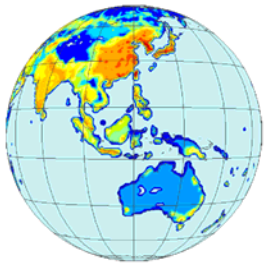
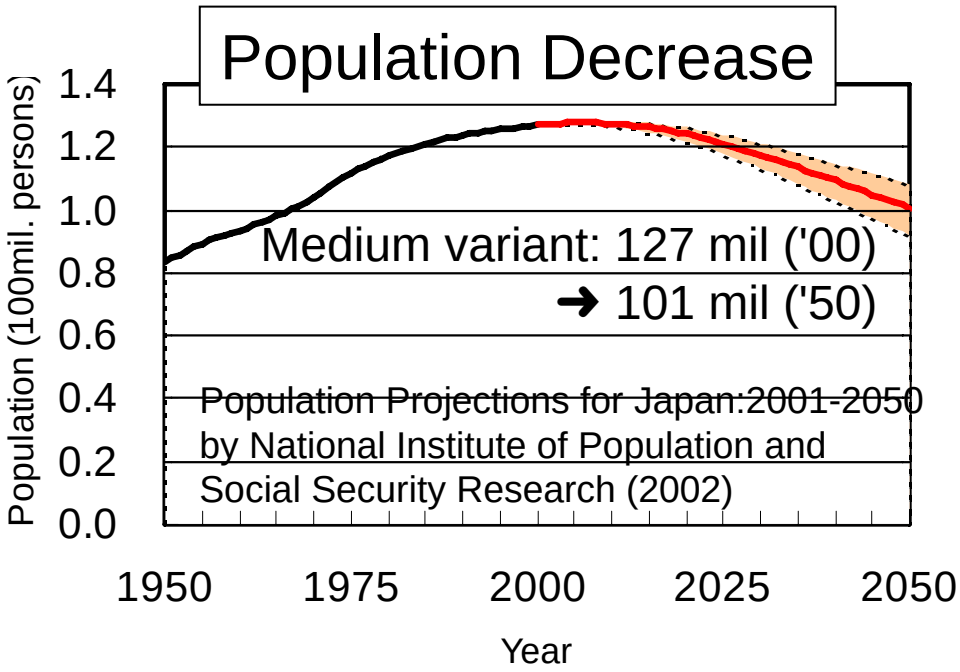
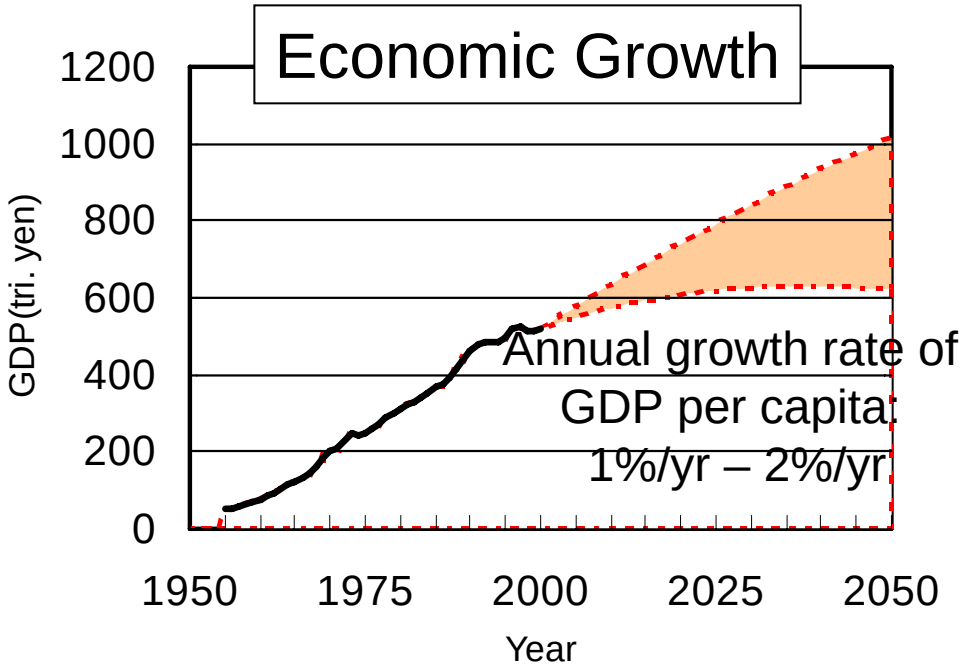


COP11 and COP/MOP1 side event
Global Challenges Toward Low-Carbon Economy
-Focus on Country-Specific Scenario Analysis-
December 3, 2005 Montreal

Development of Japan Low Carbon Society Scenarios toward 2050

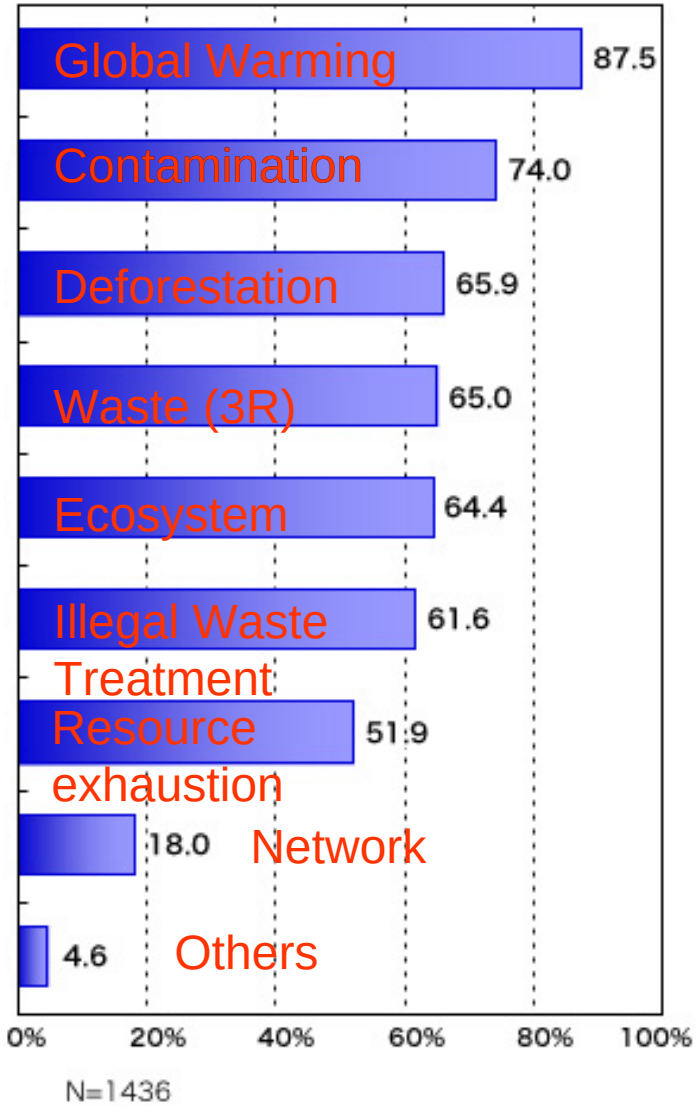
Junichi FUJINO (fuji@nies.go.jp)
National Institute for Environmental Studies (NIES)



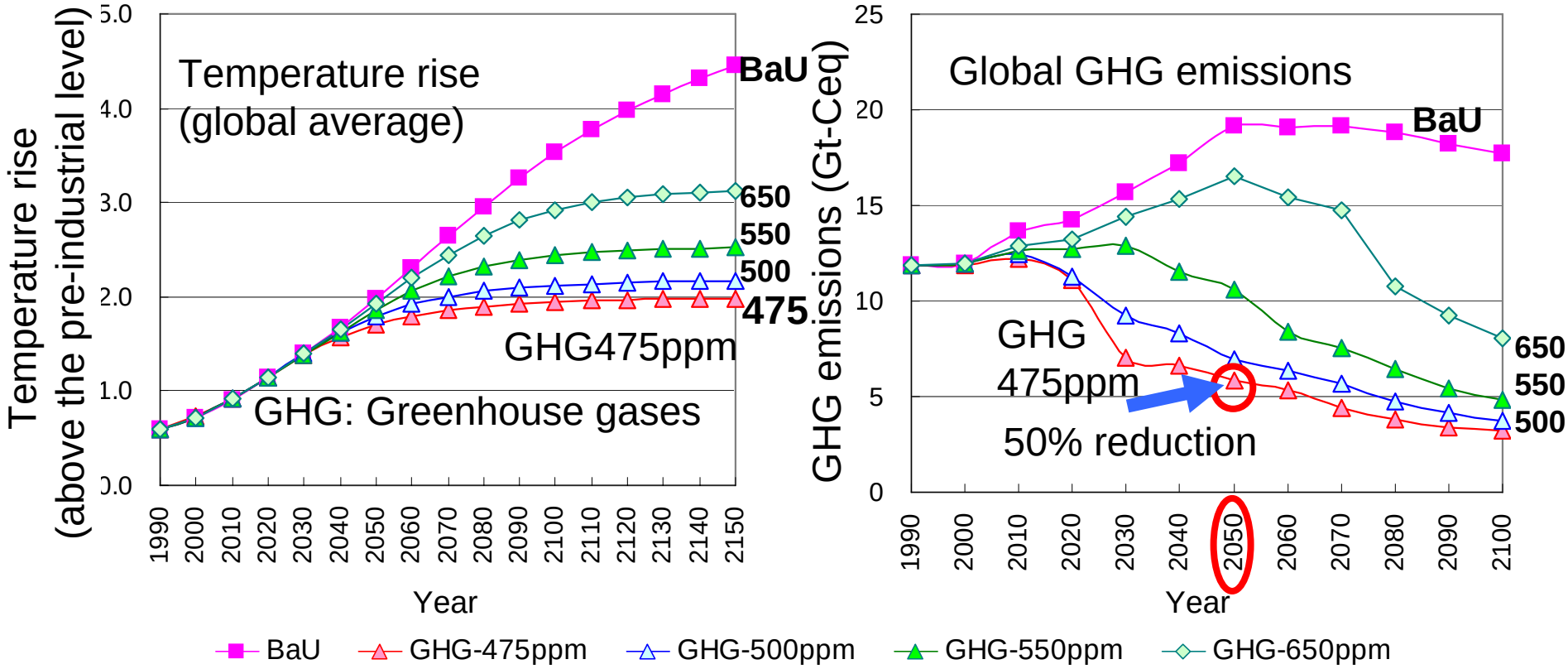


Survey of citizens on environmental concerns

(Marks allocated)



http://nikkeibp.jp/style/biz/enquete/051021quick_eco/



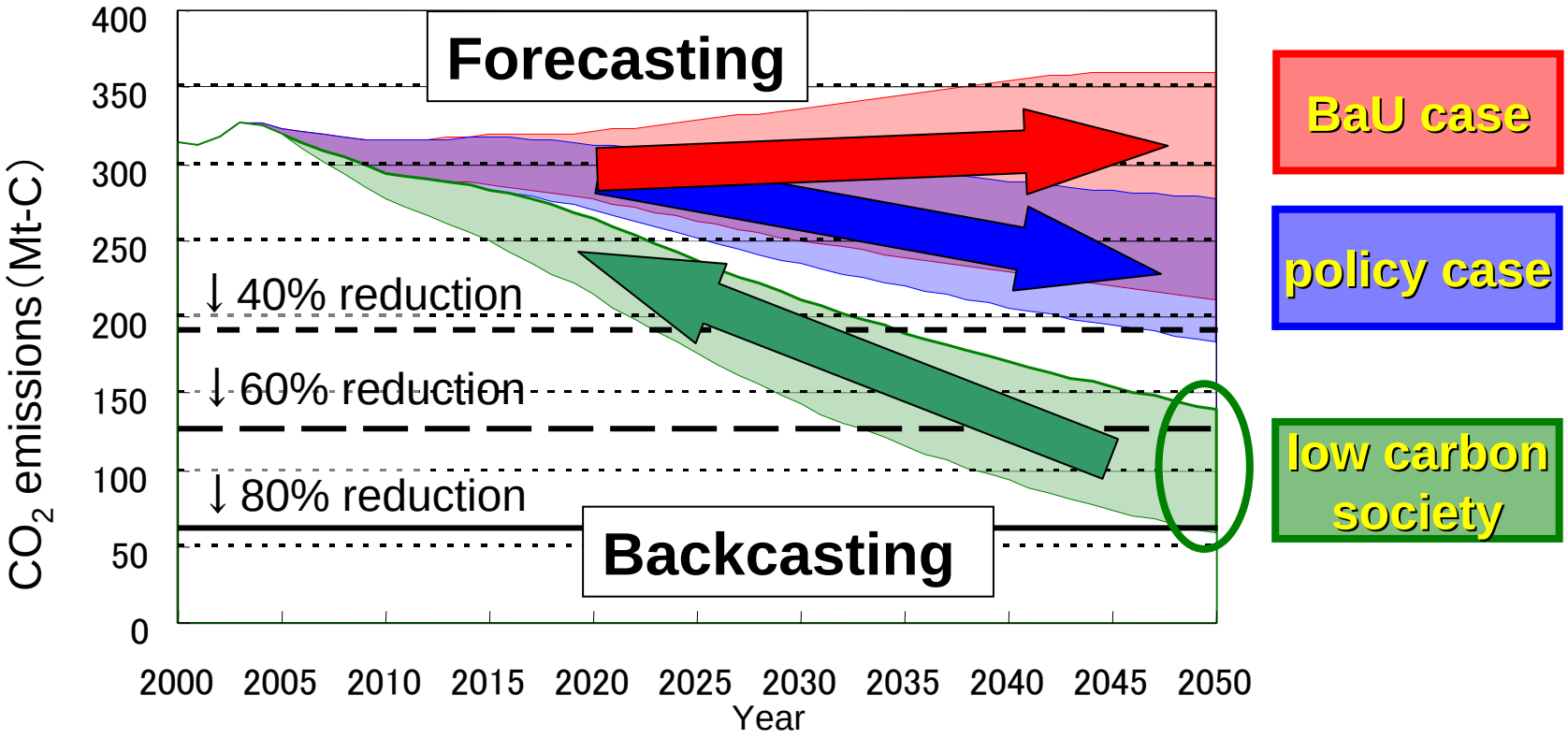
•It is estimated that around 50% GHG reductions in 2050 are required to control temperature rise below 2ºC

•Japan may require more reduction (60-80%).
Other country-level 2050 scenarios have been studied (UK 60%, Germany 80%, France 75%, and so on).

•Impacts will occur even in 2ºC temp control.
•Adaptation is necessary.

Calculated by AIM/Impact[policy] Model

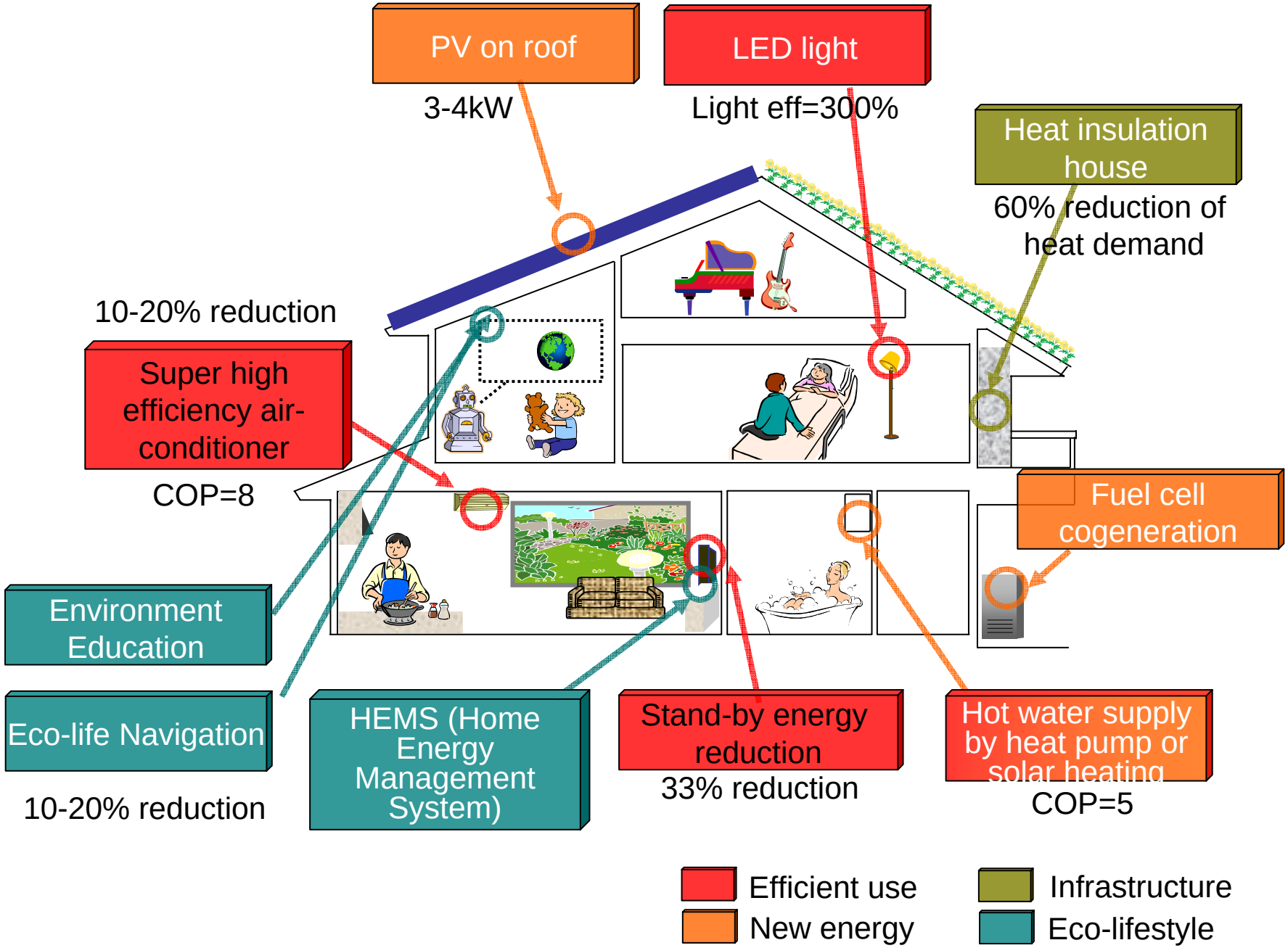
Path toward Low Carbon Society, Japan

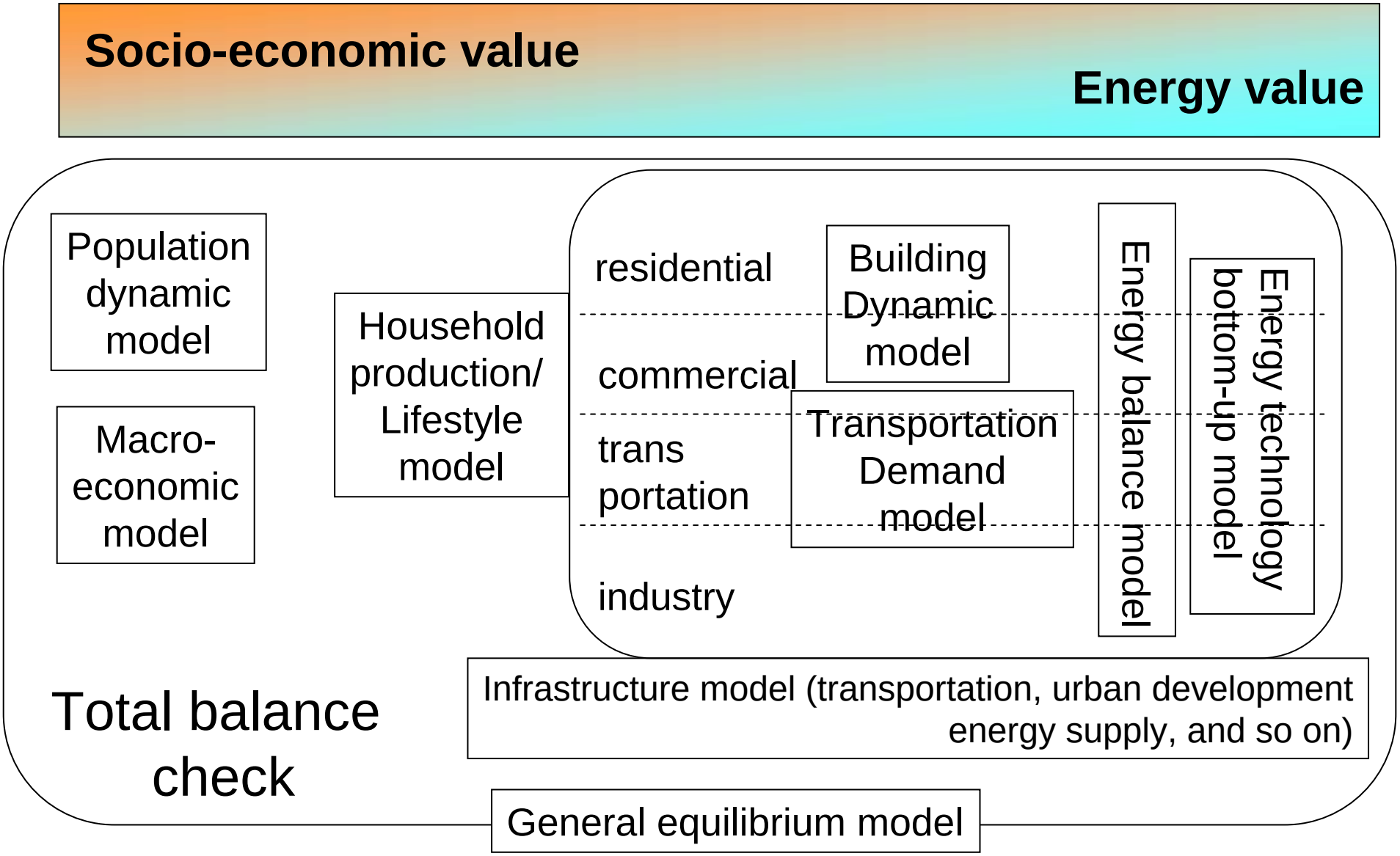


Energy Saving devices
Energy Supply change

Urban System Change
Industry Structure Change
Information Technology
Renewable energy
Consumption Behavior

Depict Future Image: Residential sector in 2050

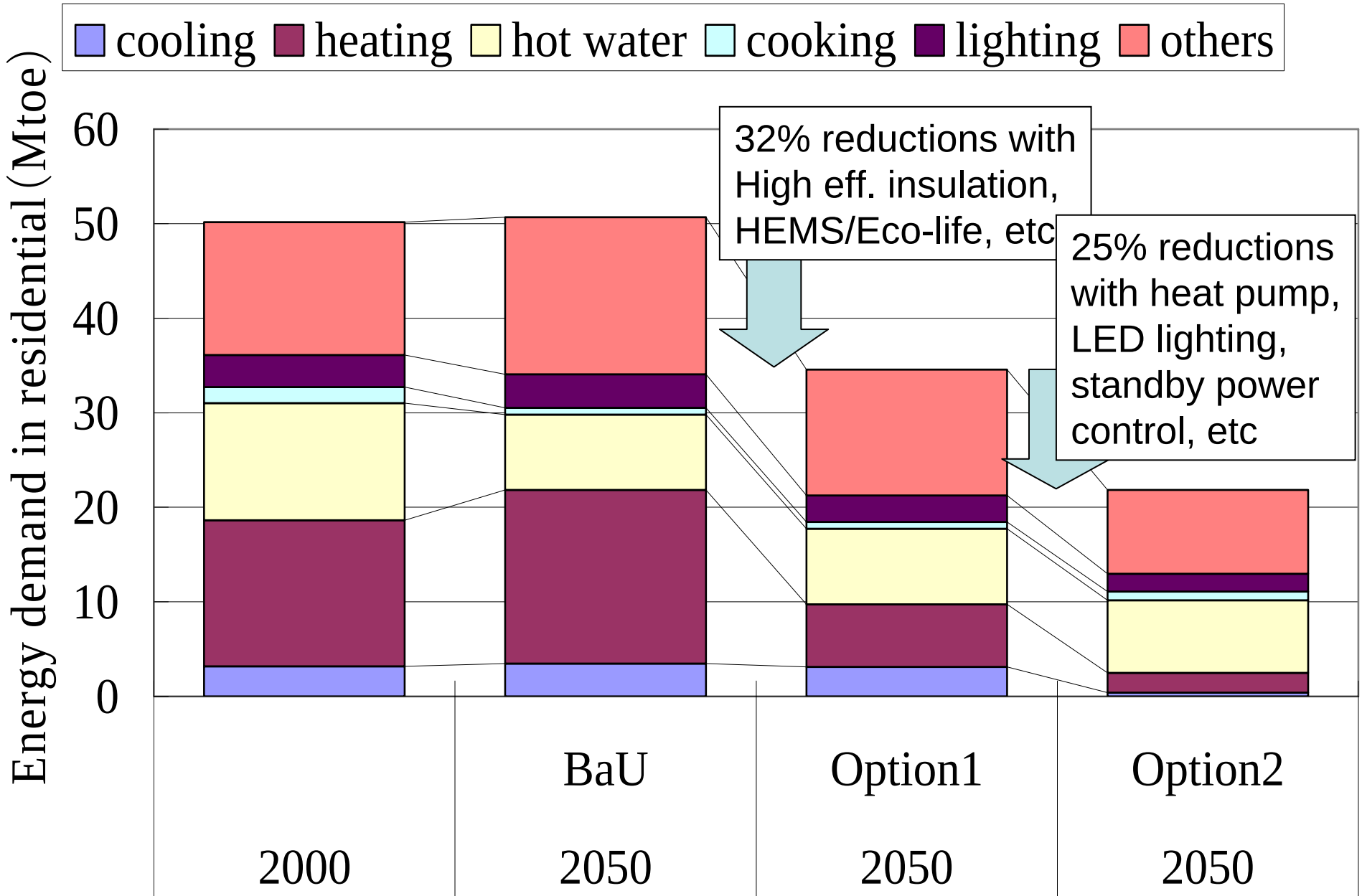


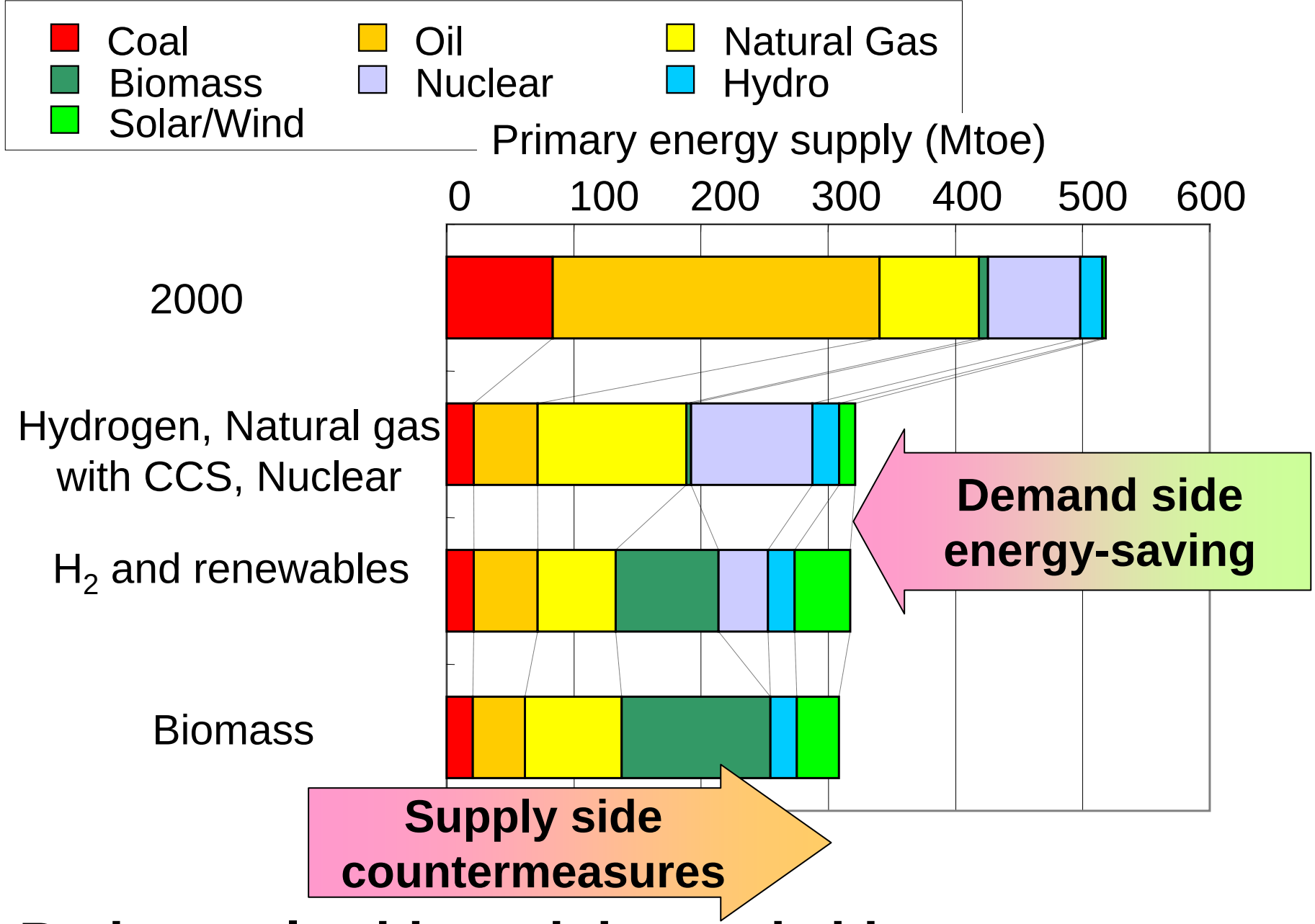


AIM Models for 2050 scenario development

(AIM: Asia-Pacific Integrated Model)

Energy demand in residential sector, 2050





Both supply side and demand side countermeasures are required to achieve 70% CO_2 reduction by 2050

Research project on Japan Low-carbon society scenario

studied by 60 Japanese researchers

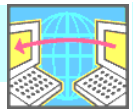
Green buildings
Self-sustained city
Decentralized services

Eco awareness
Effective communication
Dematerialization

Next generation vehicles
Efficient transportation system
Advanced logistics

Urban structure

ICT-Society



Transportation system

Industrial Structure

Technology

Institution

Management

3. Propose GHG policy to realize low-carbon society

Social system Reform to introduce countermeasures

2. Build visions of Japan Low-carbon society 2050

1.GHG Reduction Target Setting

Reduction target

GHG emissions

1990 2000 2008 2010 2012 2020 2030 2040 2050

Kyoto protocol

Most of current infrastructure rebuilt

[FY2004-2006(+2years), Global Environmental Research Program, MOEJ]

Key messages

1. **Large amount of GHG reductions are required.**

2. **Image of low carbon society is necessary to achieve drastic GHG reductions.**

3. **Both supply-side and demand-side reductions are required. Model studies are necessary to find consistent path toward 2050 low carbon economy.**

4. **It's time to action. It takes time to change social system, infrastructure…**

5. **Our experience can apply to Asia-Pacific countries, other countries.**

Further information: http://2050.nies.go.jp/