The Role Expected of the Business Community towards a Low Carbon Society and Sustainable Development

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OUTLINE

Introduction

- Priority for a **Low Carbon Society (LCS) in the Context of Sustainable Development (SD);**

2. Major Requirements for Promoting LCS;
3. Role of Business Community in:

1) **Developing Technology and Production Process** for Reducing CO2 Emission**;**

2) **Upgrading the Industrial Structure** in favour of LCPS in the National Economy with **Government Support**;

3) **Enlarging and Improving Physical Landscape** in favour of LCS; in Cooperation with Governments

4) **Positively Responding to Demographic Constraints** in Association with Governments;

4. Role of Business Community in Promoting:

1) **Legislative Actions, Policy Implementation and Public Participation for LCS to be accelerated and strengthened** in Collaboration with Governments and all Other Stakeholders;

2) **Enhanced People's Environmental and SD Awareness** in Association with Governments and all other Stakeholders;

3) **Installation of LCS in the Context of SD at the Regional and Global Level;**

4) **Assistance to the International Community in Achieving Millennium Development Goals (MDGs) by 2015** and **Support to Post-MDG Sustainable Development Goals (SDGs)** shared by all Countries, Developing and Developed, for effective Implementation on the basis of the Durban Principle adopted at COP 17.

Introduction: Setting the Stage

1. **What has been Happening to our Human Community?**

   On the One hand, Industrialization, Economic Growth, Increasing GDP per Capita, Better Access to Education, Health, Information and Sanitation, Higher Interpersonal Connectivity through ICT, etc. around the World;

   On the Other, Poverty, High Unemployment particularly among the Youth, Growing Income and Regional Disparities, Urbanization with its Private and Public Bads including Household and Commercial Wastes, Hazardous Industrial Wastes, Loss of the Sense of Community and Armed Conflicts ;

2. **What has been Happening to our Global Eco-System?**

   Deforestation; Desertification; Air, Soil, River, Lake and Ocean Pollution; Loss of Biodiversity; Iceberg Melting and Other Irreversible, Long-term Consequences of Climate Change;

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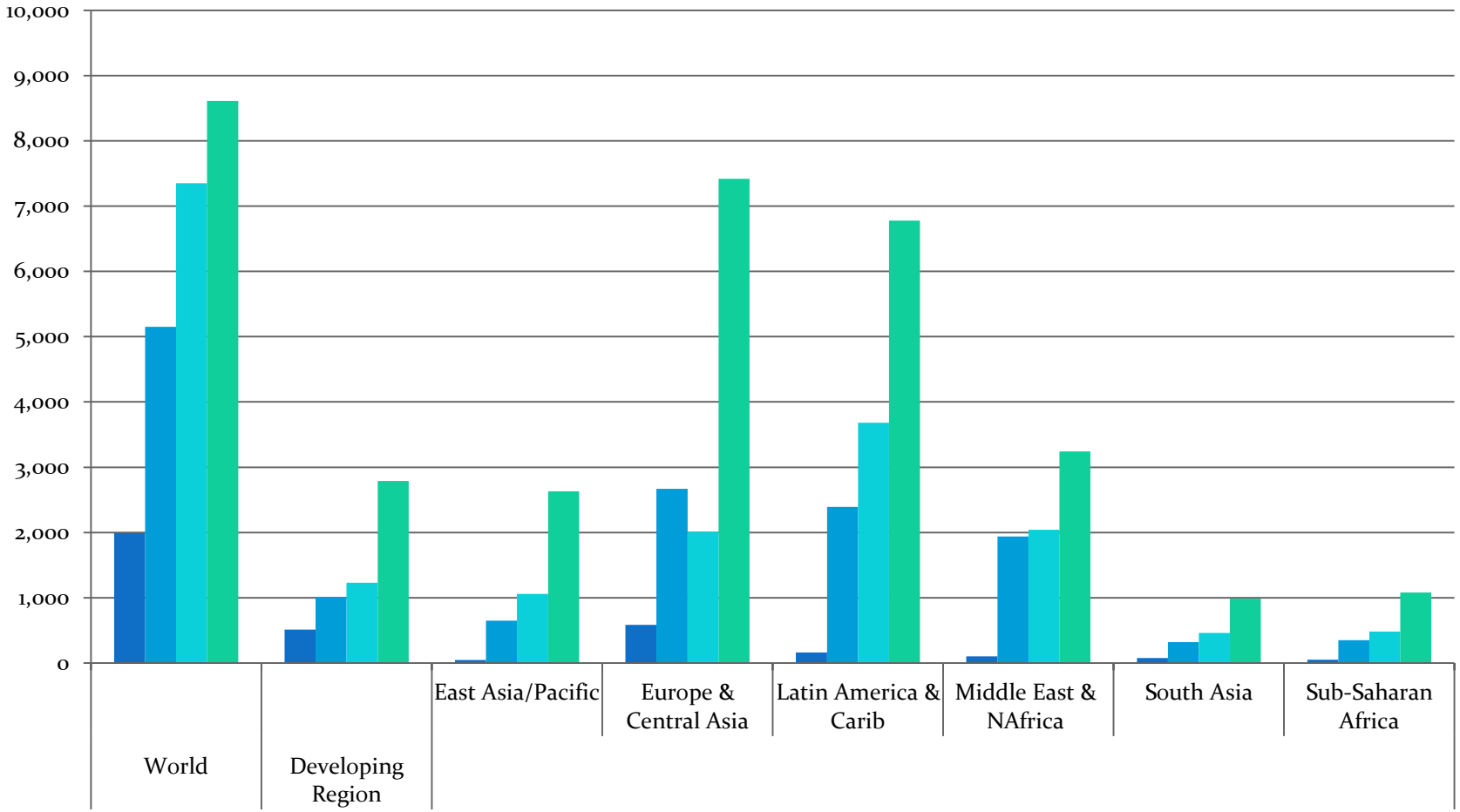
A Growth of Per Capita GDP, 1970-2010 (US$)



World Bank, World Development Reports 1972, 1992, 2002 & 2010
Note: violet for 1970, dark blue for 1990, blue for 2000, and green for 2010.

B1 Poverty in Developing Countries by Region, 1990-2015

	1990		2005		2015	
	A	B	A	B	A	B
EAP	**54.7**	**79.8**	**16.8**	**38.7**	**6.8**	**21.6**
China	**60.2**	**84.6**	**15.9**	**36.3**	**6.1**	**18.9**
CEE&CA	2.0	6.9	3.7	8.9	2.2	6.0
LACs	11.3	19.7	8.2	16.6	5.0	11.8
MENA	4.3	19.7	3.6	16.9	2.5	9.3
SA	51.7	81.7	40.3	73.9	23.8	56.6
India	51.3	82.6	41.6	75.6	25.4	57.9
SSA	57.6	76.2	50.9	73.0	37.1	60.8
Developing Cs	41.7	63.2	25.2	47.0	15.5	34.6

Note: A—Percent of population earning $1.25/day & below; B—Population earning $2.00/day & below

Source: World Bank, Global Economic Prospects 2009

B2 Poverty and Income Gap Ratios in Urban and Rural Areas, 2005

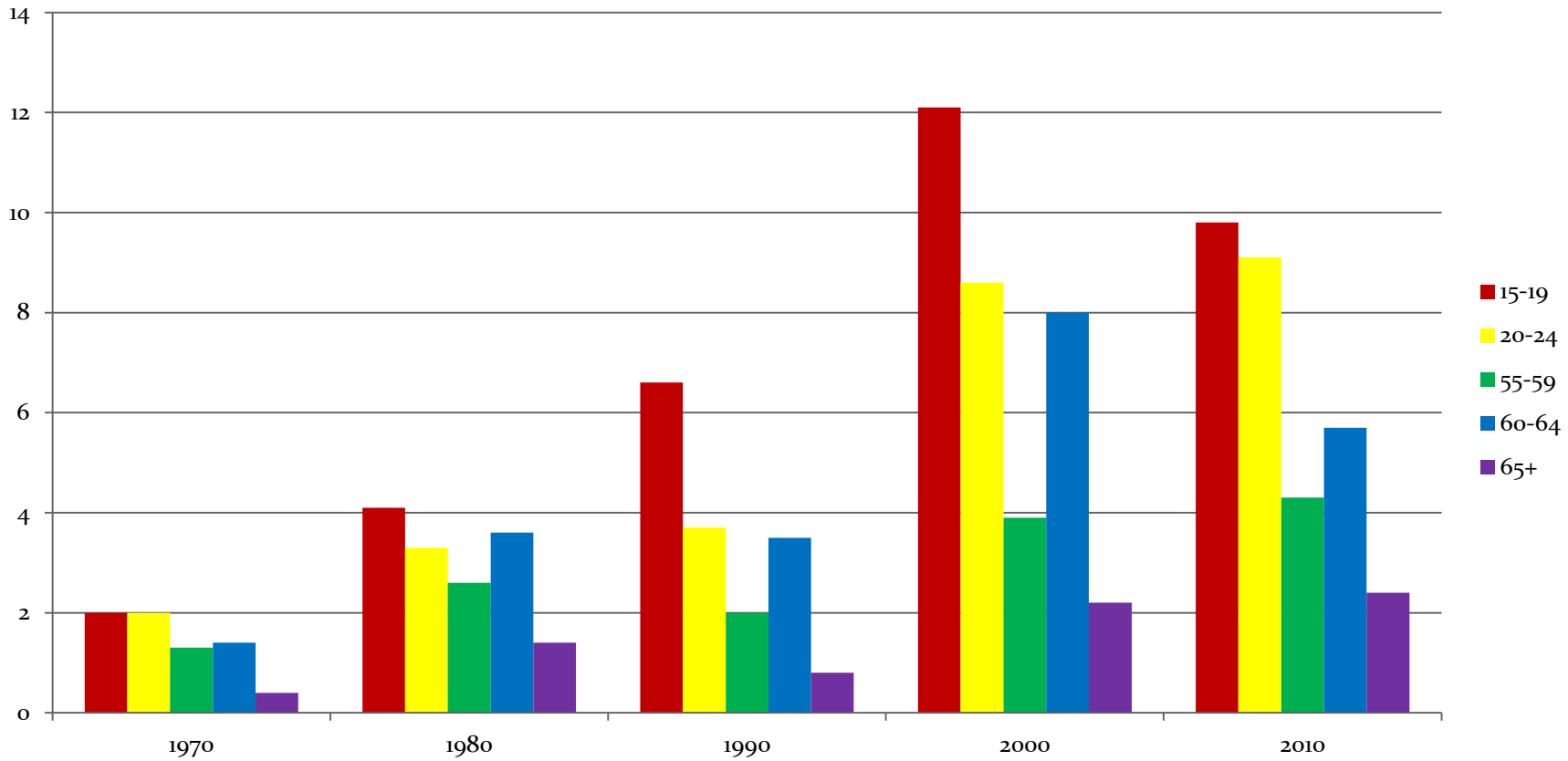
	The Absolute Poor* as % of Population	Income Gap Ratios as % below Poverty Line*
EAP	13.2 (31.9)	20.3 (23.2)
CEE&CA	2.5 (8.2)	8.7 (6.6)
LACs	3.7 (18.6)	37.6 (43.9)
MENA	2.7 (15.4)	17.8 (22.9)
SA	32.3 (43.3)	25.0 (24.0)
SSA	34.1 (54.9)	38.1 (41.5)
Developing Countries	15.3 (37.1)	27.1 (28.2)

Source: World Bank, Global Economic Prospects 2009.

Notes: Figures in Parenthesis are those for rural area, while those without are for urban area.

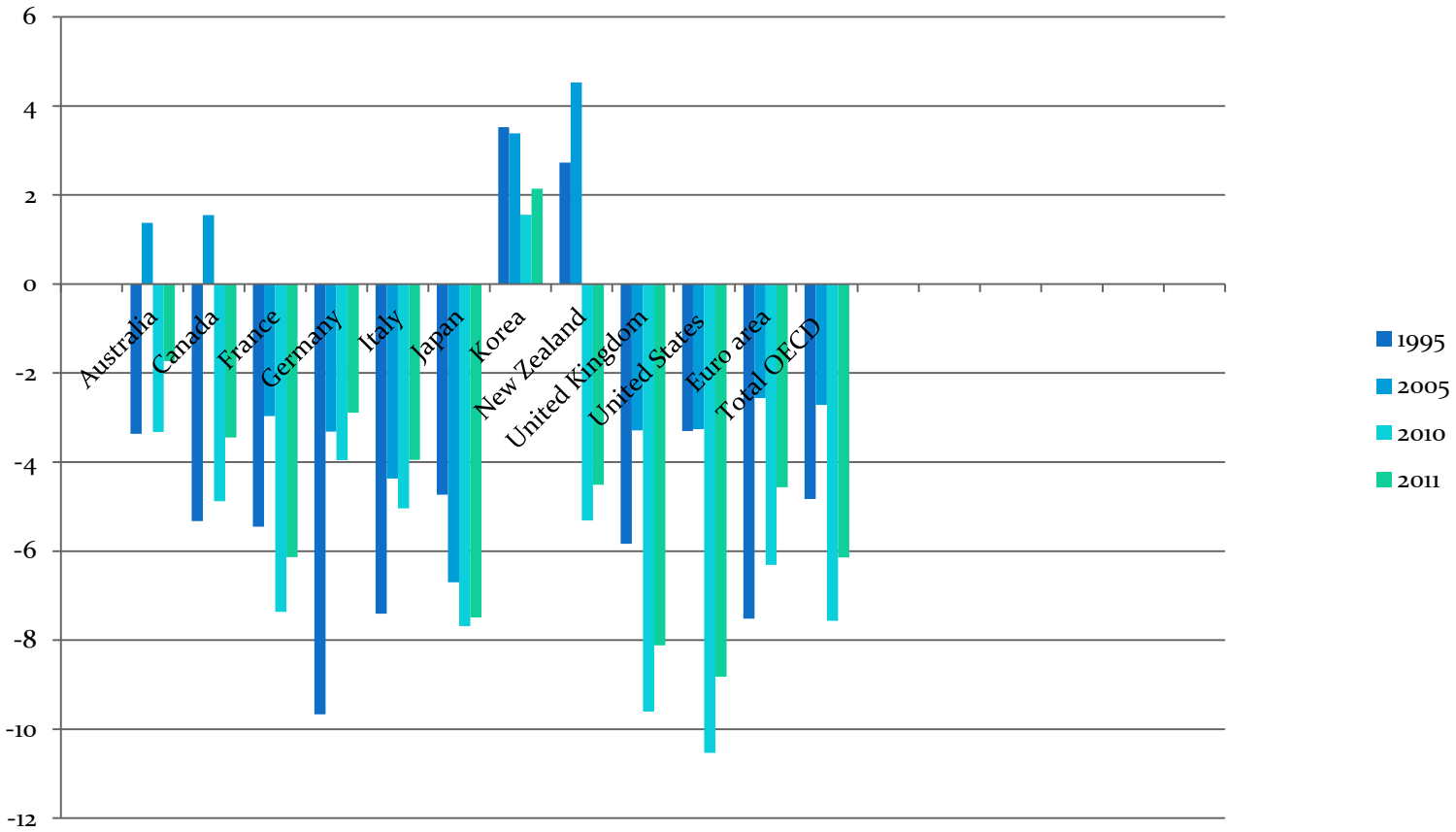
* - Poverty line is set at 1.25 international dollars a day per capita

C Unemployment Rates by Age Group 1970-2011



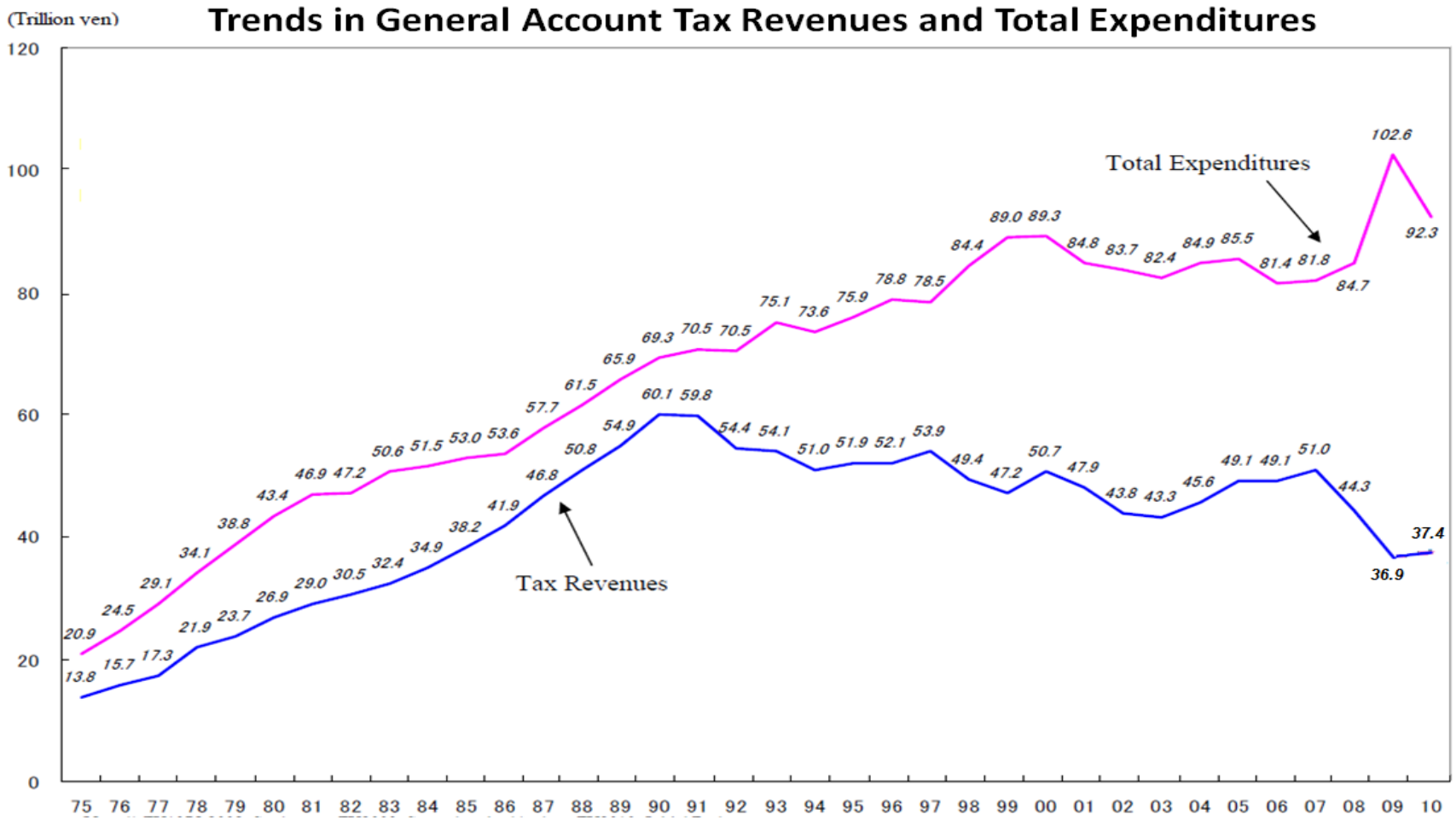
Source: MHLW, White Paper on Labour Economy 2011, Statistical Appendix, Table 3-1, p.8 and Statistical Appendix, Table 5, p.13.

D1 Fiscal Imbalances of Selected OECD Countries, 1995-2011



OECD, OECD Economic Outlook 2010, No. 88, Table 27

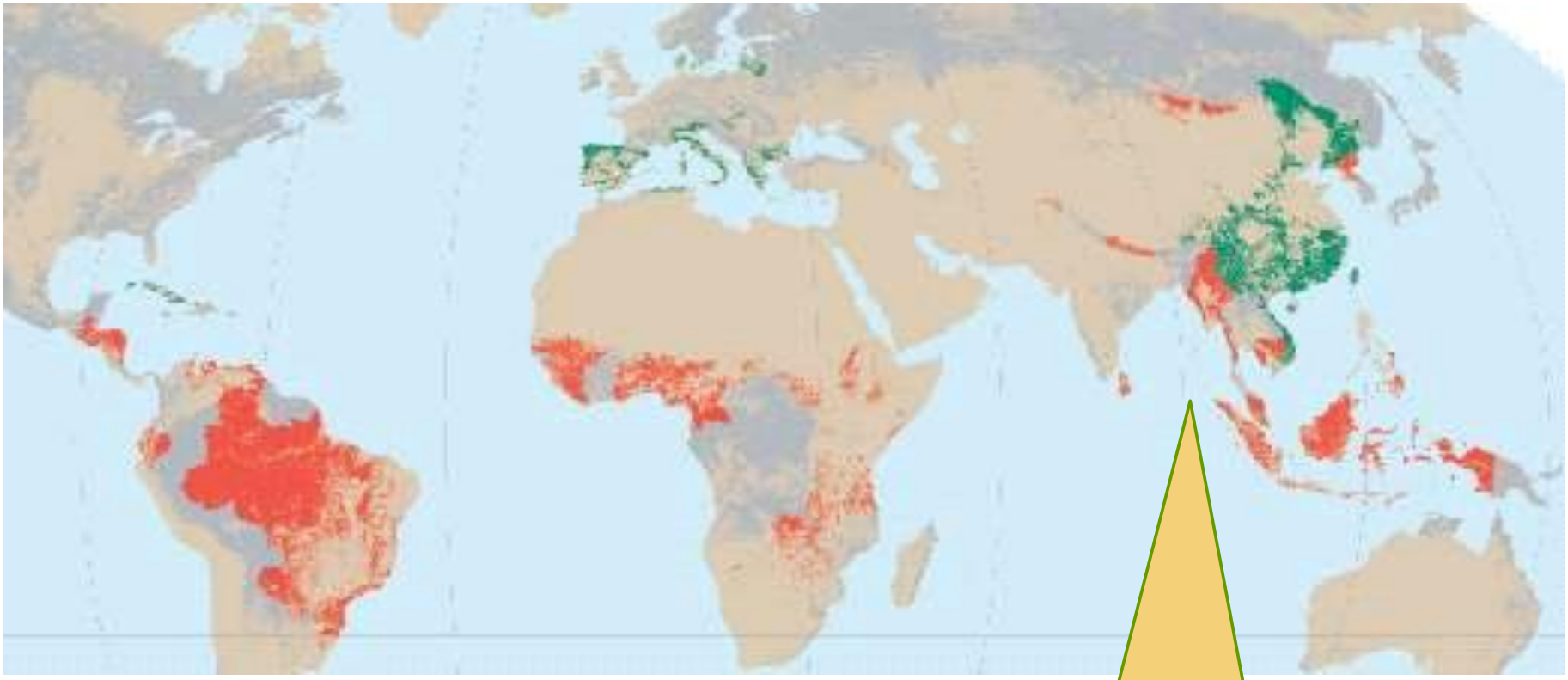
D2 Growing Fiscal Deficits: Case of Japan, 1975-2010



Bank of Japan, Financial Statistics of Japan, 1975-2010

E　Deforestation, 2000-2005

Net Change in Forest 2000～2005）



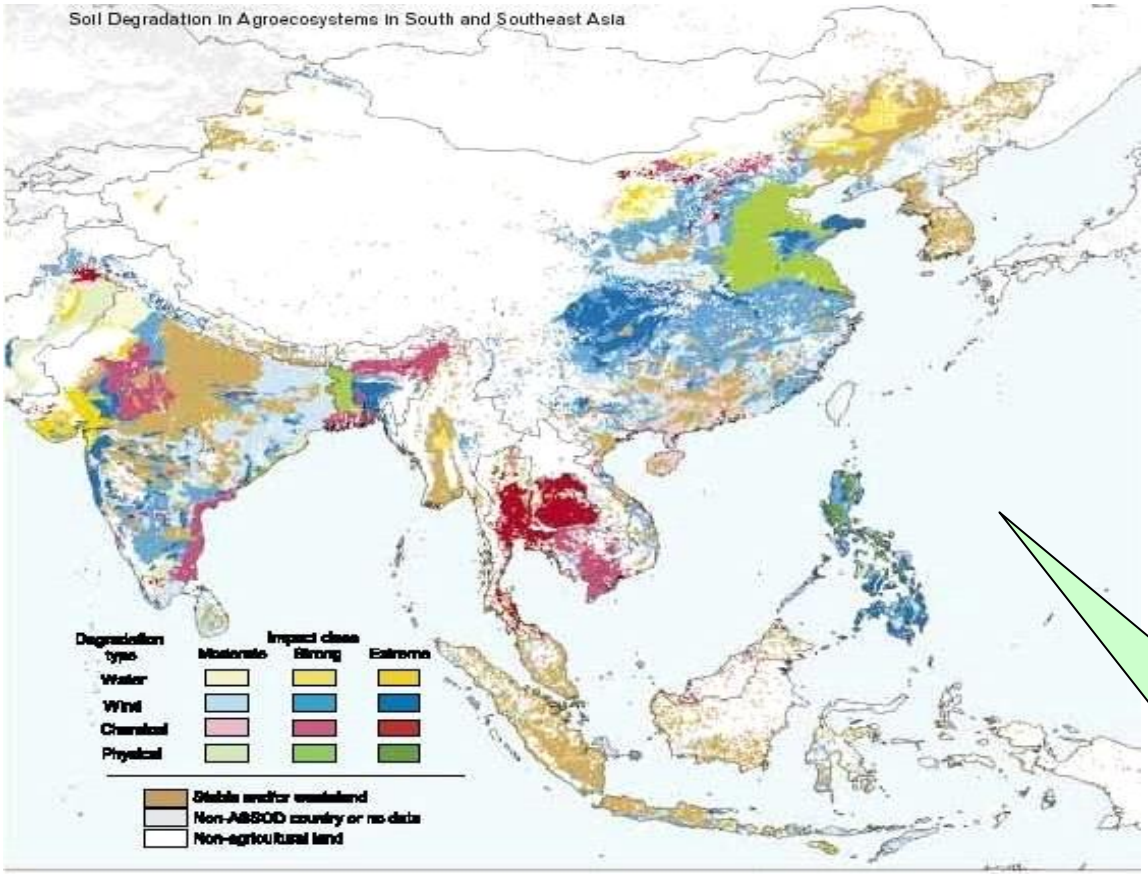
Dec. 0.5% and over per annum

Rise 0.5% and over per annum

Deforestation conspicuous in Ind
Myanmar, DPRK and Mongolia

B

F Desertification and Soil Degradation in Asia



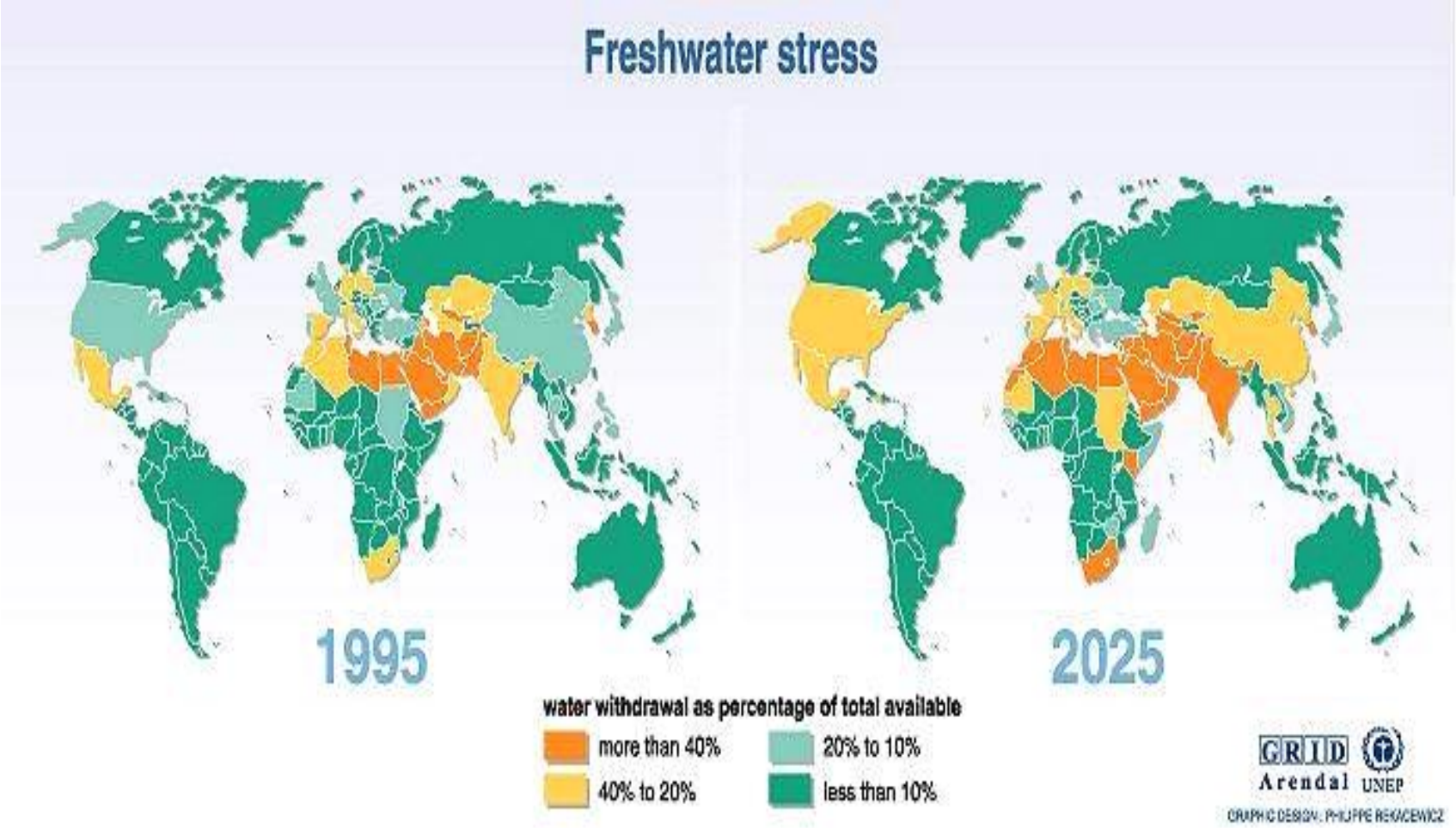
Desertification and soil degradation are both the cause and effects of global warming, forcing farmers out to cities and making them environmental refugees.

Overgrazing is one of the most widespread And problems In developing countries

Wood et al. 2000

Source: Wood et al, 2000

G Fresh Water Withdrawal, 1995-2025



Source: Global environment outlook 2000 (GEO), UNEP, Earthscan, London, 1999.

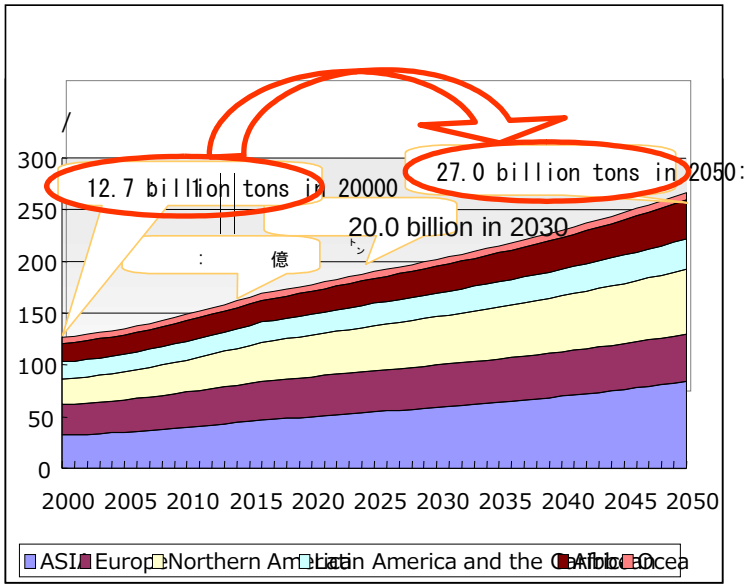
H Water Contamination :Oil Slick in the Gulf of Mexico,19 June, 2010

Source: US NASA Observatory satellite image

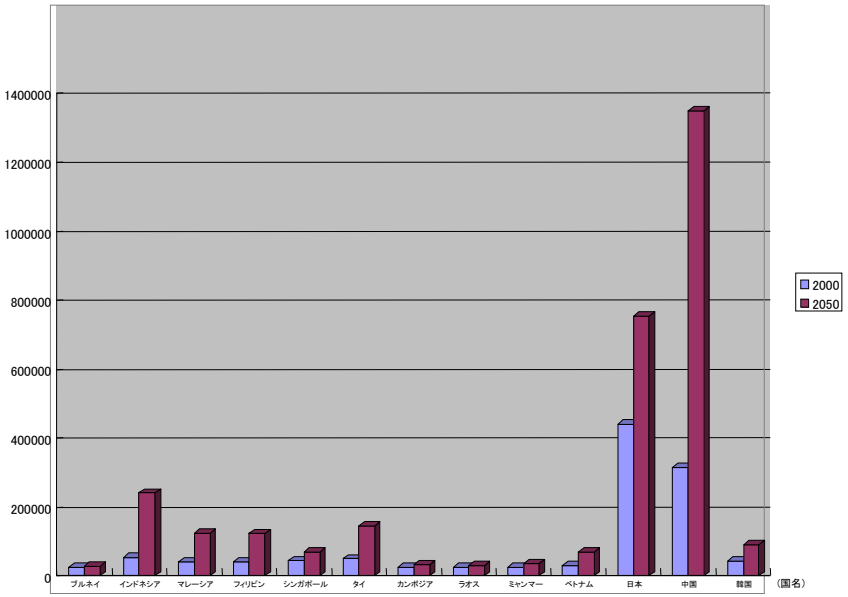
E

I Solid Wastes in Asia and the World, 2000-50

- [redacted]
  o
- Solid Waste Generation in the World 2000-2050

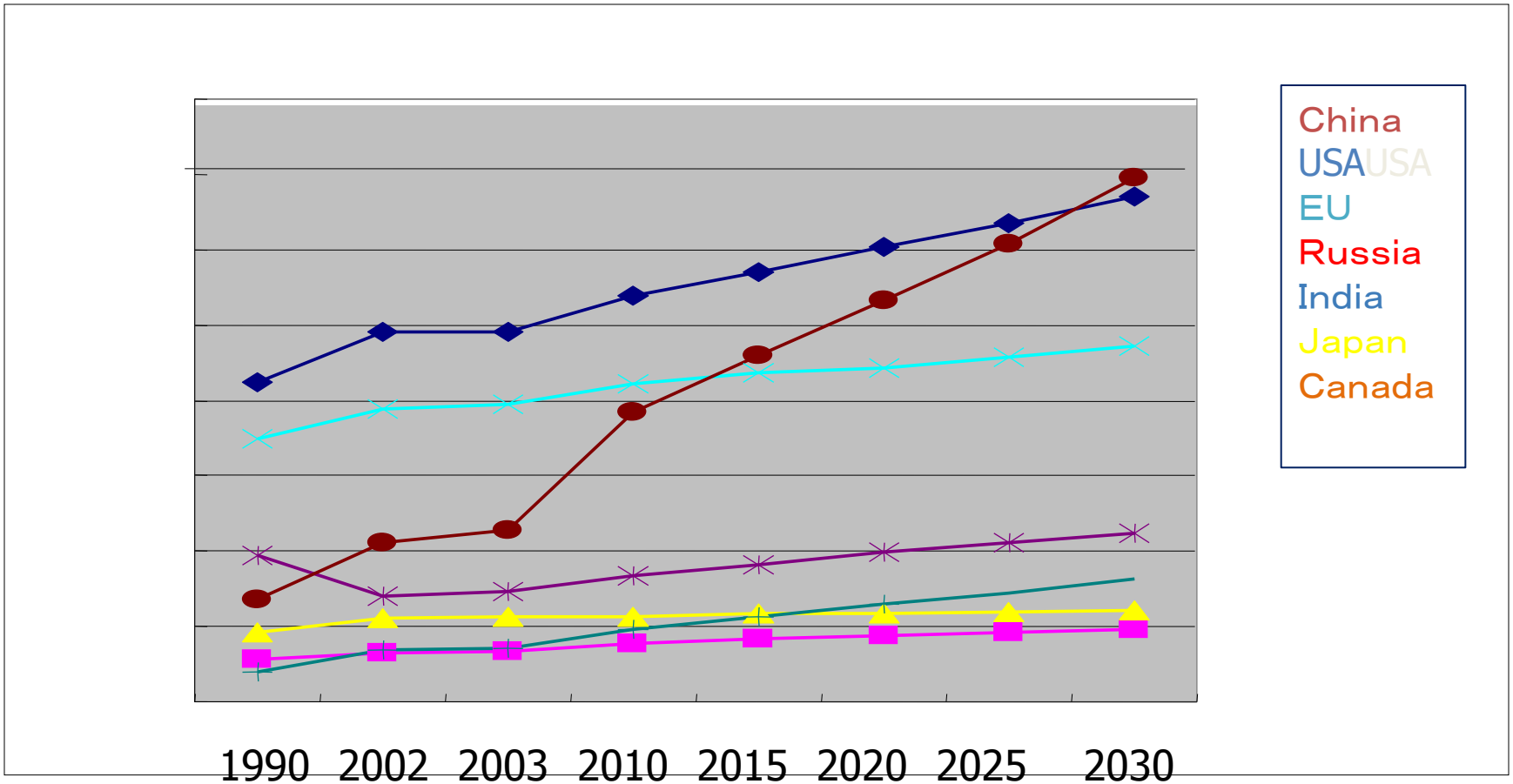


ASEAN+3, 1050 2O5O



Source: Saeko Yoshizawa & Suguru Tanaka,2007, Background and Forecasted Volume of Solid Wastes of the World. Shekdar (www.env.go.jp/council/03haikiryo310 04/ref02.pdf)

J　Energy Consumption in Major Countries, 1990-2030



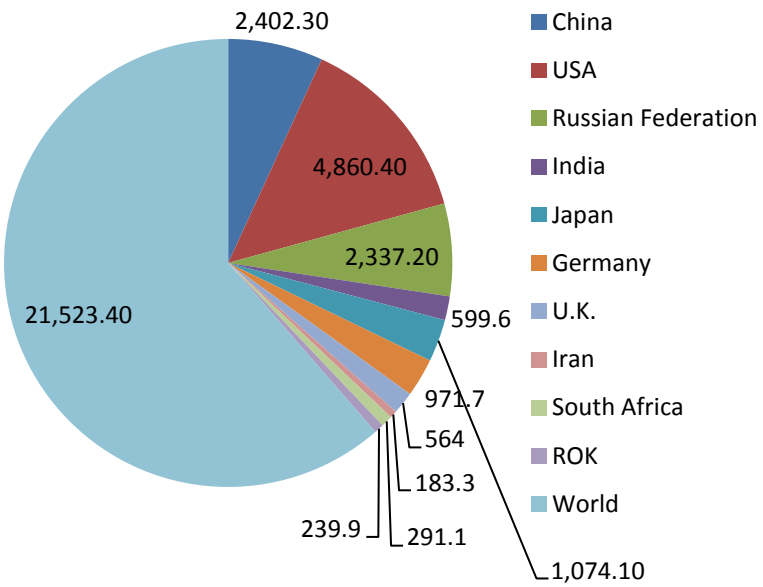
基に　IGES　作成

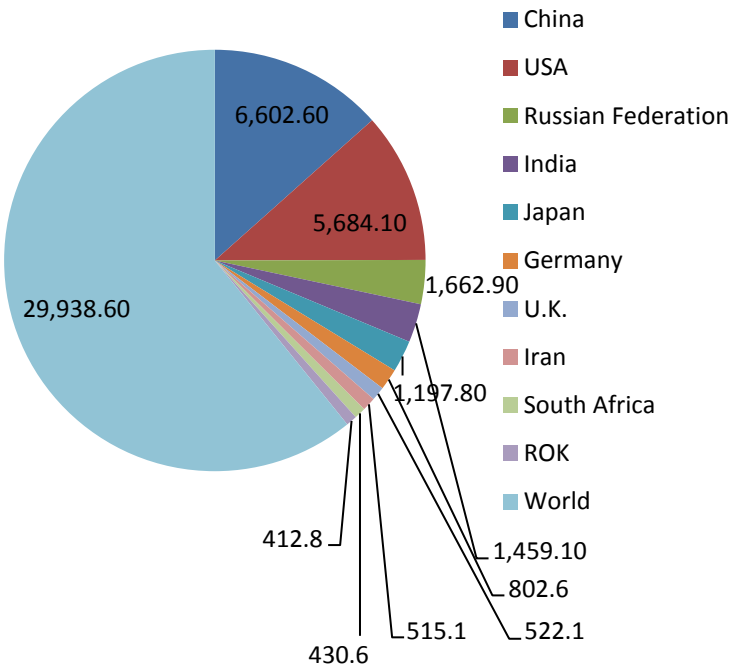
Source: International Energy Agency,
World Energy Outlook 2007

J
K CO_2 Emission 1990 & 2008

World 1990:21,523.4 MIllion tons; 25.4% from Asia

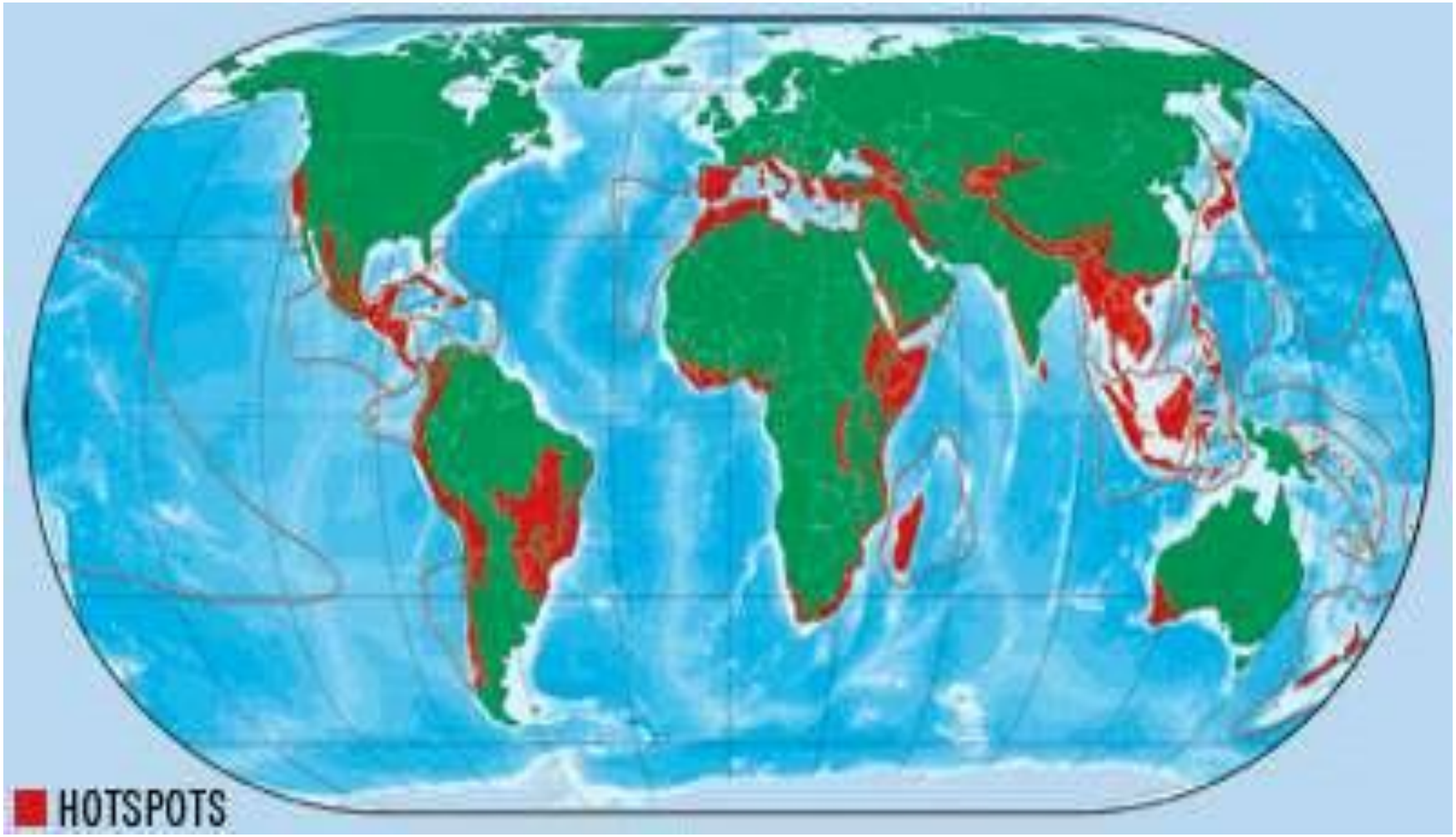
World 2008: 29,938.6 Million tons 63.4% from Asia





Source: International Energy Agency, World Energy Outlook 2010

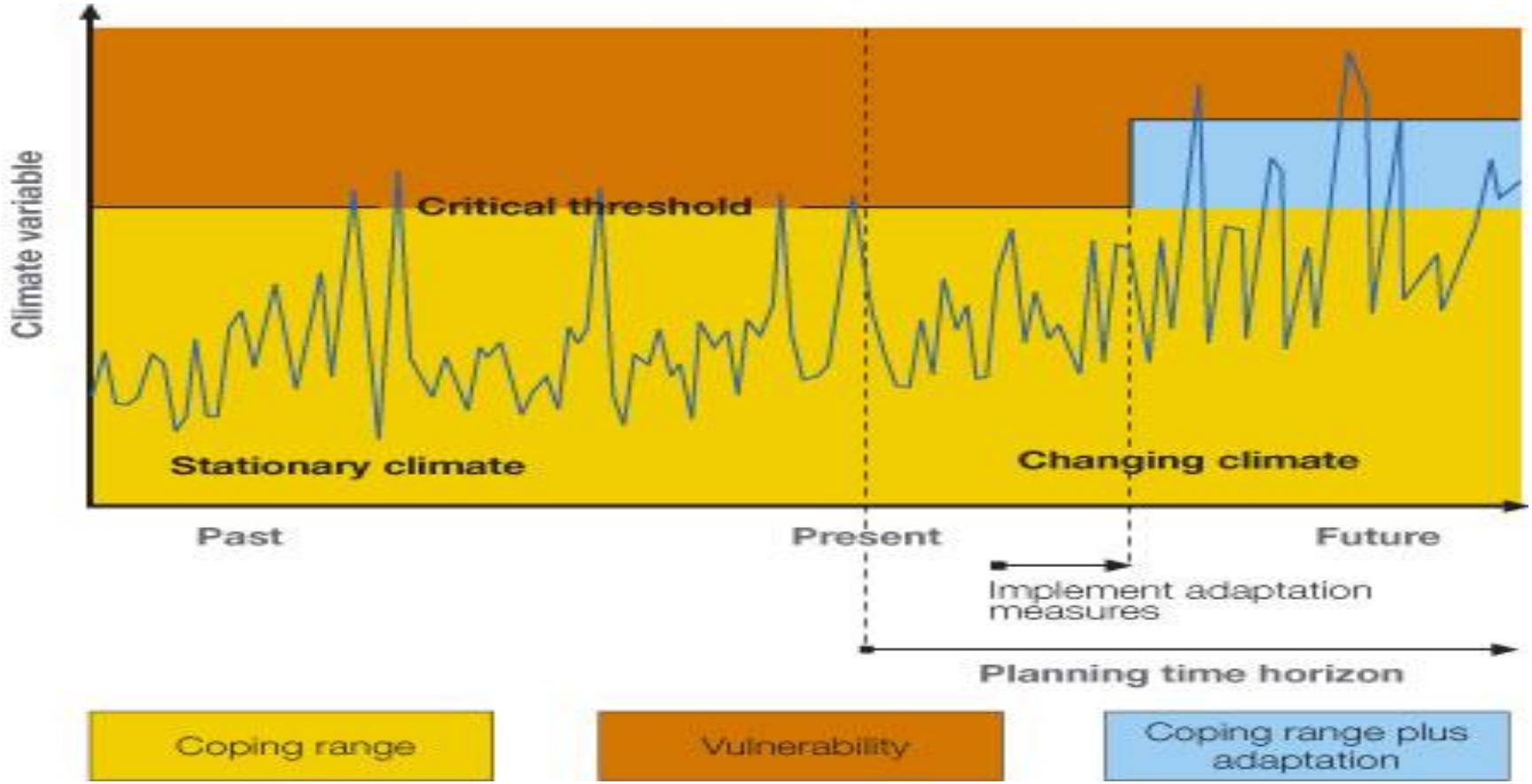
L Hot Spots of Biodiversity



Source: IGES, 2007, submission to MOE study group, based on http//www.conservation.or.jp/ Strategies/Hotspot. htm

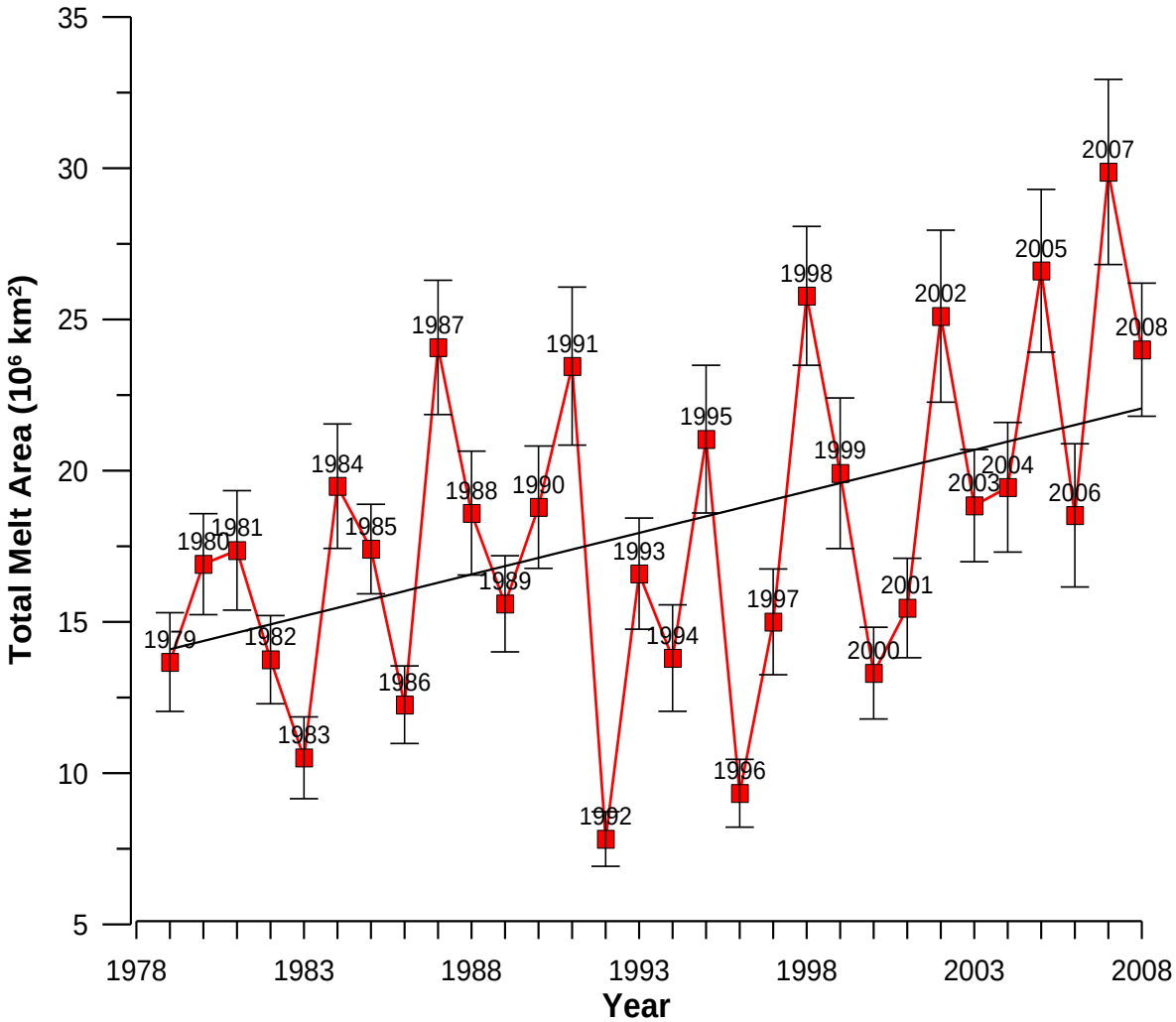
出所:

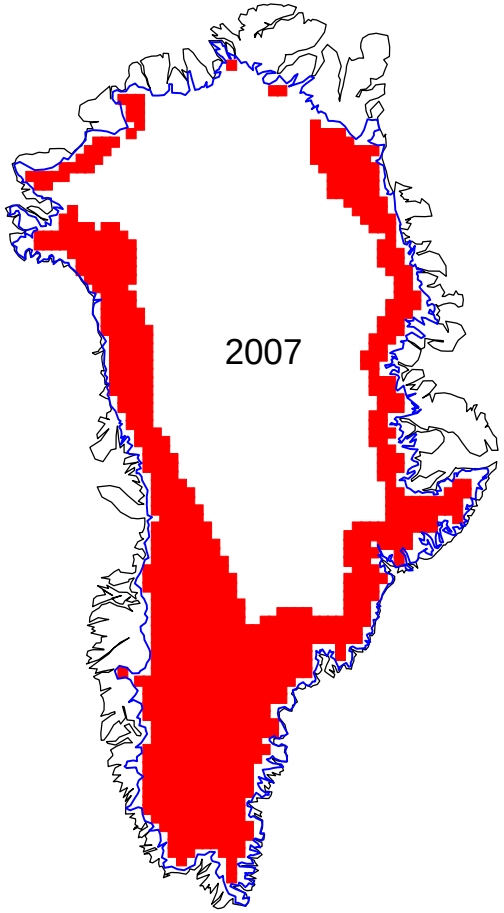
M Climate Change over the Last Few Centuries



Source: Nobuo Mimura, 2009, Shin-Gi-Chi：Goals of Graduate Program on Sustainability Science at Ibaraki University, presented at the Australia-Japan International Educational Exchange Symposium on Knowlede and Skills for Sustainability.

M1 Snow melting in Greenland, 1979-2008



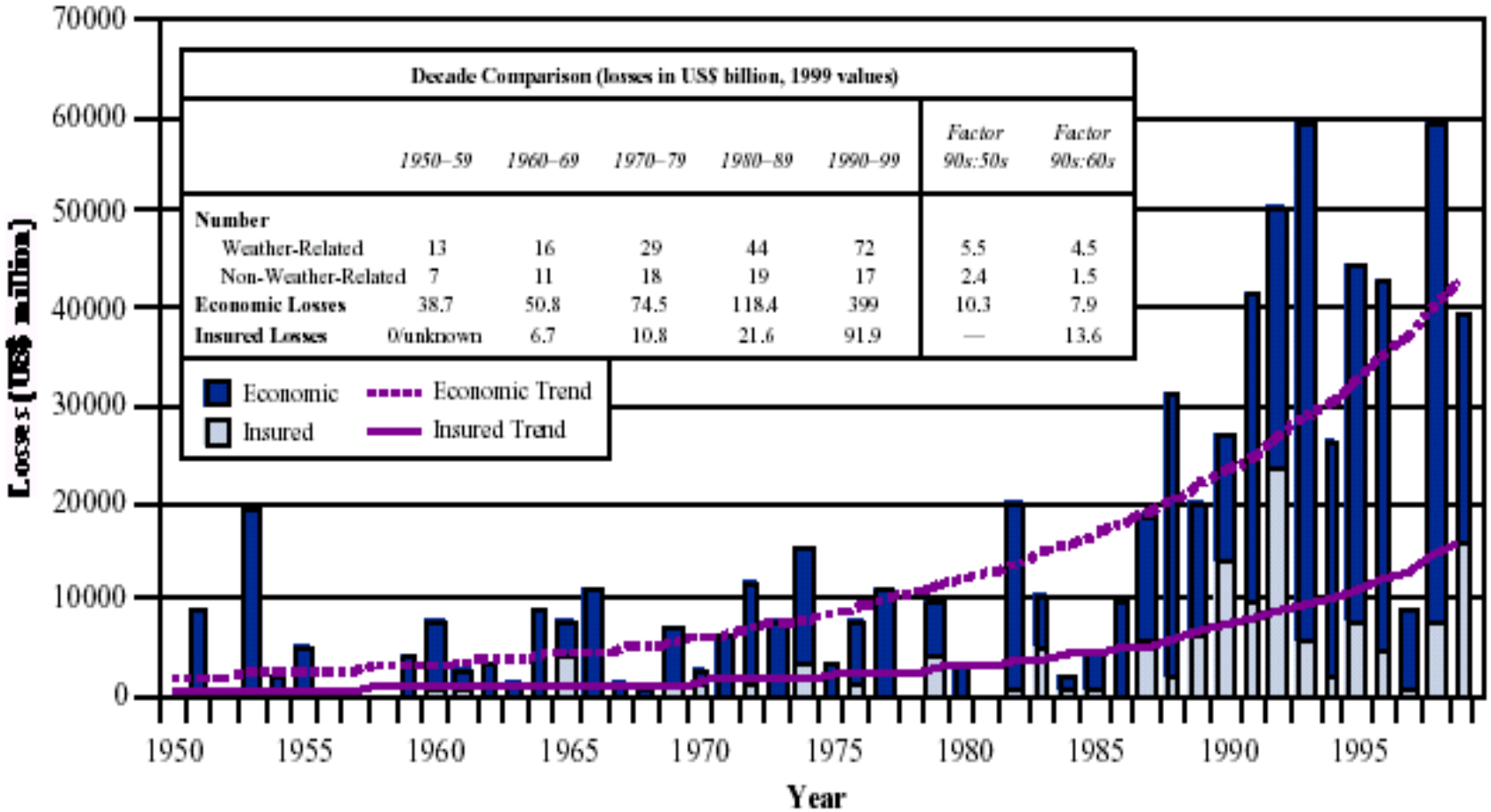


Area on Greenland with snowmelt. Graph credit: Konrad Steffen, Univ. Colorado

M2 Melt descending into a moulin, a vertical shaft carrying water to ice sheet base.

Source: Roger Braithwaite, University of Manchester (UK)

N Incidence of Natural Disasters,1950-2000



Source: IPCC, 2007, AR4.

O Sources of Uncertainty in the Second Decade of the 21st Century

	Low	Moderate	Serious	Very Ser.
High energy prices	**12 (12)**	**28 (24)**	**42 (38)**	**18 (22)**
Water pollution & shortage	**28 (17)**	**35 (27)**	**30 (37)**	**6 (15)**
Global warming	**35 (22)**	**29 (25)**	**26 (28)**	**10 (22)**
Failure of the Doha Round	28 (22)	33 (35)	24 (25)	12 (13)
Protectionism	**26 (24)**	**38 (31)**	**29 (34)**	**6 (8)**
Terrorists	**21 (27)**	**33 (31)**	**26 (26)**	**8 (11)**
Sharp decline in asset markets	31 (22)	37 (39)	23 (24)	6 (8)
Natural disaster	**34 (30)**	**34 (32)**	**24 (24)**	**5 (9)**
Current account imbalance	30 (22)	38 (40)	21 (22)	6 (7)
Avian flu and other pandemics	**33 (30)**	**32 (27)**	**17 (20)**	**6 (7)**
Proliferation of preferential TAs	40 (22)	36 (39)	18 (20)	4 (5)

Source: PECC, State of the Region, 2007-08, Table 2, pp.45-46.

Notes: Respondents to the above survey taken in 2007 were: 107 businessmen, 68 government officials, 166 academics and researchers, 14 media persons, 5 civil society representatives and 22 others. Of these 382 respondents, 228 are from Asia.
Figures are for the next 1-2 years, whereas those in brackets for 3-5 years or longer.

The two great challenges of the 21st Century are the battle against poverty and the management of climate change.

On both

we must act strongly now and expect to continue that action over the coming decades. Our response to climate change and poverty reduction will define our generation.

If we fail on either one of them, we will fail on the other.

Low-carbon growth: the only sustainable way to overcome world poverty、by NICHOLAS STERN, WDR2010

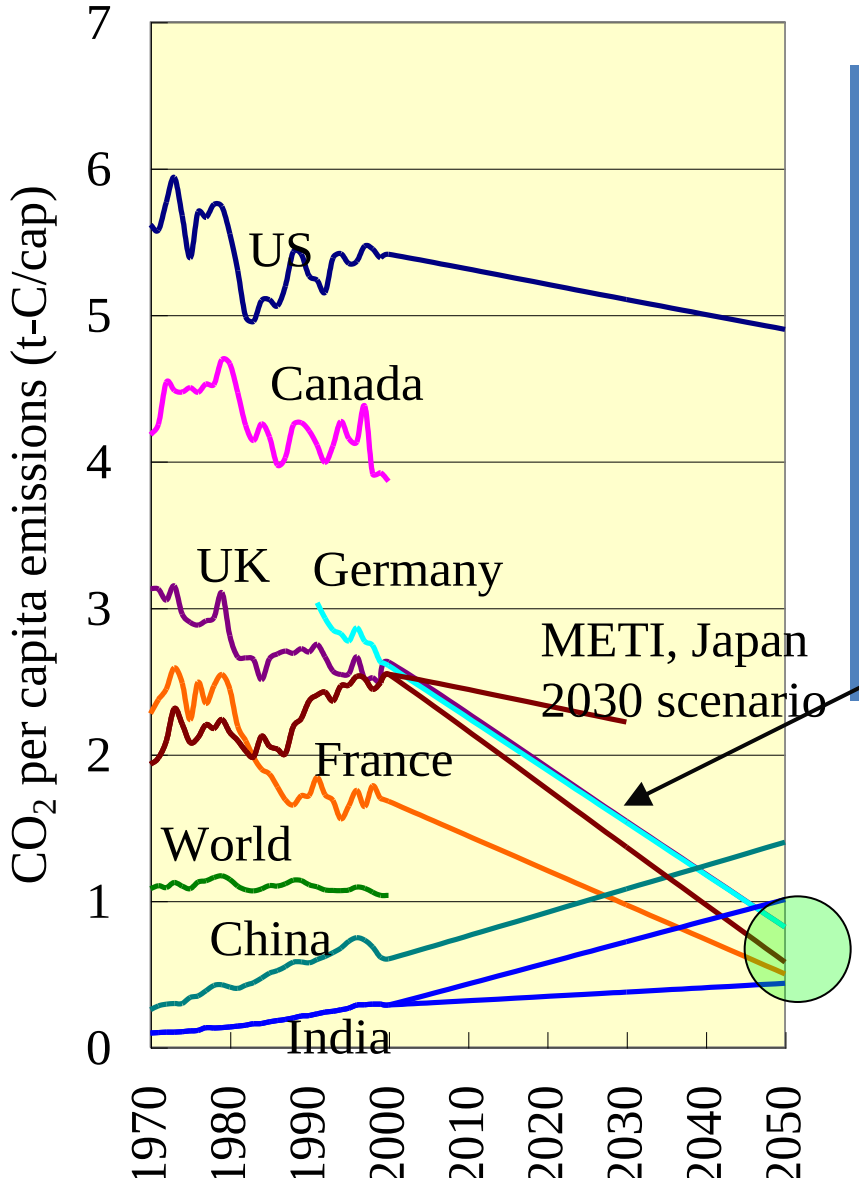
The defining challenge of our age is to safeguard Earth's natural processes to ensure the well-being of civilization while eradicating poverty, reducing conflict over resources, and supporting human and ecosystem health.

Source: A State of Planet Declaration, 29 March 2012

1. Priority for a Low Carbon Society (LCS) in the Context of Sustainable Development

1. Priority to Sustainable Development: Poverty reduction, equitable and inclusive development, sustainable consumption and production (SCP), sustainable management of natural resources, and environmental conservation and protection, as well as preservation of diverse cultural and social values within and across countries;
2. Building Sustainable Communities: Based on the fundamental principles of the respect for human rights and dignity, self-reliance, transparency and full access to public information, accountability and rule of law, social justice for all, participatory governance and the respect for diversity, as well as decentralization of authority to local communities and sub-national regions; and
3. Installing a Low Carbon Society (LCS): Meeting all the LCS requirements in technological and industrial development, day-to-day living and community livelihood, taking fully into account physical endowments, demographic constraints, social priorities and national interests, as well as international regulatory regimes under which governments and the business community and, for that matter, all the other stakeholders must interact.

1A Setting Gross & Per Capita CO_2 Emission Targets, 1970-2050



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

$200/t-C scenario

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

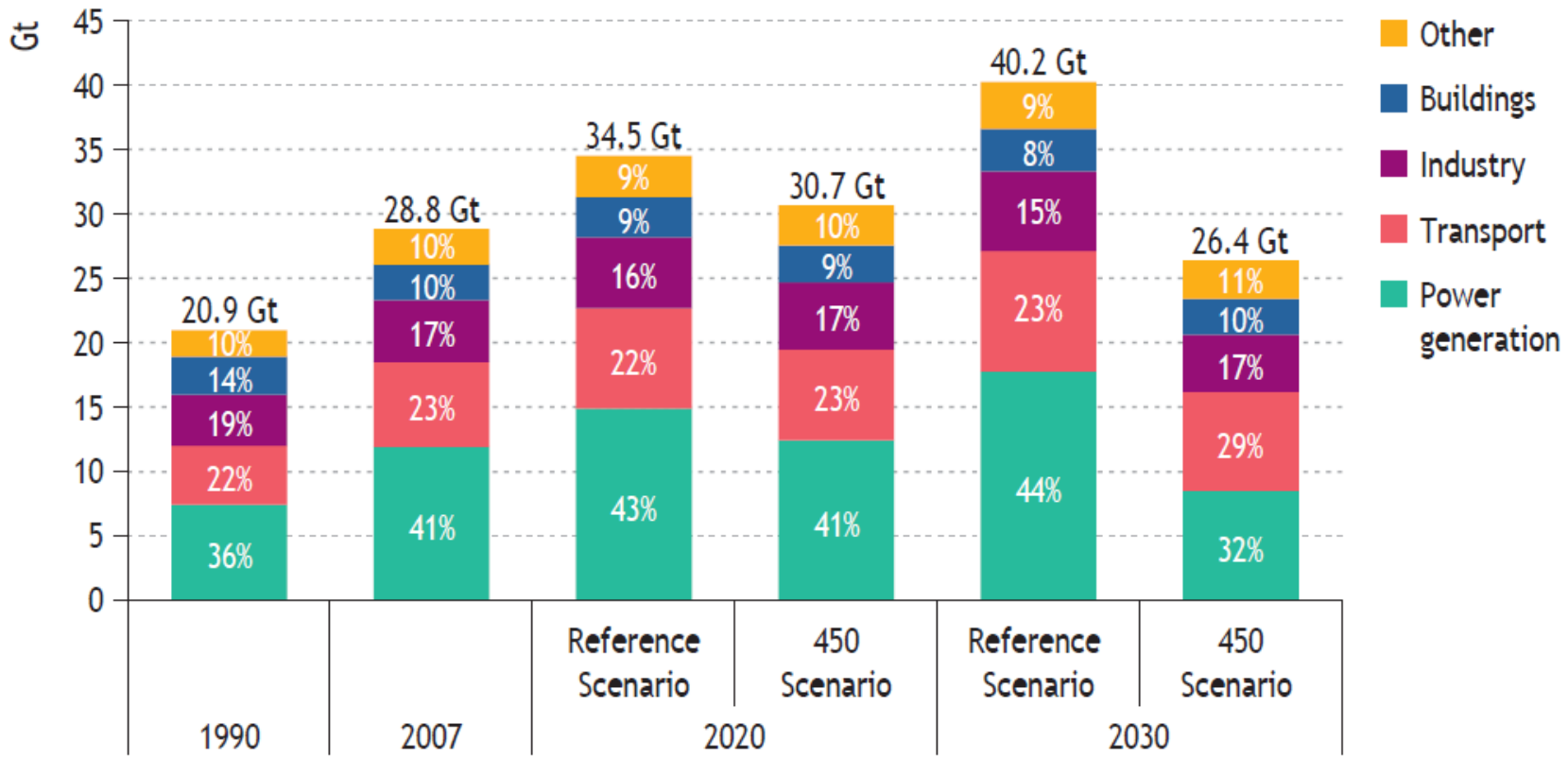
2. Major Requirements for Promoting LCS

1. National Strategic Policy Requirements: Legislative, administrative and judiciary systems and incentives that are conducive to installing LCS at the local and national levels;
2. Technical Requirements: Energy-saving technology, use of clean fossil and renewable energy, resulting in the low level of CO2 emission per unit of output in the production process;
3. Industrial Requirements: Industrial restructuring oriented toward the production and distribution of low carbon products and services (LCPS) in the national economy with a view to promoting climate change adaptation and mitigation;
4. Physical Requirements: Landscape covered by woods, forests, rivers, brooks, lakes and, under some cases, surrounded by ocean that are depository of CO_2 emitted, as well as communities, if at all possible, with smaller number of inhabitants per square kilometer;
5. Demographic Requirements: Lower rate of population increase per annum; but ensuring increase at the replacement rate for the long-term health of the economy;
6. Social Requirements: Environmental awareness and action in favour of LCS among the people through concerted efforts of all stakeholders; and
7. International Requirements: Global compacts and international protocols and agreements encouraging the international flow of goods and services that contributes to LCS, while penalizing the opposite.

3.1 Role of Business Community in Developing Technology and Production Processes for Reducing CO2 Emission

1. Innovating Energy-Saving Technology: Essential condition for staying competitive on the national and global markets, as well as meeting their corporate social responsibility;
2. Increasing Reliance on Clean Fossil and Renewable Energy Sources: Aligning with community preferences and enforcing corporate compliance with local guidelines and national and international legal requirements, as well as through financial and human resource contribution to local research centres on low carbon technology development;
3. Strict Observance of all the Nuclear Safety Standards: In the construction, operation, maintenance and decommissioning of nuclear power stations in line with the international conventions and guidelines set by International Atomic Energy Agency, in addition to observing those laws and regulations applicable to specific localities and conditions;
4. Spreading Clean Energy Technology and Management System to Developing Countries: Through MNC subsidiaries and technology licensing and joint development of clean energy technology and production processes; and
5. Government Clean Energy Policy Formulation and Implementation: Through fiscal and financial incentives for R&D, accelerated depreciation allowances and international trading regimes in favour of clean energy technology.

3.1A CO2 Emission in Asia, 1990－2030



Note: Nearly half of the CO2 emission (~20Gt) in 2030 will come from Asia in the reference scenario, and more than half (11.6Gt) of the Asian emission will come from China.
Source: IEA, World Energy Outlook 2009;NIES、S-6 IRNet 2010

3.2. Upgrading the Industrial Structure in favour of LCPS in the National Economy with Governments Support

1. Meeting the Consumer and Community Preferences at Home and Overseas for LCPS: Simultaneous achievements of competitive advantages and national and global preferences through technological and marketing innovations;
2. Installing the Industrial Standards and Measurements for LCPS in all Sectors at the International Level: Facilitating the transformation through International Standards Organization (ISO) of production and trade within and across all countries in favour of LCPS;
3. Government Support to LCPS: Through fiscal and financial policy measures to corporations producing and marketing LCPS at home and overseas and government's LCPS procurement programmes at the national and international levels, consistent with the WTO rules; and
4. Increasing Bilateral and Multilateral Official Development Assistance (ODA) Programmes in favour of LCPS: Requesting developing countries to give priority to the investment and production of LPCS through their national development plans and programmes.

3.2A Changing Industrial Structure of Japan, 1980-2025

Industry	1980	1990	2000	2010	2025
Mining	0.6	0.3	0.1	0.1	0.1
Manufacturing	22.5	24.4	22.2	21.2	19.9
Construction	11.3	10.4	7.3	6.1	4.7
Public utilities	3.0	2.7	2.7	4.1	4.9
Trade	11.7	12.5	14.1	15.5	14.6
Finance & insurance	3.3	5.3	6.1	7.7	7.8
Real estate	11.8	11.5	11.5	11.1	10.9
Transport& comm.	6.4	6.7	6.9	7.3	9.0
Services	17.8	17.1	20.5	26.9	28.0

Source: Cabinet Secretariat, White Paper on Japanese Economy, relevant years.

3.2B Shares of Overseas Output for Japanese Manufacturing, 2002, 2008 and 2025

	2002(%)	2008(%)	2025(%)*
All industry	29.3	34.5	42.6
Food processing	11.7	17.1	21.3
Textile s & products	22.3	38.3	46.7
Chemical products	20.1	22.8	29.7
Iron & steel	7.3	8.8	10.9
General machinery	19.1	23.0	30.2
Electrical & electronics	36.3	41.0	54.3
Automobiles	41.4	51.9	63.2
Precision equipment	29.0	32.4	38.2

Sources: JBIC, 2009 Survey of Japanese Corporate Activity Overseas
R.Hirono, Foreign Direct Investment: Performance, Prospects and Issues, 31 March, 2012,
on the assumption that the JPY will rise to US$1=\72.00

3.3. Enlarging and Improving Physical Landscape in favour of LCS in Cooperation with Governments

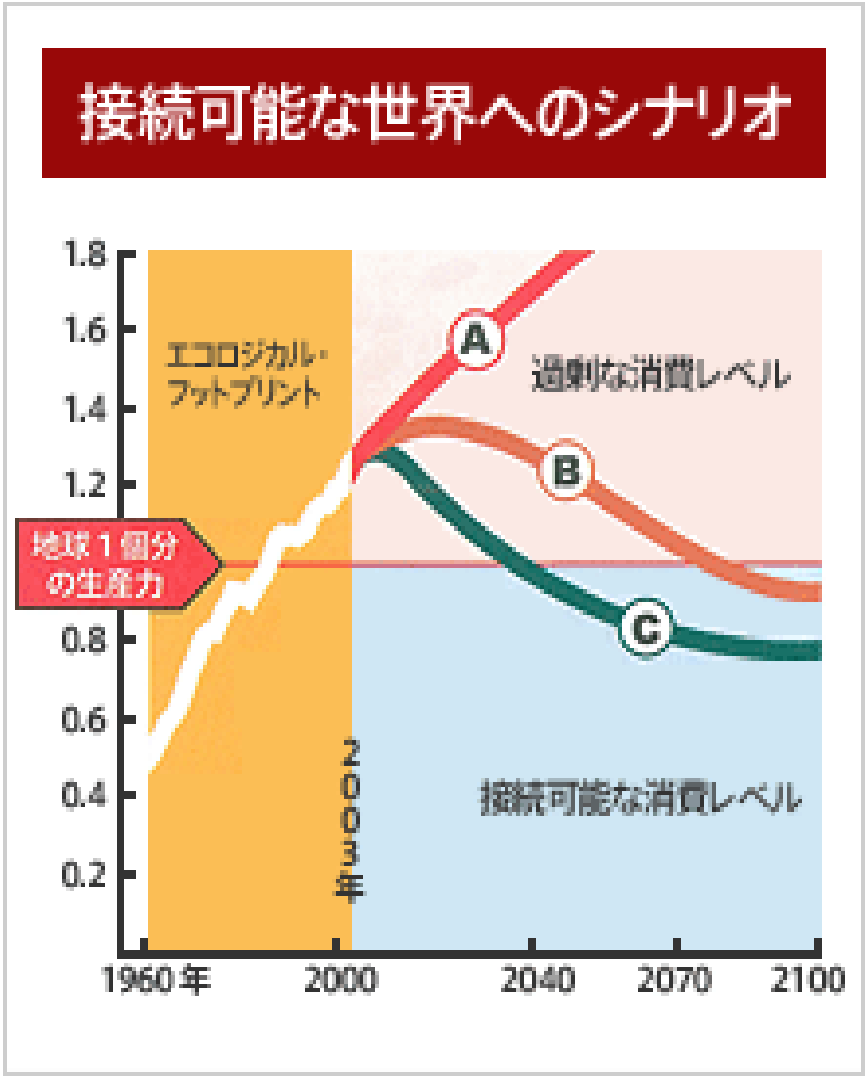
1. Taking Initiatives to Green Corporation's Premises: Provide a certain ratio of the total corporate space for open ground and greenery;
2. Collaborating with Local Chamber of Commerce and Industry in Establishing Local Green Investment Fund: Assistance to local communities to finance the expansion and maintenance of municipal parks, lakes and forestation programmes;
3. Promoting Public-Private Partnership in Urban Renewal and Redevelopment Plan: Encourage corporations to join local governments and communities in renovating shopping malls, sports/recreation centres and other public space as part of sustainable city development programmes; and
4. Government Support to Tropical Forest Conservation: Encourage private sector corporations to join donor country governments in financing REDD and reforestation programmes in developing countries.

Source: IUCN Annual Report 2009

3.4. Positively Responding to Demographic Constraints in Association with Governments

1. Assisting Developing Country Governments in Family Planning through their Subsidiaries' CSR Programmes: Joining local communities in carrying out family planning (FP) seminars and workshops and distributing FP Kits/Packs to their employees;
2. Assisting Central and Local Governments in Empowering Women through Basic Education for All (BEFA) and Primary Healthcare for All (PHFA) Programmes: Educated women tend to have less childbirth, due partly to lesser under-5 mortality rates and partly to better professional and sub-professional career opportunities;
3. Assisting Governments in Developing Countries in Poverty Reduction: Better-to-do families tend to have less childbirth and be more concerned with sending their children to secondary and tertiary education, in addition to their governments more capable to provide their citizens with better education and health programmes; and
4. Joining Central and Local Governments in Promoting SCP around the World: Reducing population pressures on land and natural resources through sustainable use.

4.1 Role of Business Community in Promoting the Early Installation of LCS in the Context of SD



1. Installation of LCS must begin at Individual Households, Corporations and Public Bodies, requiring both Commitment of all Members and Enabling Environments: Major contributors to CO2 emission are no longer confined to industry, involving commercial buildings, transportation and consumer households;
2. Building the Enabling Environments for LCS at Local and National Levels, therefore, requires all Stakeholders including Governments to Cooperate and Collaborate: Government strategic decisions, legislative action and the formulation and effective implementation of policies for LCS in the context of sustainable development in all sectors and
3. Corporate Leadership and Commitments are Essential: Corporations are given freedom to pursue their objectives and goals as long as consistent with the laws and regulations. In return, corporations are expected by all other stakeholders to contribute to the public goods going beyond legal compliance, in pursuit of economic, social, environmental and cultural sustainability, based on the shared principles of promoting resource efficiency, productivity, fair and just distribution of benefits to all, inclusive and equitable development, environmental protection and respect for cultural and social value diversity.

4.2. Enhanced People's Environmental and Sustainable Development Awareness in Association with Governments and all Other Stakeholders

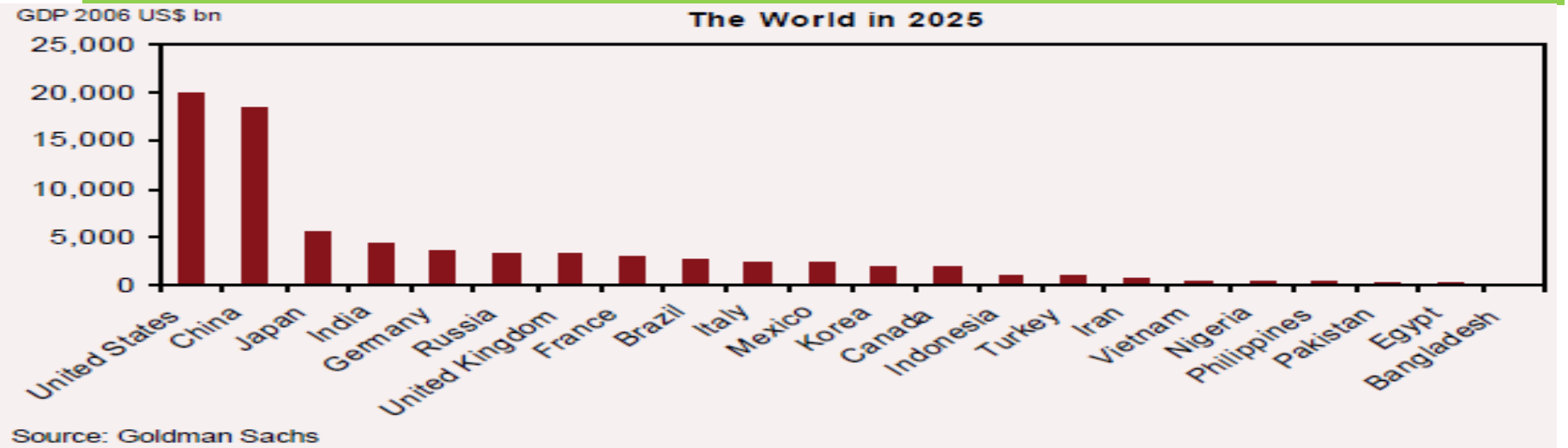
1. Installing Environmental and Sustainable Development Education (ESD) and Experiential Learning in Corporate Training Programmes: Enhancing corporate employees' environmental and sustainable development awareness and encouraging them to participate in ESD at primary and secondary schools in their residential communities and in community learning programmes;
2. Assisting NGOs in Environmental Conservation and Protection Activities at Home and Overseas; Through co-sponsoring environmental awareness campaigns and establishing private sector foundations to finance NGOs' environmental activities and ESD; and
3. Collaborating with Local Governments and Other Stakeholders in Planning and Implementing Annual Environment Week's Programmes: Conducting intensive campaigns for enhancing people's environmental awareness, for promoting ESD and 3R's (reduce, re-use and recycle) and the conservation and protection of Nature, saving energy and water resources, reducing greenhouse gas emission, installing solar panels at individual households and increasing biodiversity.

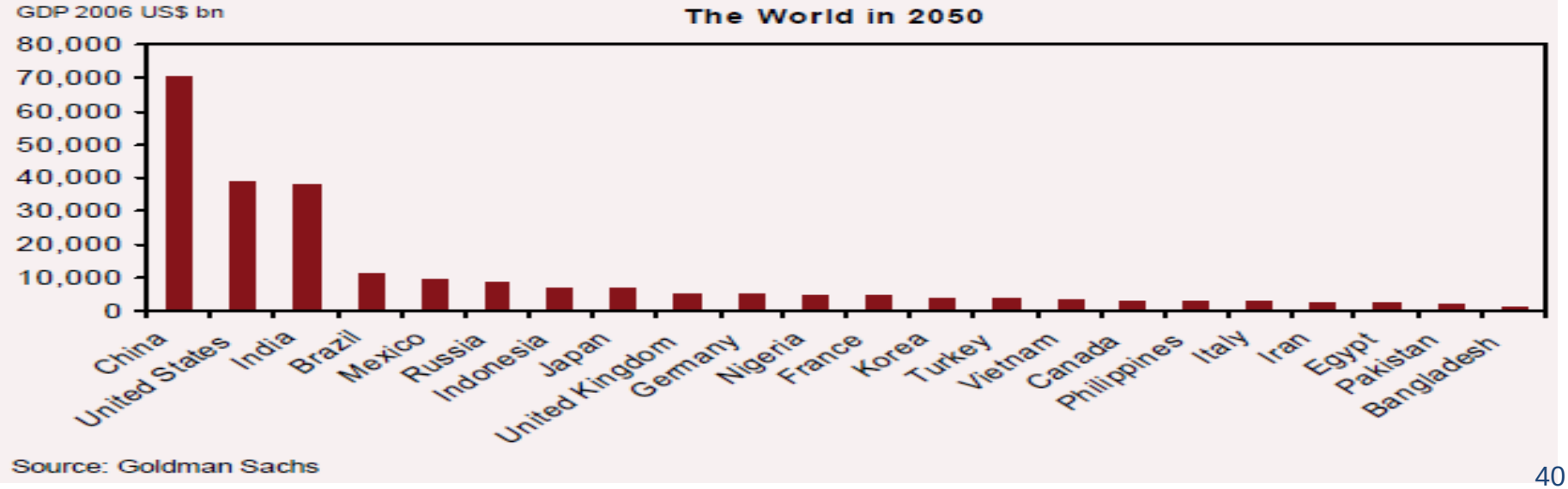
Source: MOFA 062010.

4.3 Installation of LCS in the Context of SD at the Regional and Global Levels

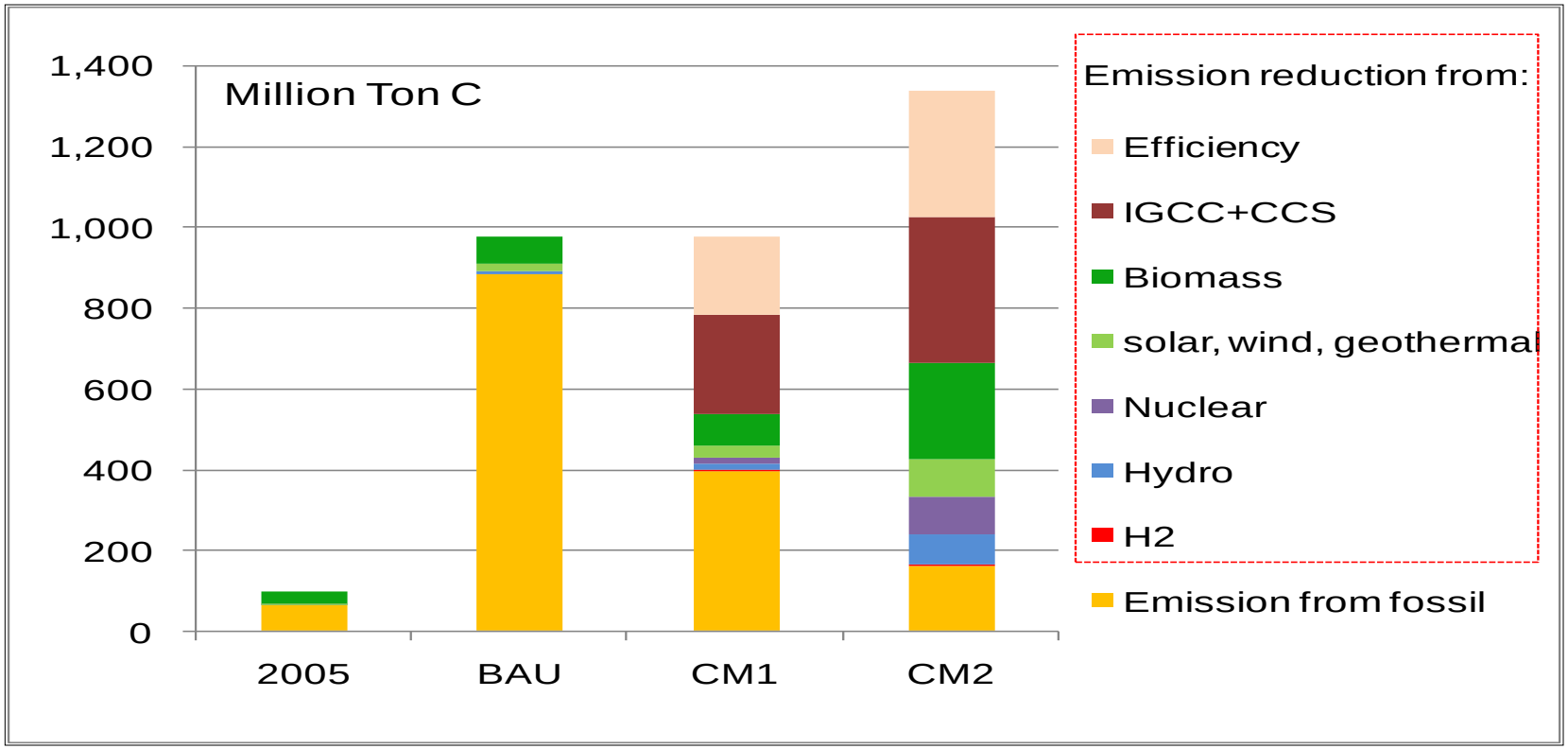
1. Installation of LCS has to be at the Global Level: GHG, once emitted, knows no national boundary, thus requiring international agreements as shown by Kyoto Protocol;
2. All Countries emitting GHG, regardless of Developed or Developing, must observe such International Agreements with a view to Installing Global LCS: In the absence of trans-national government, the secretariat of the UNFCCC must monitor the observance of each and every country which in turn has to be monitored by its government with respect to each and every emitter, individual households, corporations and public institutions;
3. The two Principles of "Common but Differentiated Responsibility" and "Respective Capabilities" now in Place: These Berlin Mandate and COP17 Consensus reached at Durban must be adhered to by all Countries party to Kyoto Protocol and any new international convention on climate change and any other global challenges; and
4. Good Corporate Citizenship should remain the Spirit of MNCs Operating around the World: MNC could be a model for SMEs and all other corporations operating in all countries and in particular in developing countries, where economic development tends to be given priority rather than LCS and environmental protection, in promoting clean fossil and renewable energy, clean technology, clean production processes, LCPS, clean mining, clean development of natural resources, forest conservation including REDD, reforestation and ESD, all contributing to the installation of Global LCS.

4.3A World Economy in 2025 and 2050





4.3B Possibilities of CO2 Emission Reduction through Different Policy Measures, 2005-2050



Source: Dewi, Matsuoka, Gomi, Ehara, Kainuma and Fujino, Scenario Study on Low Carbon Society Indonesia 2050 , 2009.

Note: CM1 under the assumption of 22 times of 2005, annual 6.9% economic growth rate, while CM2 under that of 38 times of 2005 at 8.4% growth rate

4.4 Assistance to the International Community in Achieving Millennium Development Goals (MDGs) and Support to Post-MDG Sustainable Development Goals (SDGs)

1. Working in Collaboration with all Stakeholders for Achieving MDGs and SDGs: Closest possible networking among all stakeholders on the basis of comparative advantages (CAs) on all global challenges including LCS whereby Information, knowledge banking and technology, finance and management innovations are CAs of the Business Community;
2. Optimizing the Synergy Effects of Holistic Approach to all Global Challenges; So that any solution to one major global issue will reinforce solution to all other major challenges on the national and international agenda, as shown in all corporate global strategies and goals; and
3. Prioritize Corporate Strategies and Policies at the National and Global Level in favour of the Poor and those in Socially Disadvantaged Positions; Empowerment of the masses of people and social institutions are the key to inclusive and equitable development as much as to expanding the bottom of the pyramid (BOP) in the local, national and global markets and augmenting their corporate competitive strength on these markets.
4. SDGs, shared by all Countries at RIO+20 in Brazil in June 2012, will set the Global Goals for the International Community in the Second Decade of the 21st Century: SDGs will possibly include all the MDGs unfulfilled by 2015 and set the Global Goals for Sustainable Economies including SCP, Sustainable Societies and Sustainable Eco-Systems whereby the internationally agreed principles of Human Dignity, Social Equity and Justice, Participatory Governance, Respect for Cultural and Social Values Diversity and Caring Mind will all prevail. Arriving at an international consensus on the Ethical Framework for all Human Conduct including Corporate Conduct is much hoped for at the RIO+20.

Source: MOFA 062010

Thank you
for your Kind Attention !

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