Research for a World in Transition:
IIASA's Strategy for the Next Decade

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Schloss Laxenburg, Austria

Home of IIASA since 1972

IIASA: A Global Research Institute

- International
- Independent
- Interdisciplinary
- Integrated

Systems Analysis

IIASA Statistics

- 150 Researchers (100 FTEs)
- 100 other staff members
- EUR 16.4 million budget
- 50/50 membership fees and external funds
- 17 national members
- 50% of world population

Vision

IIASA will be the world leader in systems analysis to find solutions to global problems for the benefit of humankind

IIASA's Strategy for the Next Decade

- Focus on a few global problems
- Emphasis on policy relevance
- Innovation in systems analysis
- Increased capacity building

Global Challenges

1.02 billion people are undernourished worldwide in 2009 (FAO)

FOOD

1.1 billion people have inadequate access to water (UNHDP)

WATER

1.6 billion people are without access to electricity

ENERGY

25,000 children die each day due to poverty (UNICEF)

POVERTY

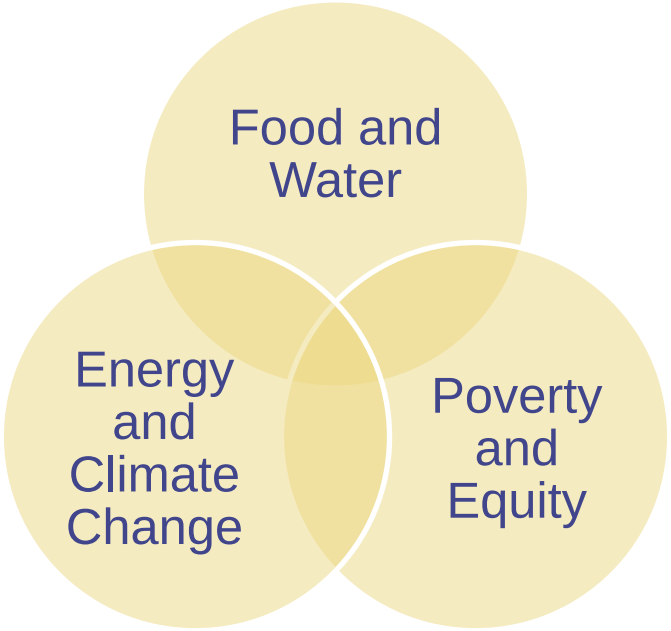
80% of humanity lives on less than $10 a day (World Bank)

EQUITY

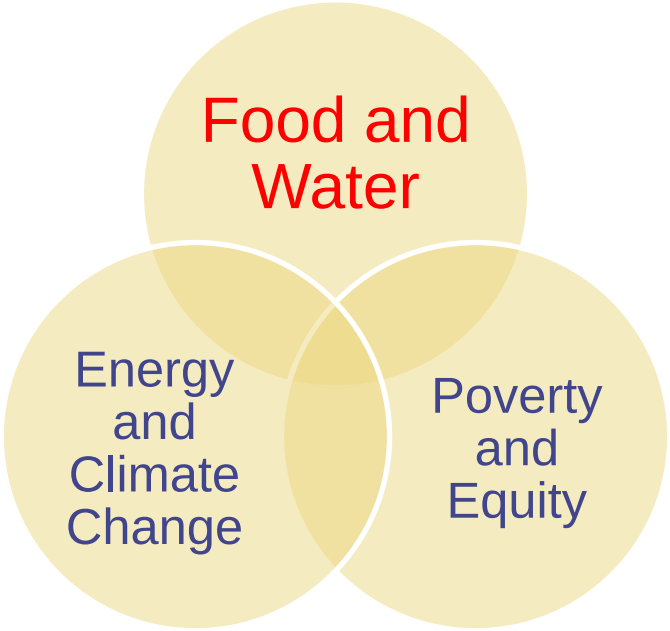
Average temperatures predicted to increase by 1.1-6.4 °C by 2100 (IPCC)

CLIMATE CHANGE

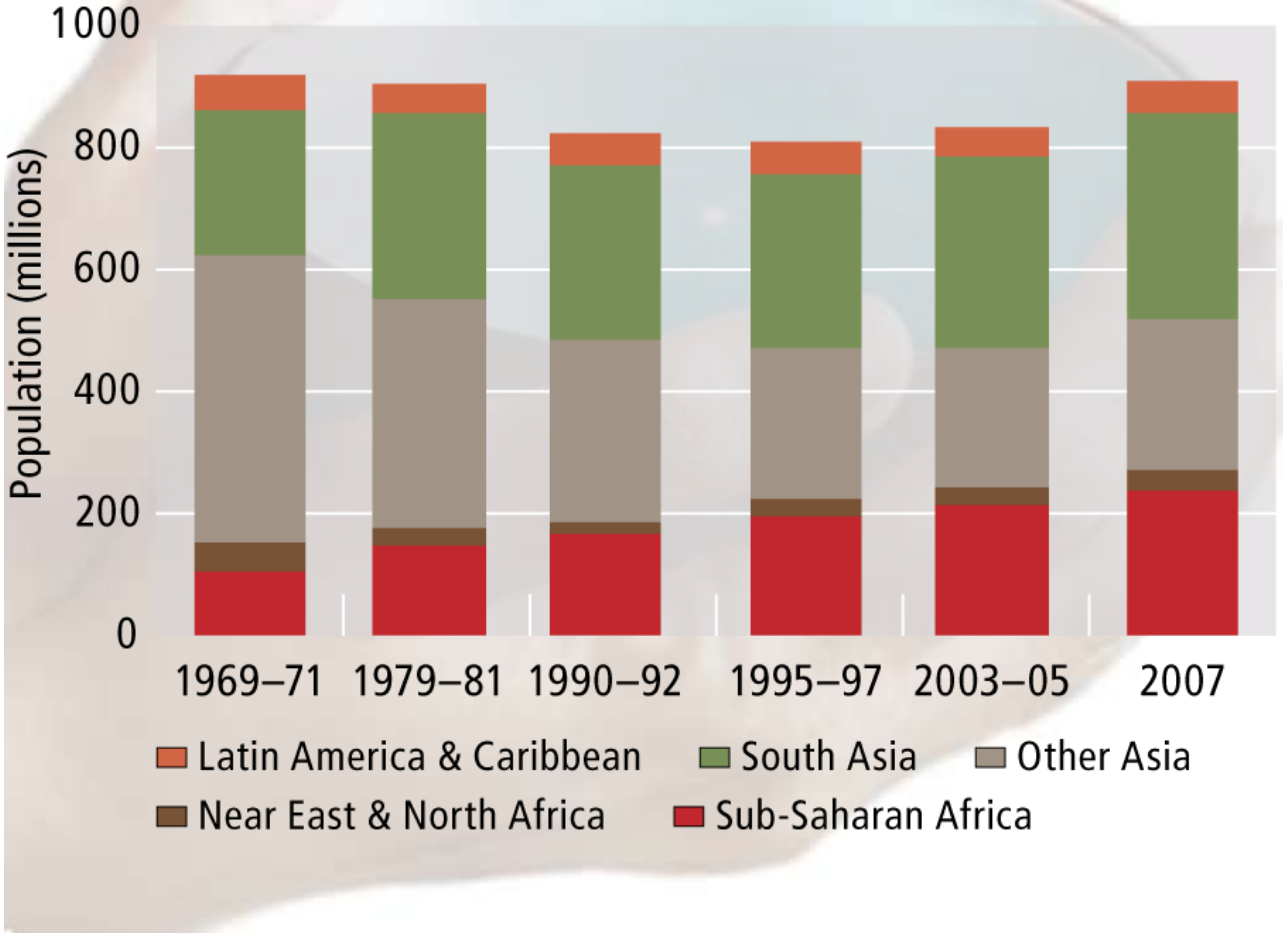
Research for a Changing World



Research for a Changing World

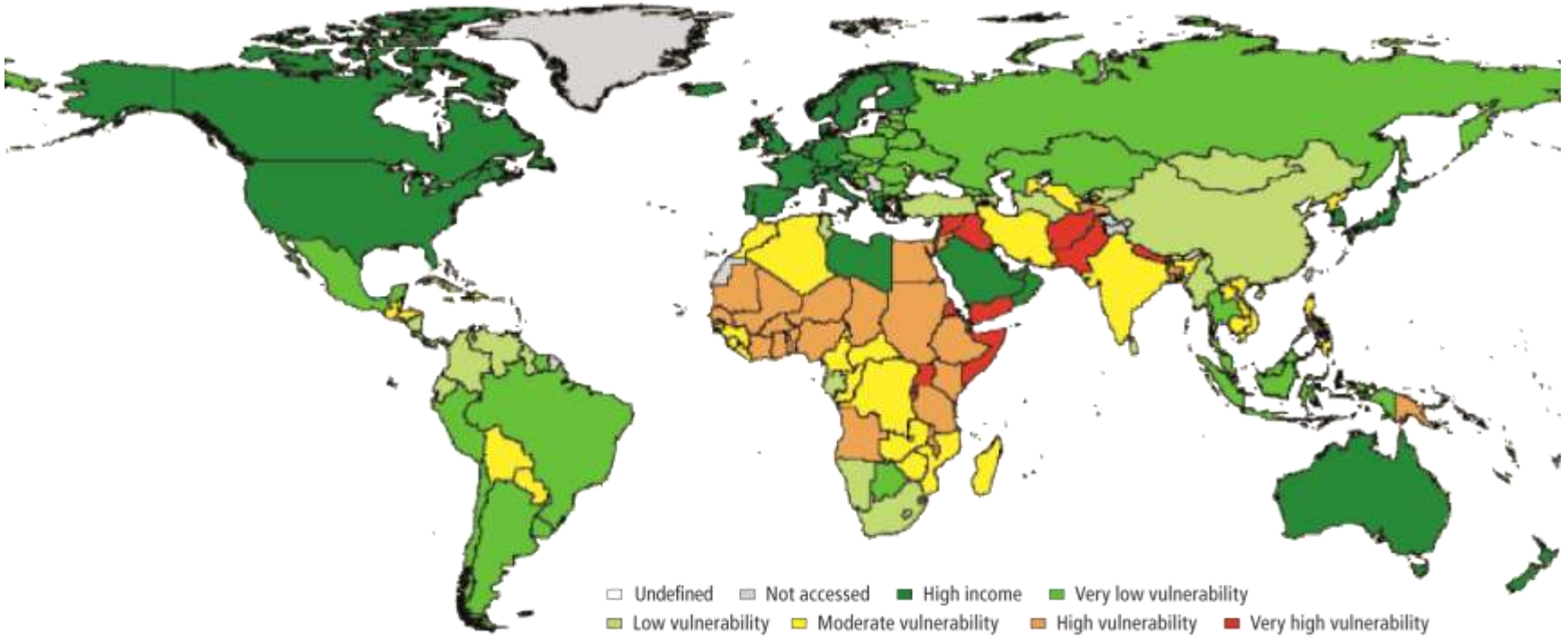


Undernourished People in Developing Countries, 1969 – 2007



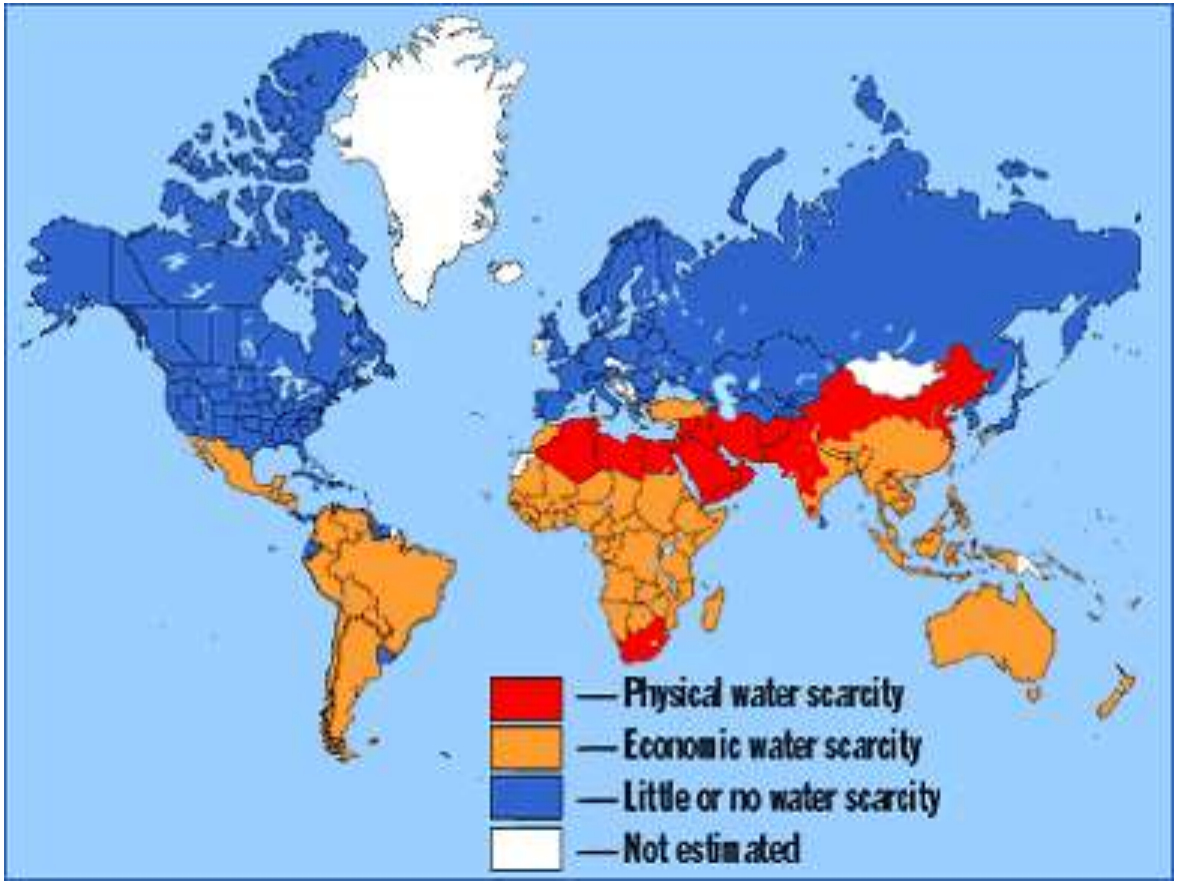
Source: FAO

Countries Vulnerable to Food Insecurity



Source: IIASA

Water Shortages



Source: International Water Management Institute

Climate Change, Food, and Water

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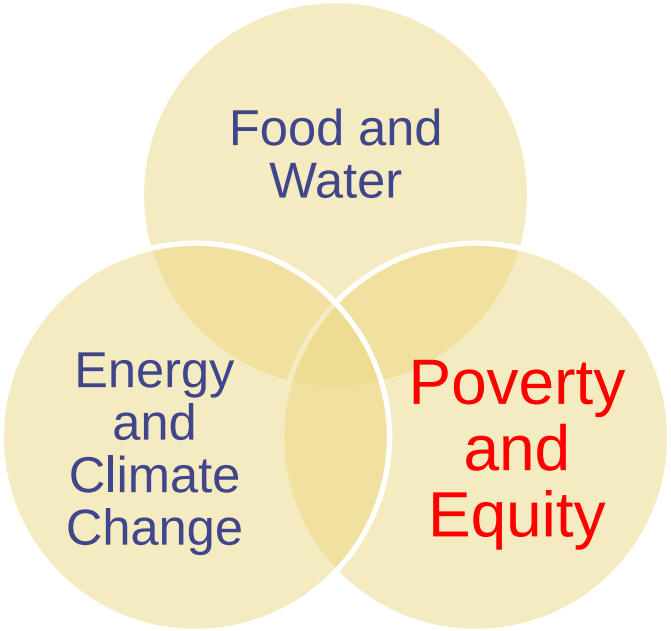
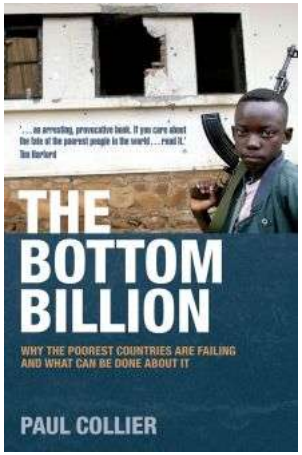
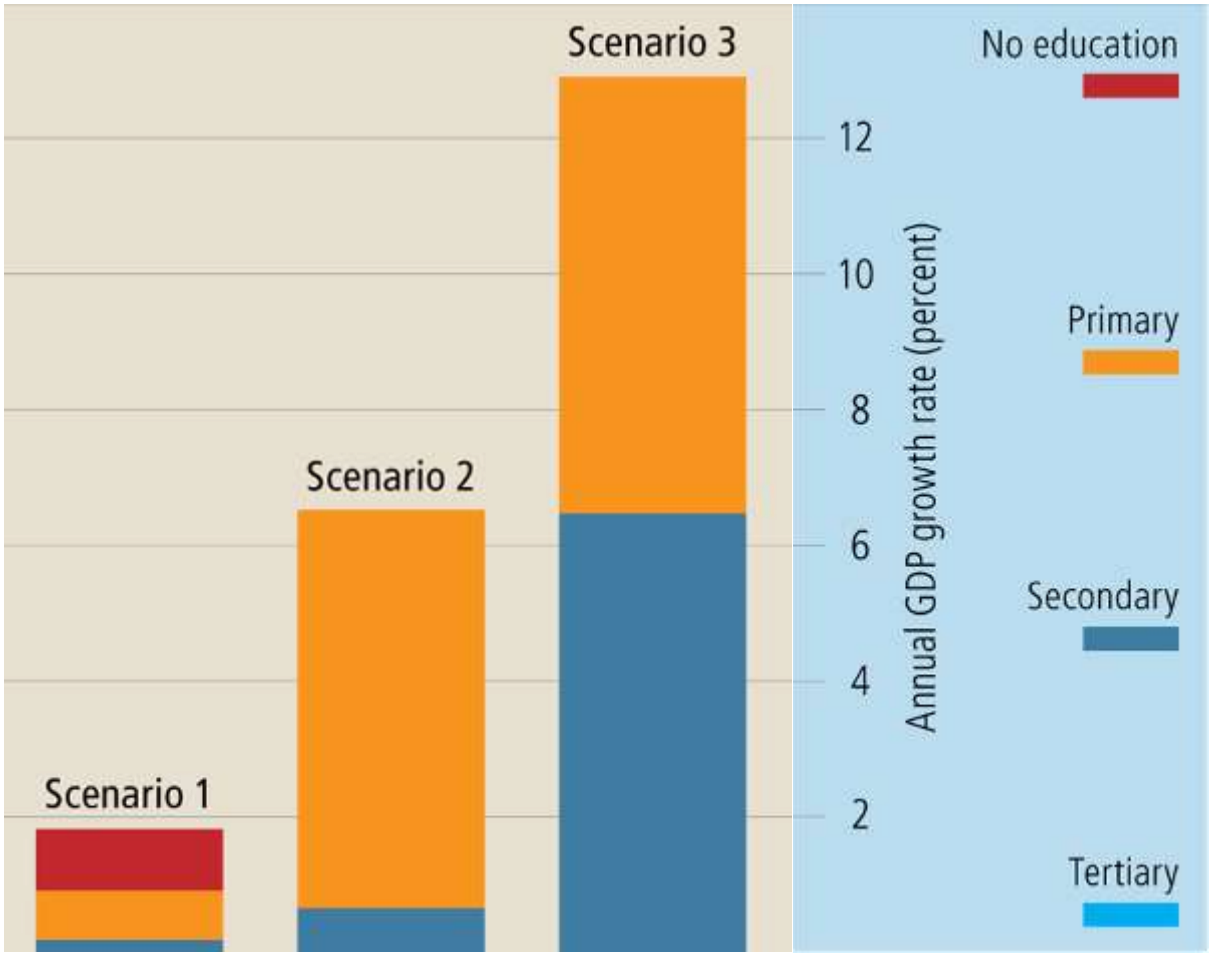


Poverty and Equity



1,000 Billionaires
10,000,000 Millionaires
1,000,000,000 live on less than $1/day

Key to Development: Education



Source: IIASA

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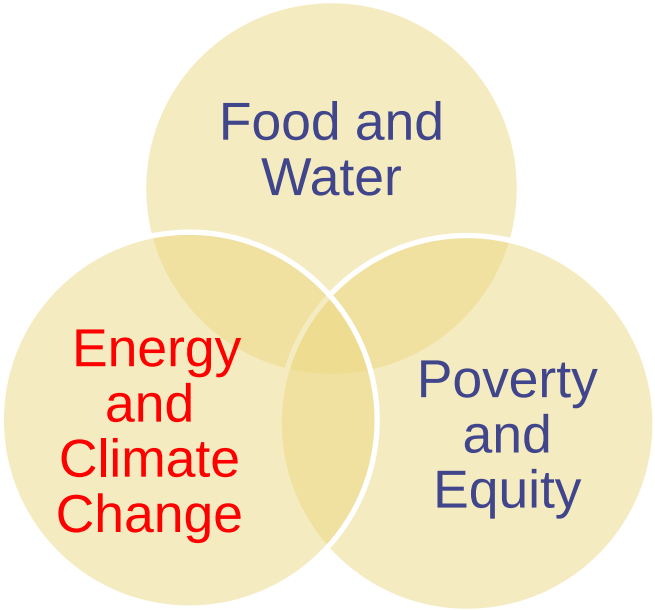
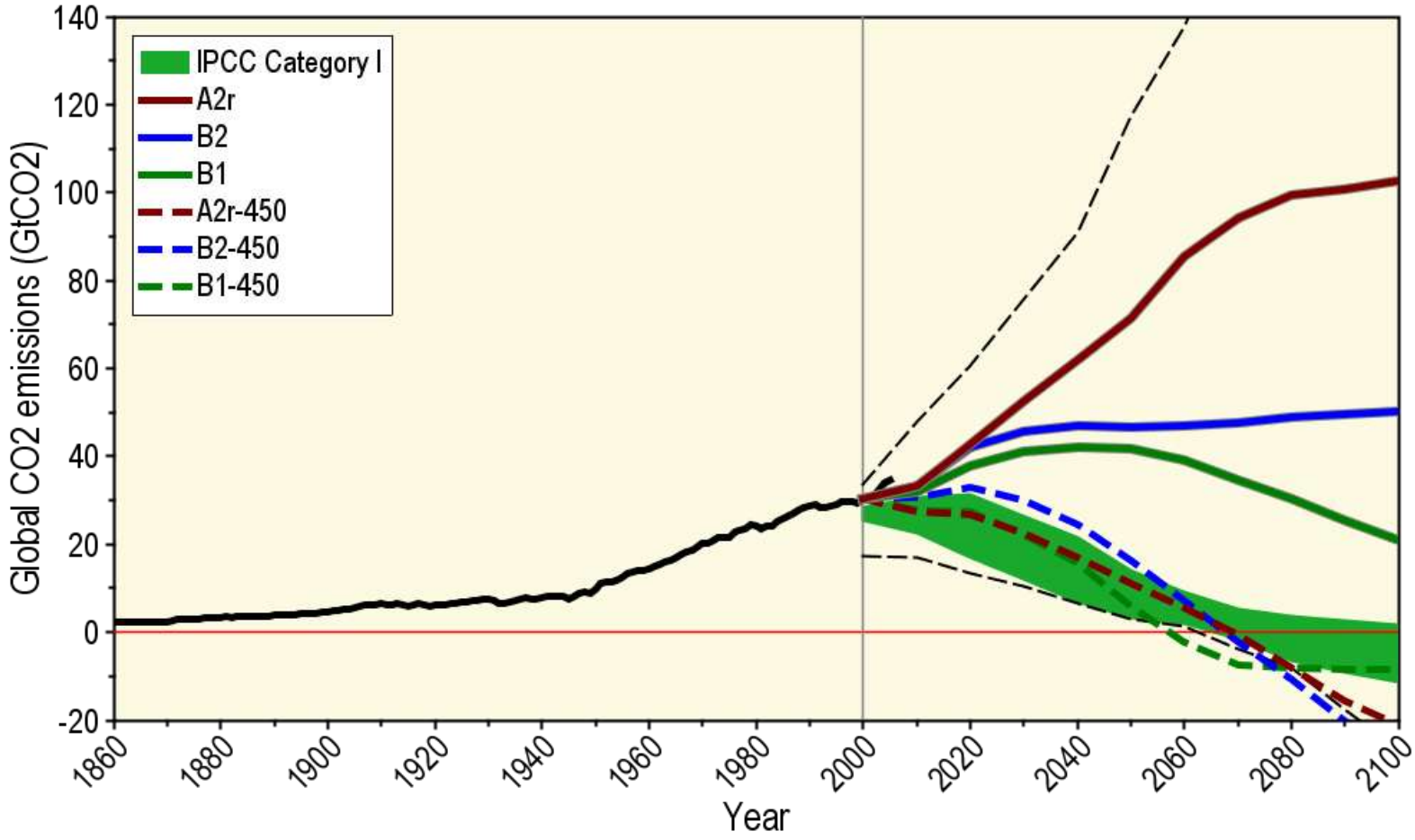


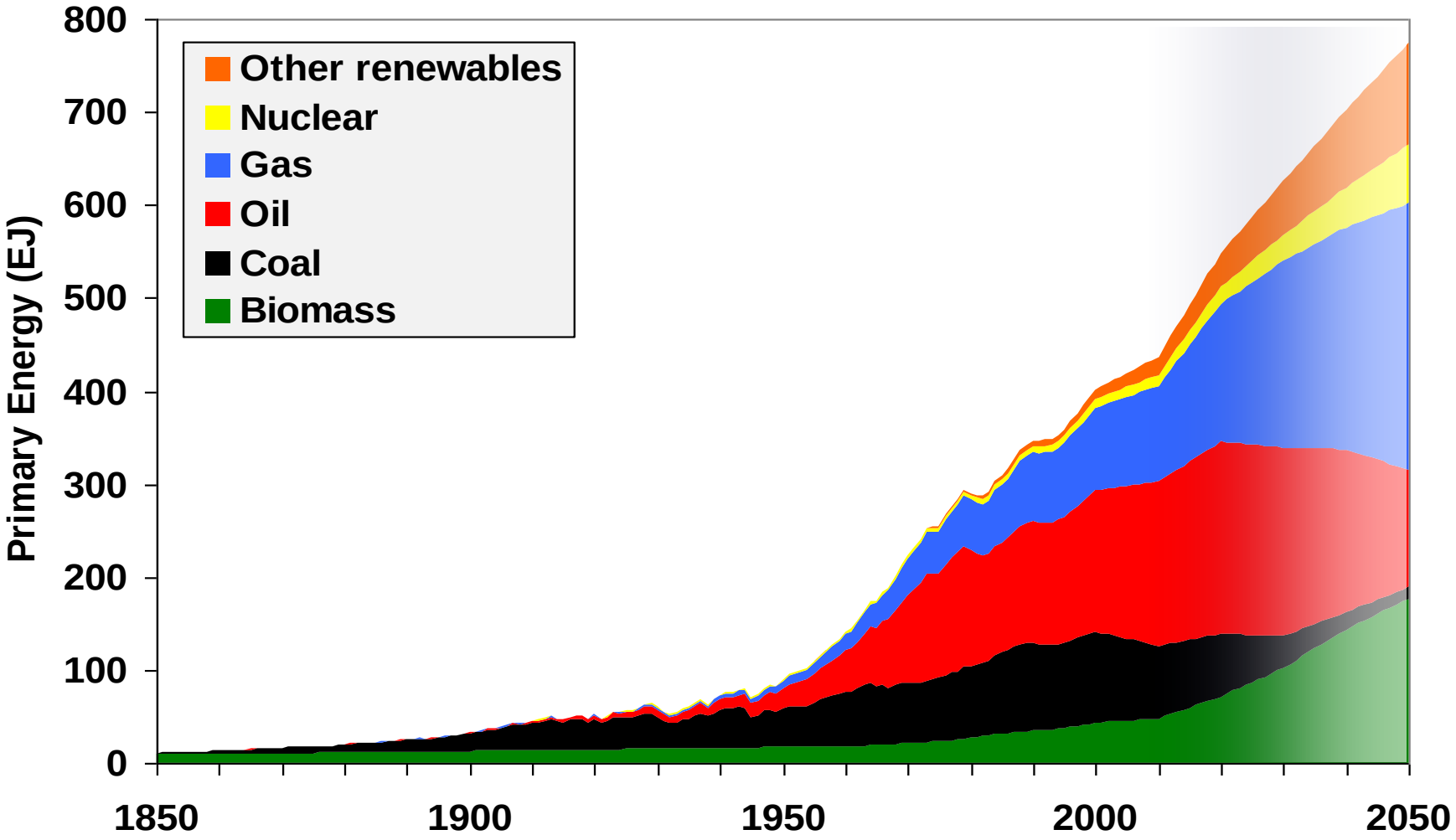
Global Carbon Emissions

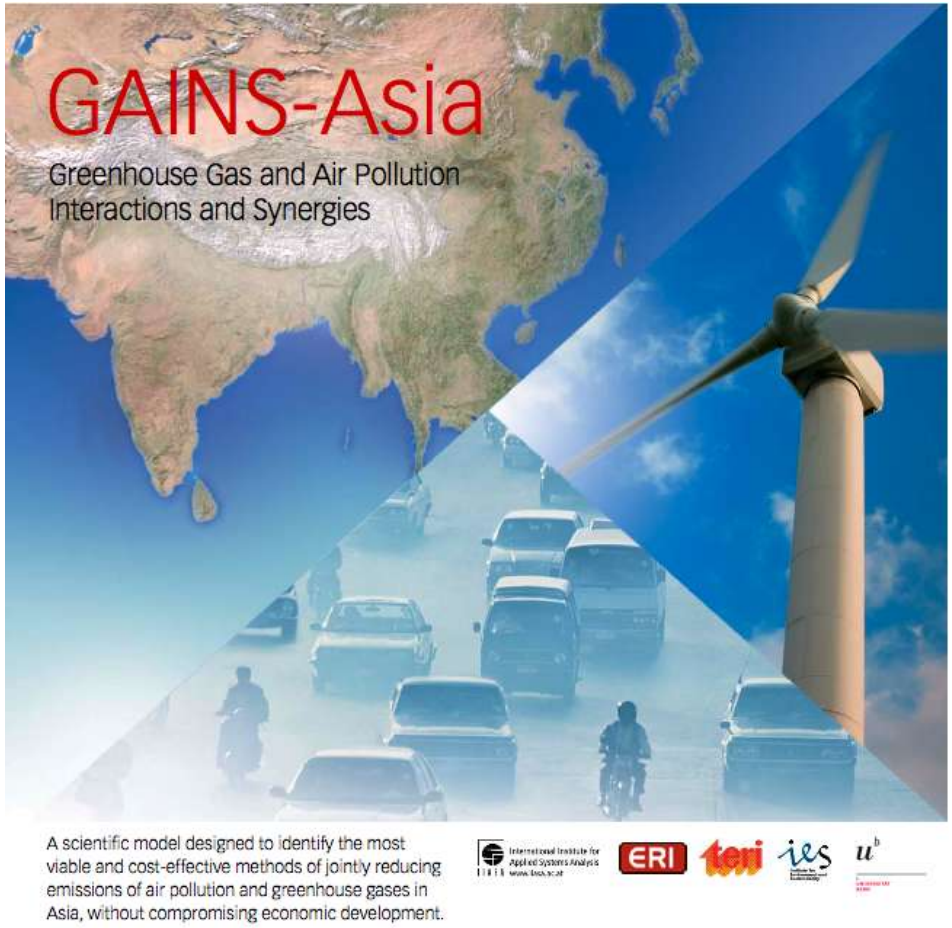
Baseline-Range & Low Stabilization Scenarios



Global Primary Energy

450 ppm CO_2-equ. or 2°C





Current greehouse gas emission trends

Costs of current and future greenhouse gas reductions

Comparisons using different metrics

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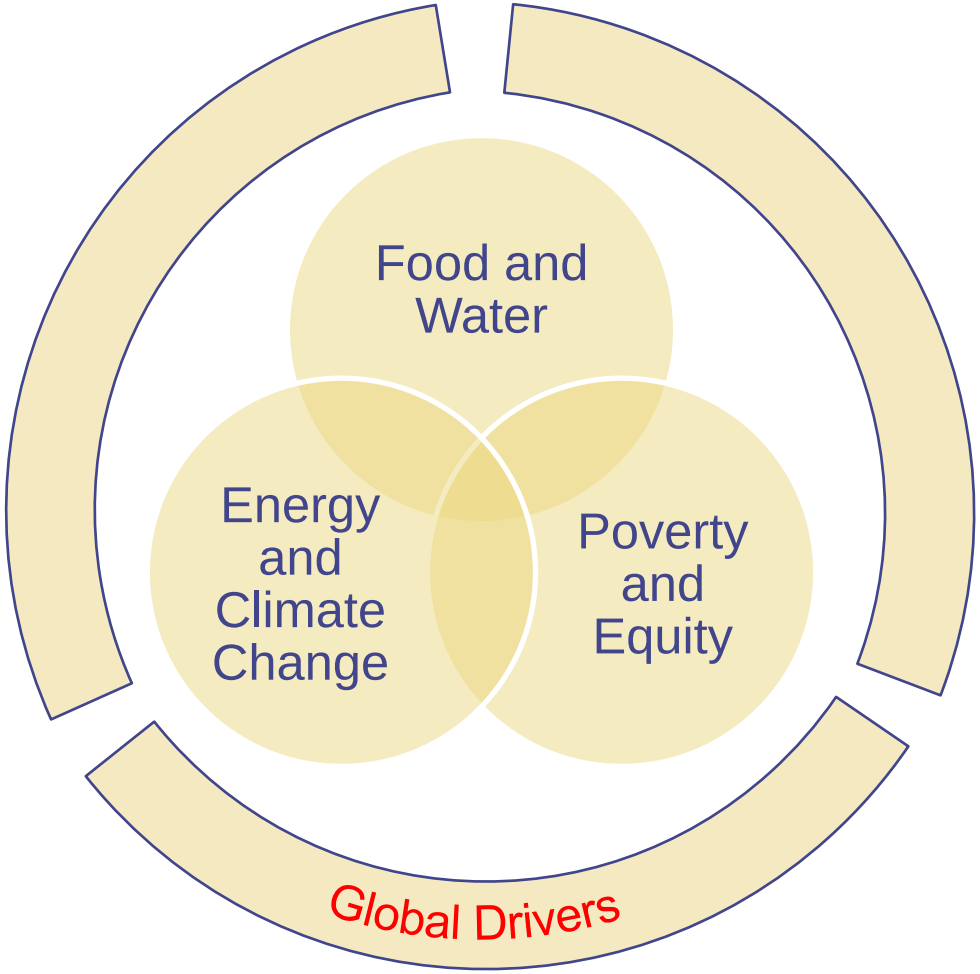
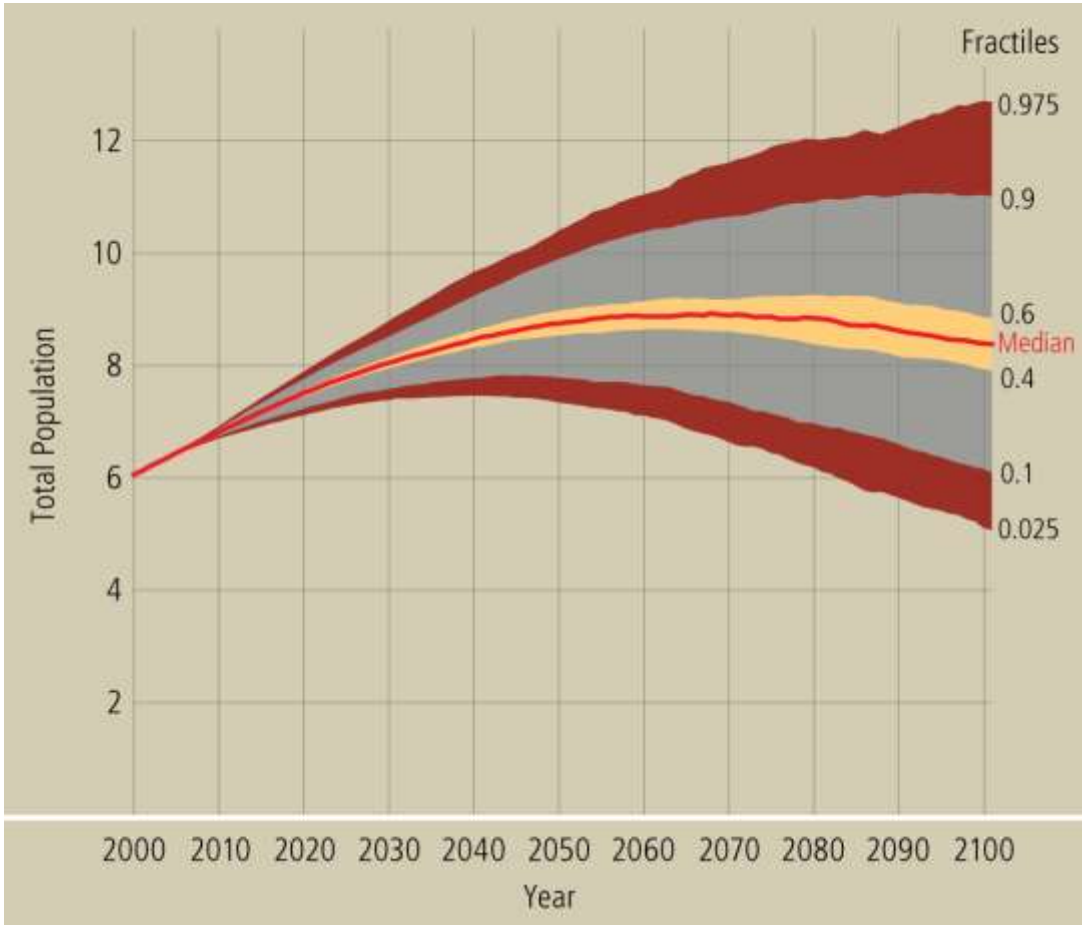


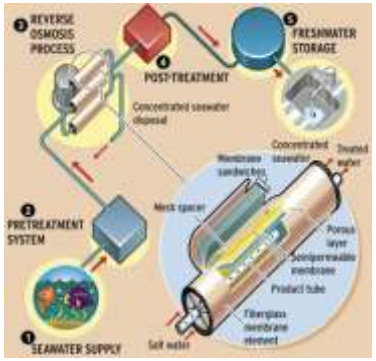
Future Population



Source: IIASA

Technology

Carbon Sequestration

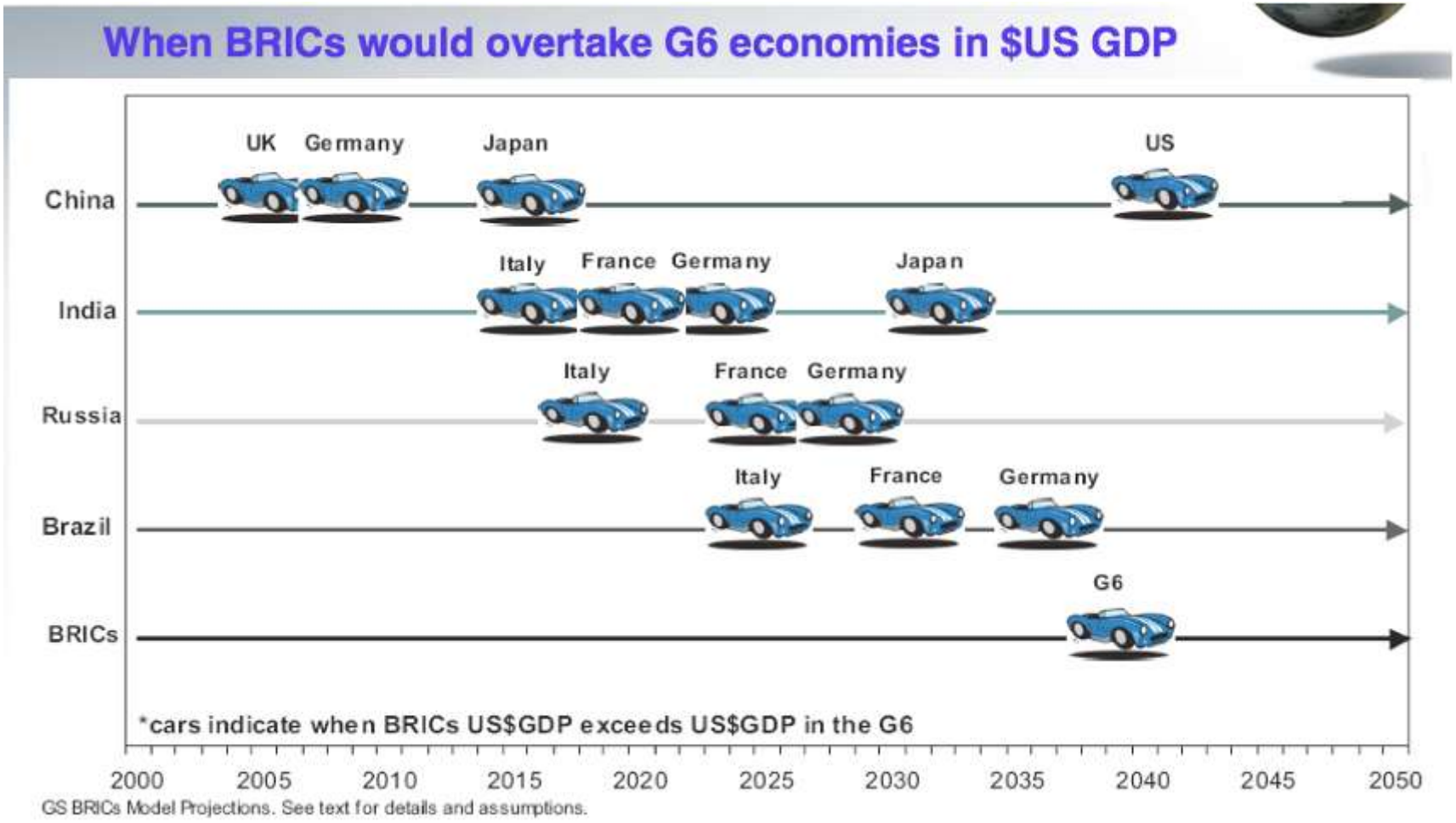


Water Desalination

Genetic engineering

Safe and sustainable nuclear power

Globalization Race



Source: Goldman Sachs

Extreme Events

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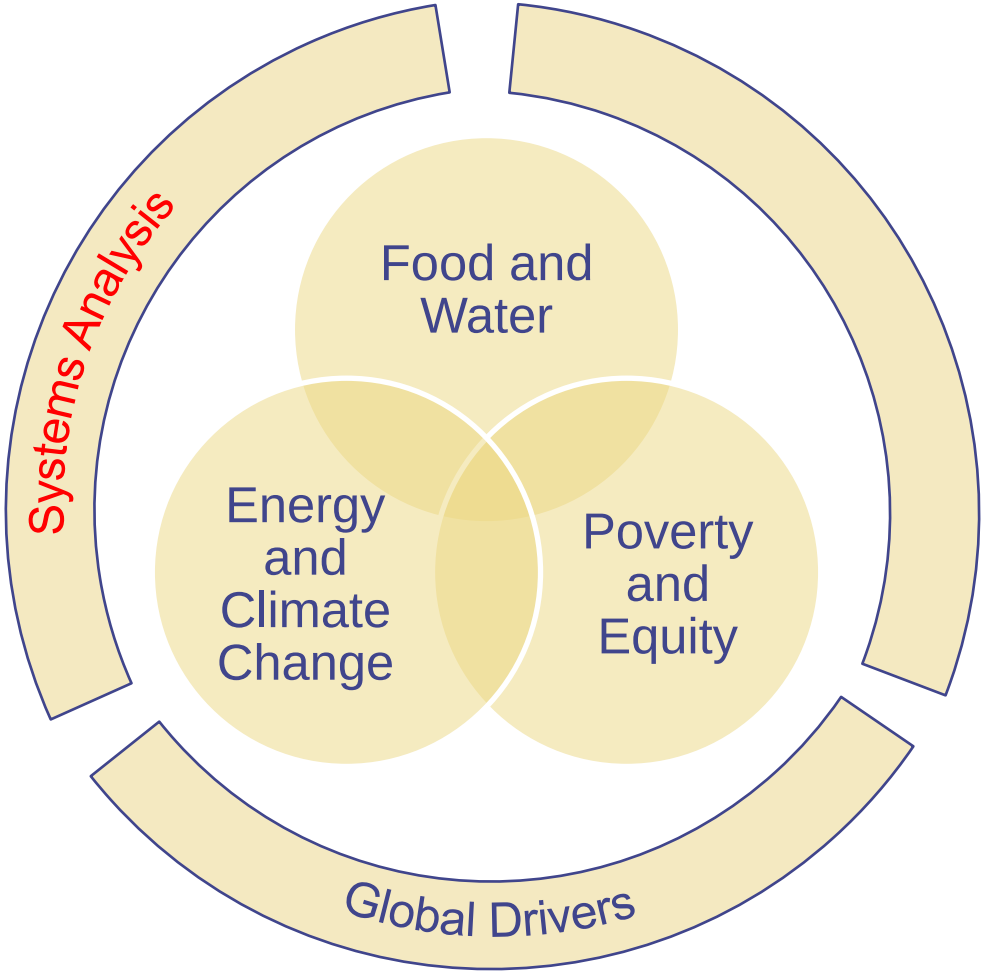
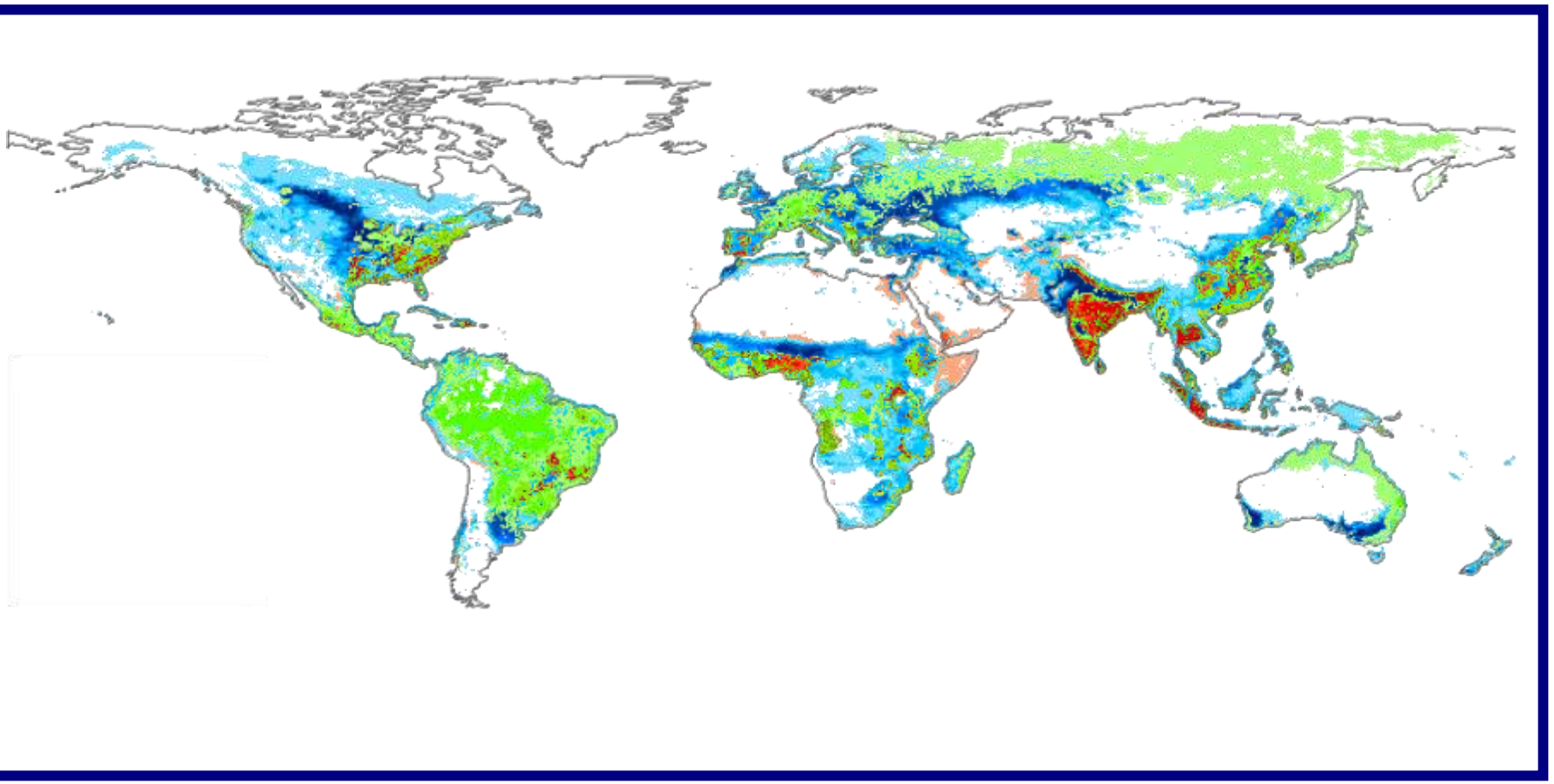


Systems Analysis at IIASA

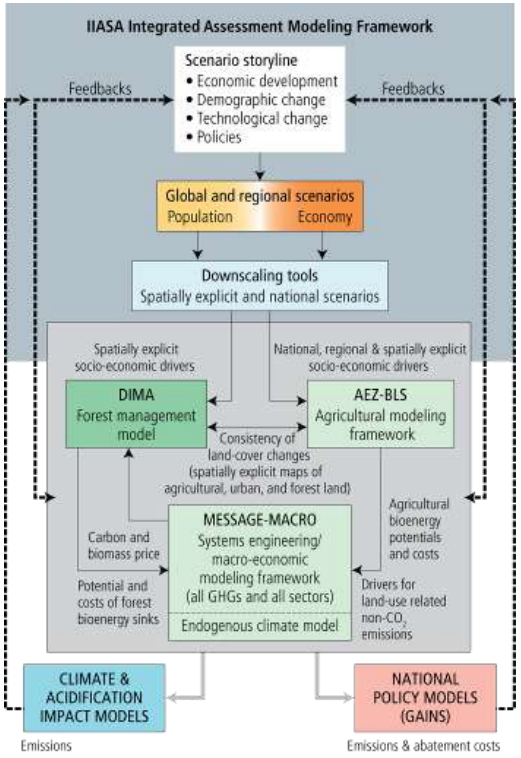
- Problem driven and solution oriented
- Integrated: Systems linkages and dynamic interactions
- International and interdisciplinary
- Science based

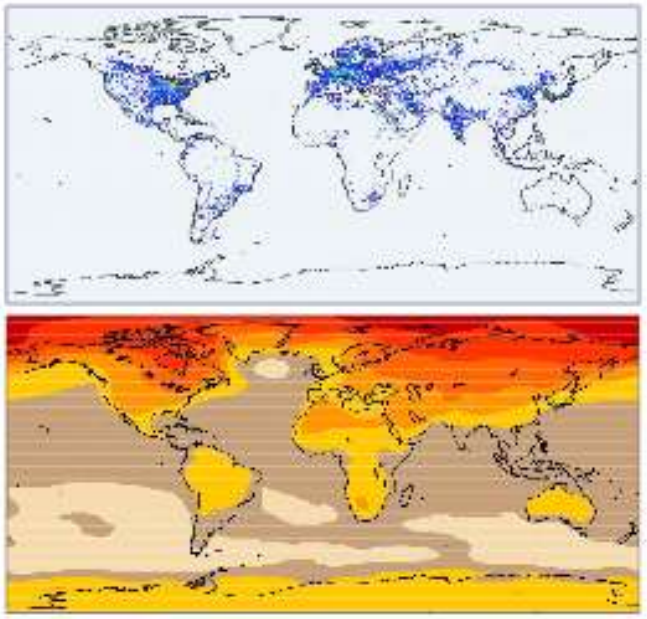
Problem Driven and Solution Oriented: Energy and Food Land Conflicts



Integrated: Systems Linkages

Global Energy Assessment





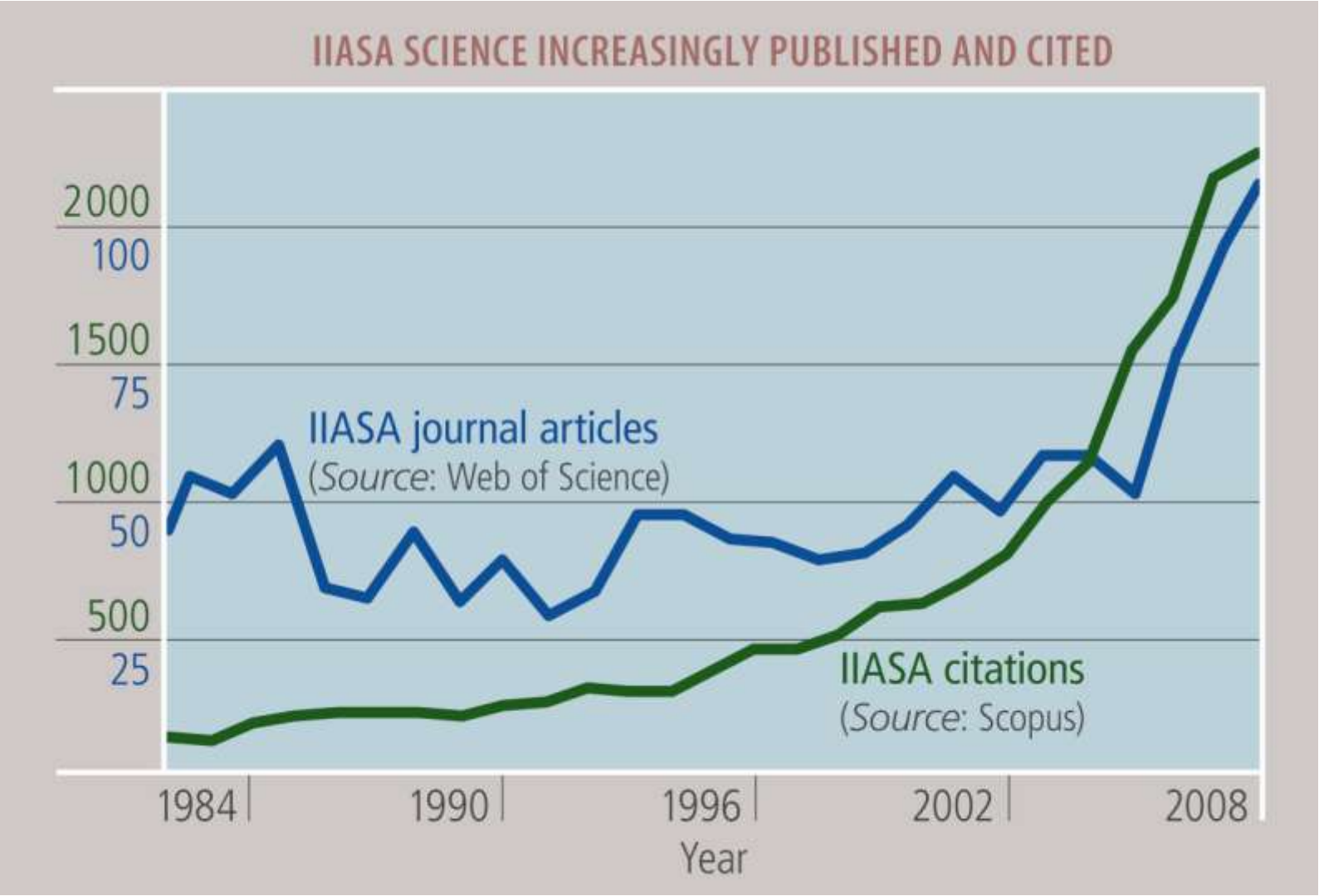
Night luminosity and temperature change in 2070

Source: IPCC 2000, Special Report on Emissions Scenarios; IPCC 2001, Climate Change 2001: The Scientific Basis

Interdisciplinary and International

- 40+ countries
- 150 scientists
- 50 YSSP annually
- 15 Postdocs

Science Based



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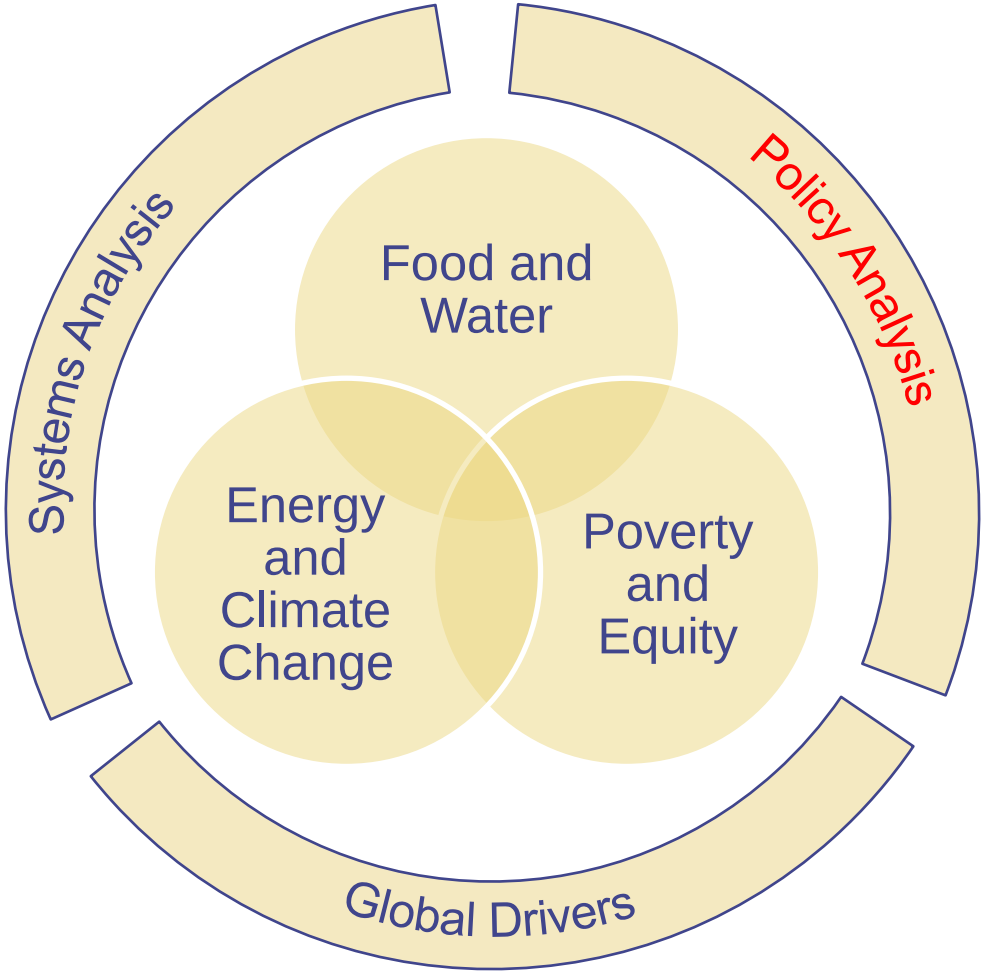


Increasing Policy Relevance

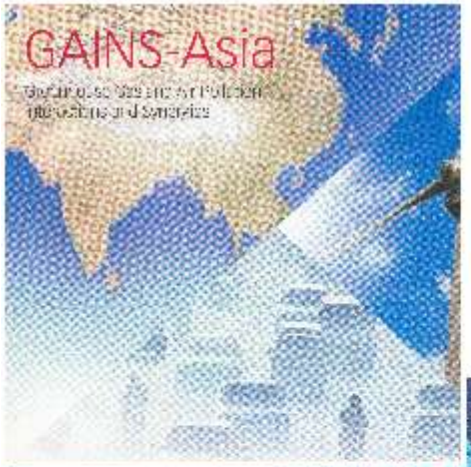
- Establishing policy dialogues and relationships
- Linking global research to national policy agendas
- Collaborating with local policy and scientific institutions

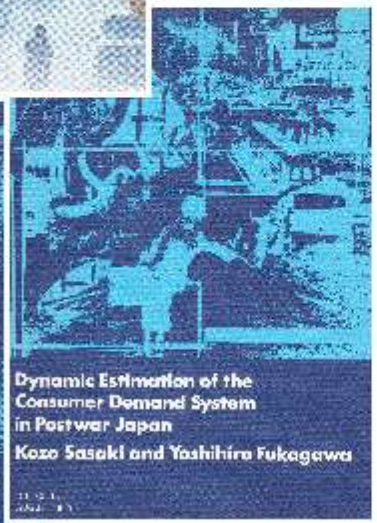
Capacity Building

Japanese YSSPers and Post-doctoral Researchers

IIASA 日本YSSP ニュースレターづくりに携わる 2008 有志たち。(左上から青木健太郎、見上公一、中寄 岡本健一、梅宮知佐、金田さやか、佐々木達矢

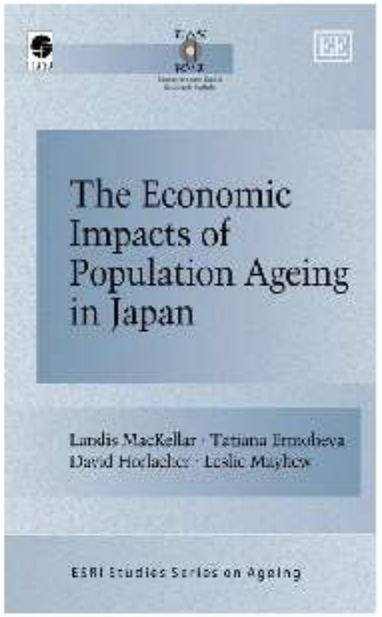
Relevance of IIASA Research for Japan





IIASA's long-term and broadly-focused research on Japan covers such topics as:

- Modeling Air Pollution and Greenhouse Gas Reduction (GAINS – Asia)
- Health
- Population Aging
- Population Structure
- Regional Development
- Urban Development
- Transport
- Land-use Change
- Disaster Prevention
- Technology and Economy
- Consumer Demand



Japanese Partners of IIASA

- RITE
- NIES
- DPRI
- TCRDL
- Tokyo Gas Co.
- Kyoto University
- CRIEPI
- ADORC
- TEPCO
- Tokyo Res. Labs
- Toyota
- JAIST
- Japan Foundation

Publications 2008-2009

- Three edited books
- 33 journal articles
- Three other publications

Including Japanese authors or co-authors

In 2020…..

…..policy makers all over the world will first turn to IIASA for help, when faced with a global problems.

Thank You

More information about
IIASA at: www.iiasa.ac.at