain, Netherlands, Russia
Latin America: Brazil, Mexico, Chile
North America: US, Canada



A second workshop will be held in UK, June 2007

Toward a Low-Carbon Society, we need to

- 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 stabilise atmospheric concentrations of carbon dioxide and other greenhouse gases at a level that will avoid dangerous climate change through deep cuts in global emissions;
- demonstrate high levels of energy efficiency, use of low-carbon
- energy sources and production technologies, and sustainable land use practices;
- adopt patterns of consumption and behaviour that are consistent with low levels of GHG emissions.

Programme:

Aligning Climate Change and Sustainable Development Policies

PR. Shukla (Indian Institute of Management, India)

Modeling LCS to Identify Trend-Breaking Options

Junichi Fujino (NIES, Japan)

National and Global Cooperation to Achieve LCS through SD

David Warrilow (Defra, UK)

Panel discussion :

SD-PAMs

Stanford Mwakasonda (University of Cape Town, South Africa)

Renewable Energy

Martin Weiss (Federal Environmental Agency, Germany)

Technology RD&D

Jiang Kejun (Energy Research Institute, China)

Comment

Robert Dixon (IEA) Jonathan Pershing (WRI)

Open Discussion