

Cooperation for Achieving Sustainability in Asia



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Contents

- **Understanding the background**
 - **Development within the Limit**
- **Asian situations**
 - **Economic growth, energy consumption and CO2 emissions**
 - **Other environmental problems: desertification, water environment, deterioration of forests, municipal wastes, air pollution, acid rain, etc.**
- **Environmental commons**

Development within the Limit (1/2)

- **Integration/down-sizing of the world---
Understanding of Finite Capacity (1990s)**
 - **Collapse of the East-West structures**
 - **Unification of economy systems, aggravation of worldwide competition in resources acquisition**
 - **Progress of IT technologies**
 - **Common sharing of various information**
 - **Understanding the mechanism and fragility of the earth system through global climate change events**

Global Warming Simulation

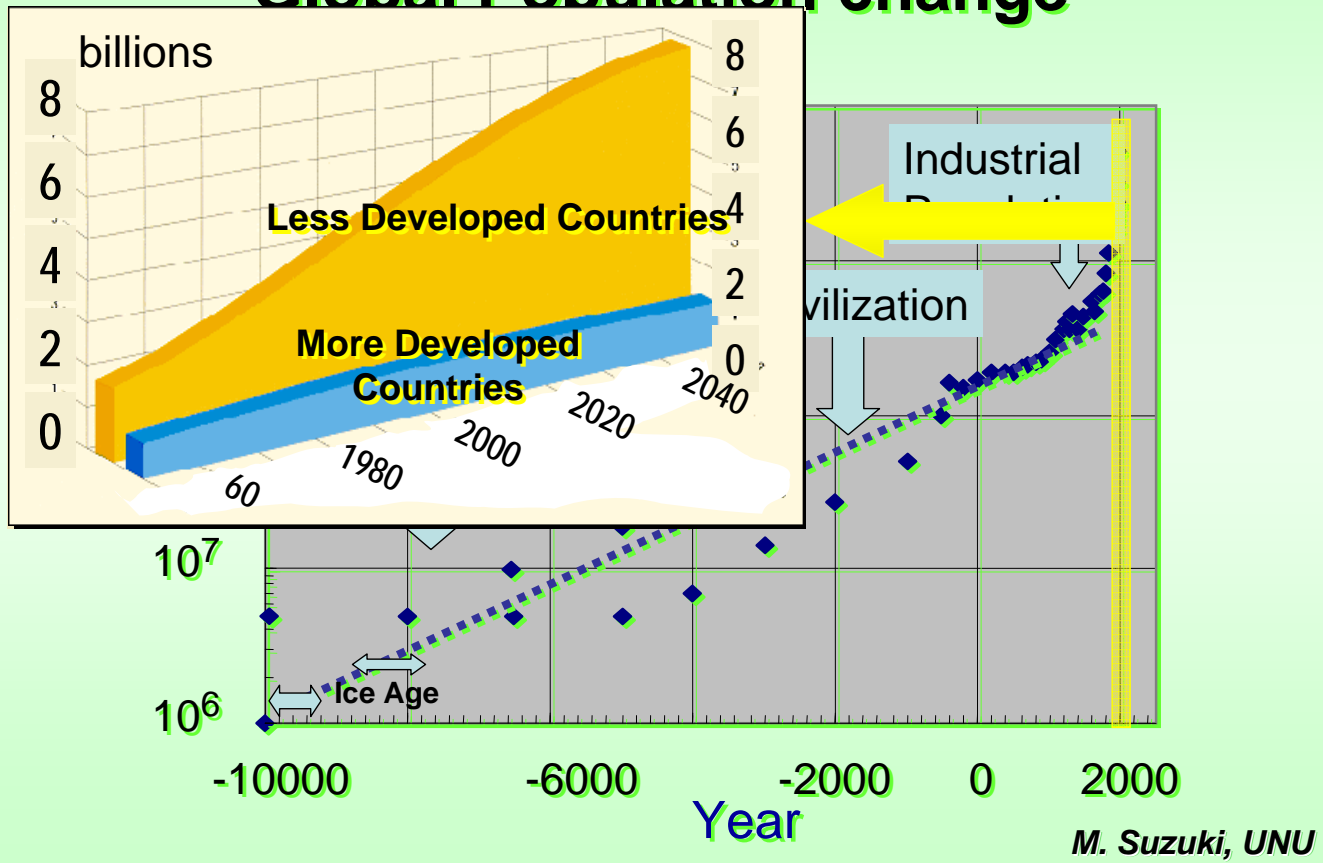
M. Suzuki, UNU

Development within the Limit (2/2)

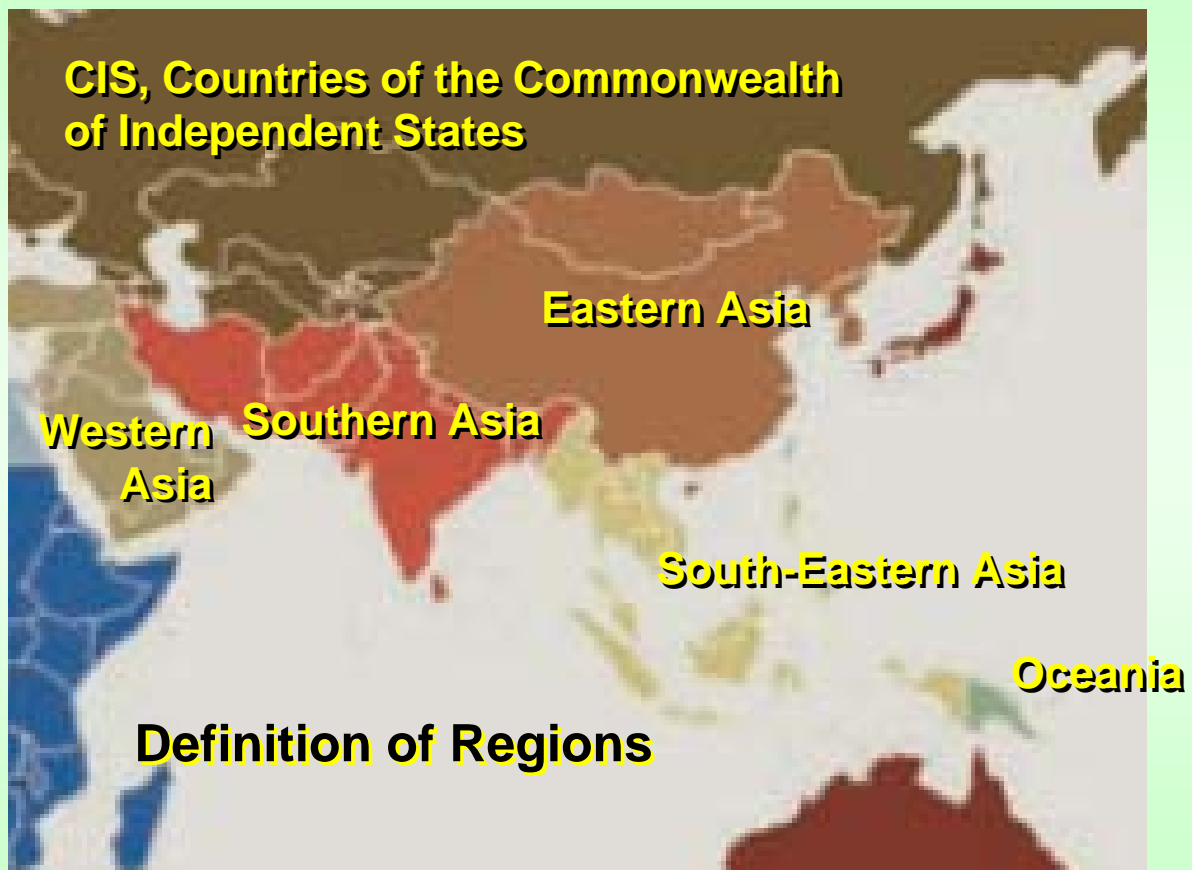
- **Human activities within the limits must face:**
 - **No more new world to pioneer**
 - **Disputes over limited natural resources**
 - **Water, food, energy and various resources (including environmental resources and ecosystem services)**
 - **Conflicts over value judgment**
 - **Civilization, morality, religion**
- **The current generation is the first in human history that really faced the limit of the earth capacity.**

M. Suzuki, UNU

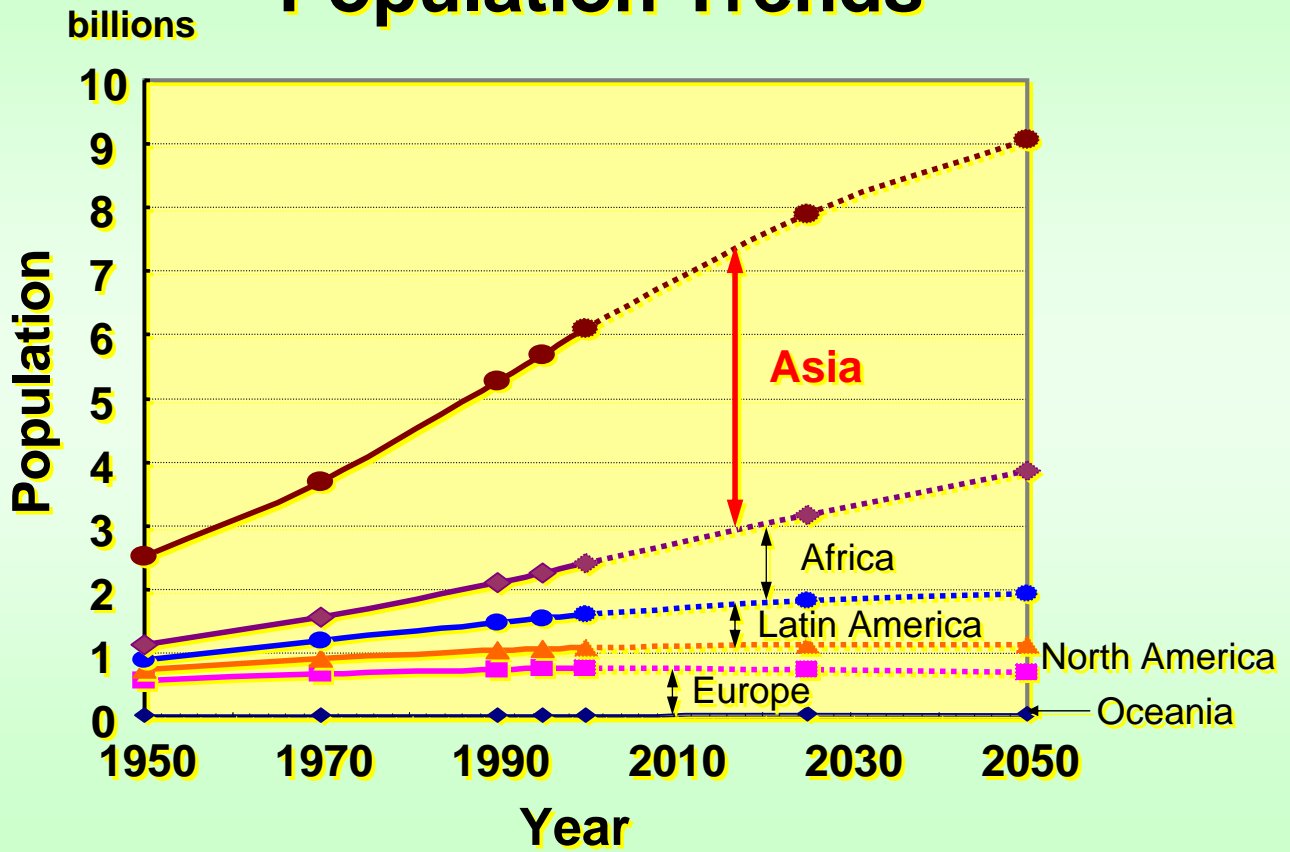
Global Population change



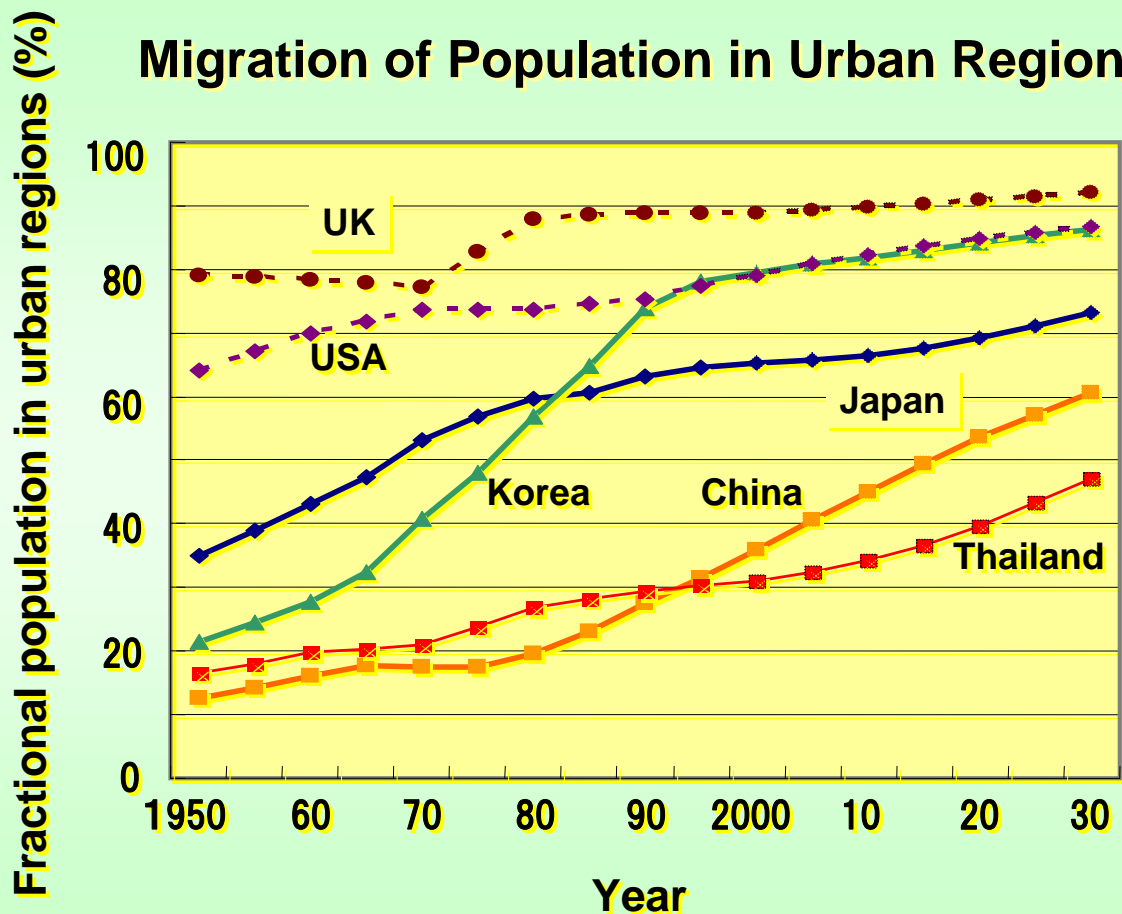
CIS, Countries of the Commonwealth of Independent States



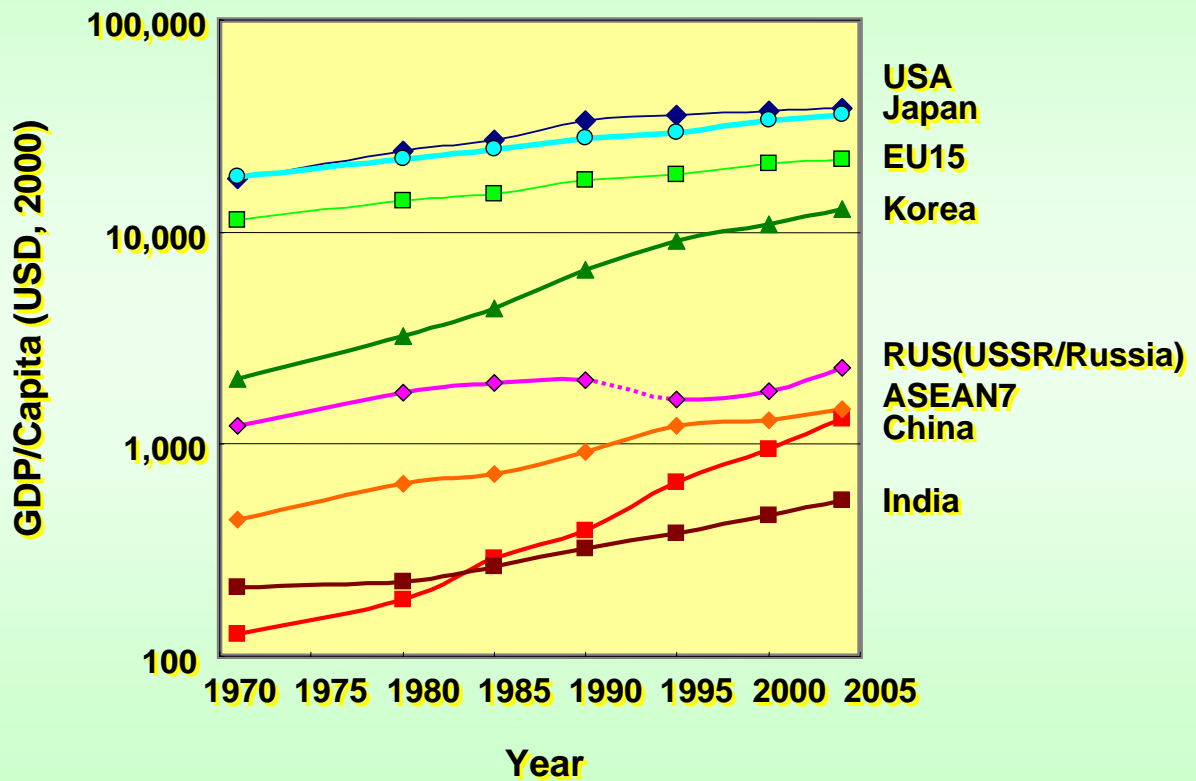
Population Trends



Migration of Population in Urban Regions



Trends in Gross Domestic Product per Capita in Several Regions/Countries



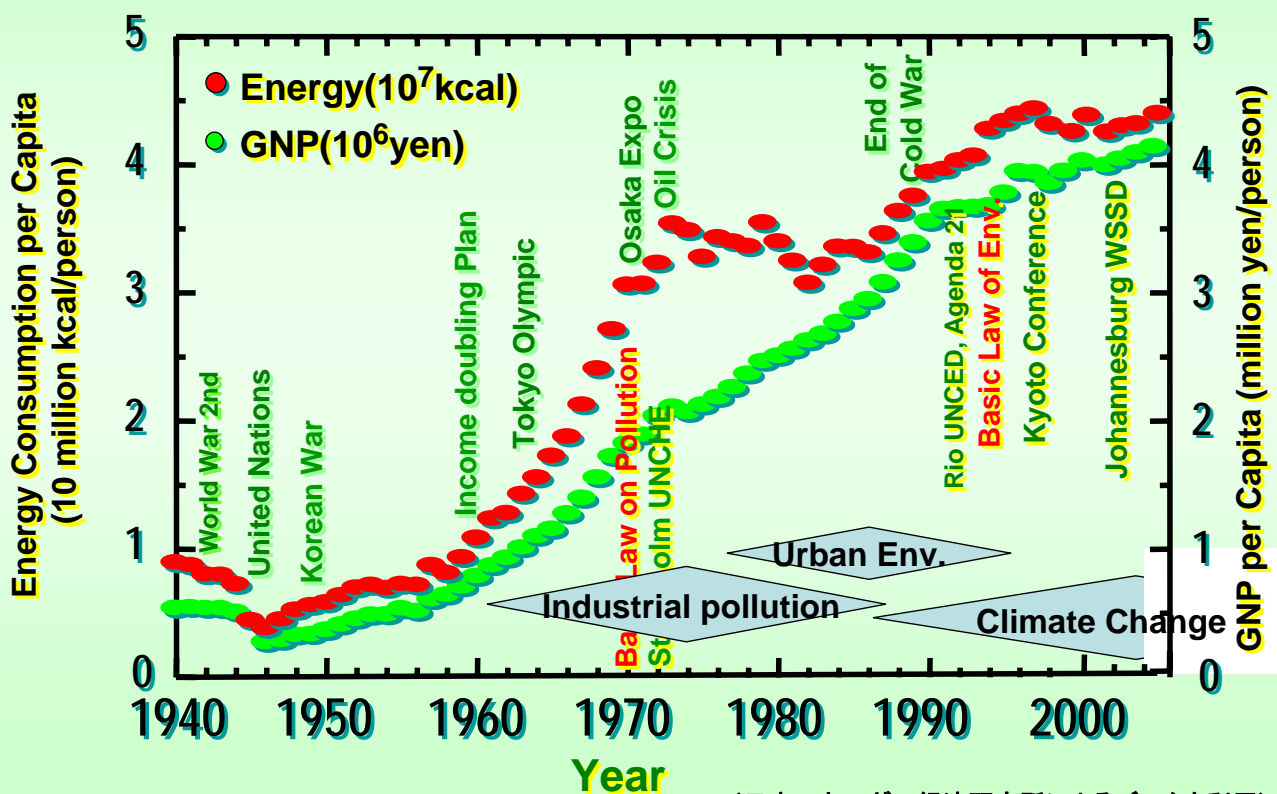
Size of Economy, Comparison

- **World Economy Size in terms of GDP**
 - ca 36 trillion USD or ca **55 trillion** International dollar.
- **Regional GDP at 2005 (2000, International dollar)**
 - **Northeast 3 countries:** **12 trillion \$** **22%**
 - **NAFTA:** **13 trillion \$** **24%**
 - **EU15:** **10 trillion \$** **19%**
- **ASEAN + 3 > NAFTA: Huge Economic Unit**

Compressed Patterns of Development in Asia

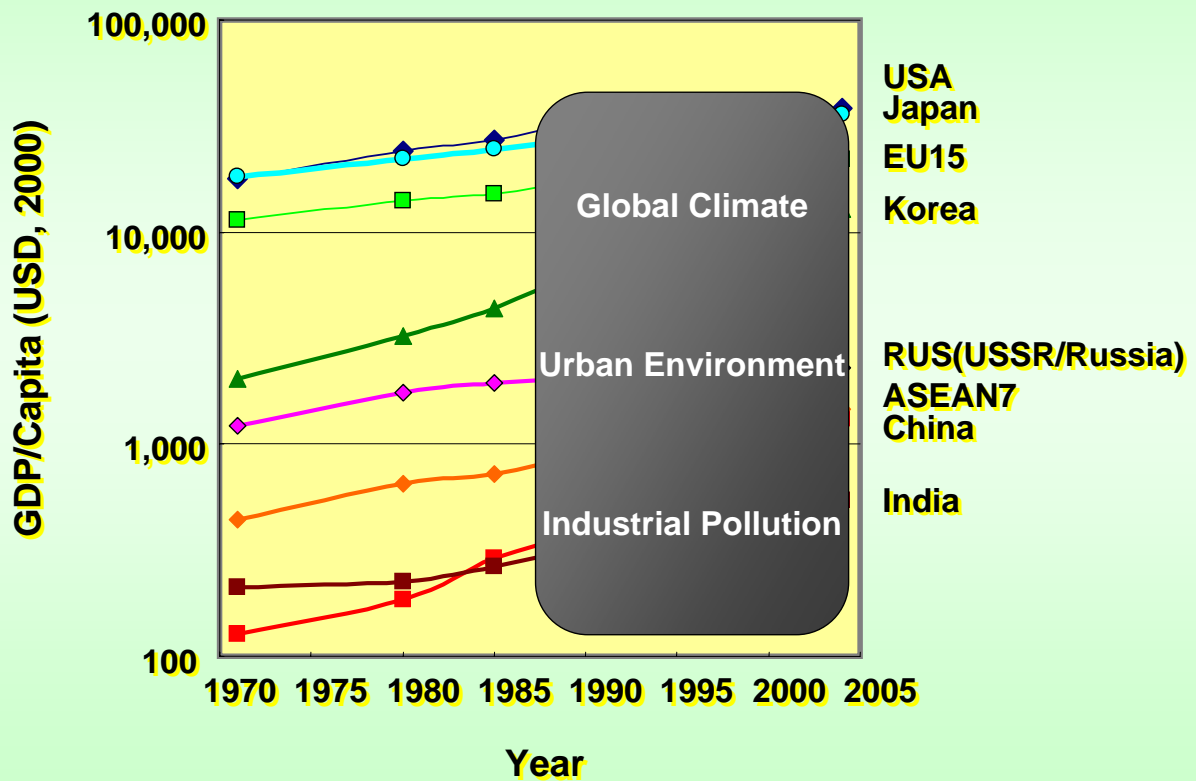
- **World-top economic growth**
 - 1960s-70s: Japan
 - 1970s-80s: Korea and Taiwan
 - Late 80s to 90s: Thailand, Malaysia, Indonesia and later, China
- **Rapid urbanization, materialization, mass-consumption, high energy consumption, etc.**
- **Combination of**
 - Industrial pollution, urban pollution, rural degradation
 - Traditional culture and modern lifestyle
 - Domestic problems and global/international problems

Trends of Japan Economy and Energy Consumption, 1940-2004



(日本エネルギー経済研究所によるデータを利用)

Trends in Gross Domestic Product per Capita in Several Regions/Countries



United Nations' Millennium Development Goal

- Adopted at UNGA, 2000
- Targets to be achieved were set for each goal.

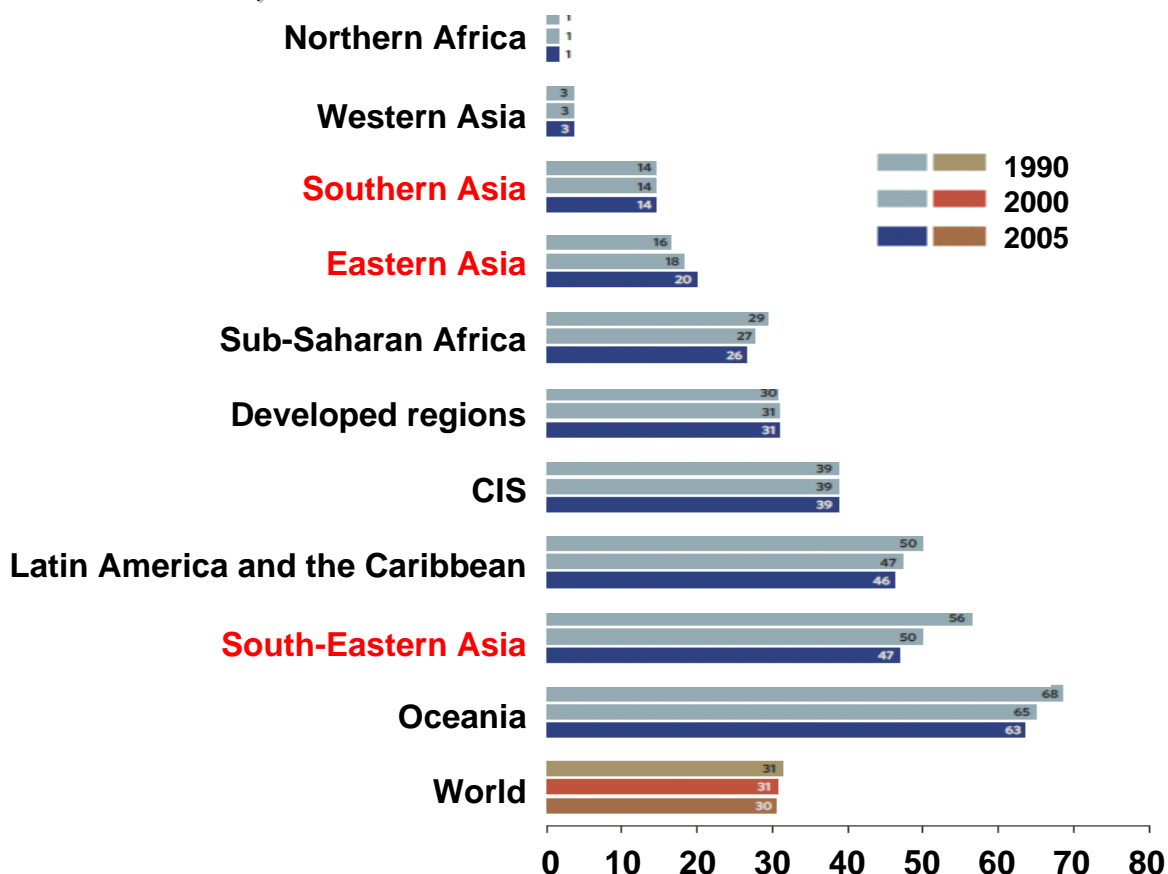
The Goals

- 1 Eradicate extreme poverty and hunger
- 2 Achieve universal primary education
- 3 Promote gender equality and empower women
- 4 Reduce child mortality
- 5 Improve maternal health
- 6 Combat HIV/AIDS, malaria and other diseases
- 7 Ensure environmental sustainability
- 8 Develop a global partnership for development

Goal 7: Ensure Environmental Sustainability

- Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources
- Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation
- Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020

Proportion of Land Area Covered by Forests, 1990, 2000 and 2005



Environmental Issues in Asian Region

- **Water resources**
 - Increase of water demands for food production and industrial development Red Tide/ Marine Litter
 - Deterioration of water environment, EDCs
- **Air pollution**
 - Transboundary dust storms (yellow sand), acid rain, oxidants
 - Atmospheric (Asian) brown cloud (ABC), Haze Dust storm/ ABC
- **Deterioration of ecosystems**
 - Diminishing primary forests, illegal deforestation, forest fires
 - Loss of biodiversity, invasive alien species Forest fire/ Mining
- **Global climate change**
 - CO₂ emissions
 - Desertification, soil degradation Soil degradation
- **Solid wastes**
 - Needs for increasing resources productivity, 3R
 - Hazardous wastes, cross-border transport Garbage/ e-Waste

Topics to share within Asia

- **Environmental Commons**
 - Increasing interactions and interdependency through trades/economic activities among countries within the region
 - Countries with common climatological/cultural conditions, i.e., strong effect of monsoon, rice cultures
 - Environmental resources/services to be shared within the area
- **Human/social development**
 - Enhancement of environmental governance
 - Establishment of governmental/social systems
 - Enhancement of awareness for environmental degradation
 - Capacity development
 - Training/human development
 - Arrangement of a common information-base
 - State of the arts in environmental problems
 - Technology, social measures,
- **Science and Technology for complex issues**
 - Identification of sustainability technologies for specific conditions
 - Development of co-beneficial countermeasures

Final Remarks

- Give a man a fish and you feed him for a day. Teach him how to fish and you feed him for a lifetime. (*Laozi*)
- If you teach him how to fish, he may
OVERFISH!
- Appropriate fishing methods may vary from place to place. In most cases, traditional knowledge and wisdom should be venerated and highly exploited.
- For a sustainable use of fish resources, understanding and management is needed for the whole ecosystem.

