

ISAP 2009

Towards Copenhagen:
A New Development Pathway to a Low-Carbon
Sustainable Asia and the Pacific

IGES

**LOW CARBON SOCIETY FOR
SUSTAINABLE ASIA AND THE PACIFIC**

低炭素社会：持続可能なアジア太平洋のために

Keynote Speech

基調講演

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International Forum for Sustainable Asia and the Pacific -
Towards Copenhagen: A New development Pathway to a Low-
Carbon Sustainable Asia and the Pacific.

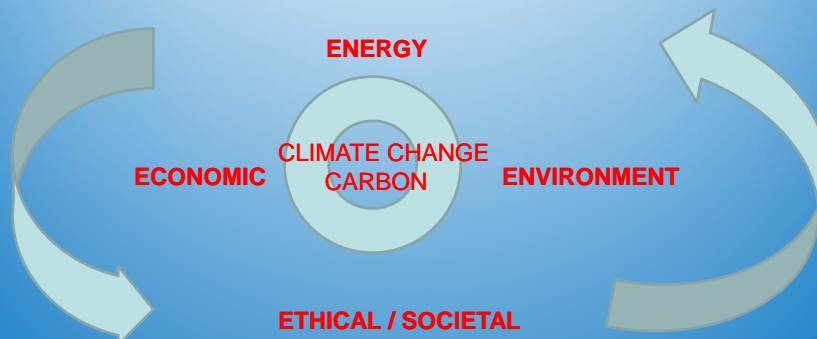
At

**The International Institute for Global Environmental Strategies,
IGES, Hayama, Japan**

26 to 27 June 2009

**ACHIEVING SUSTAINABLE* ASIA AND THE
PACIFIC WILL SIGNIFICANTLY CONTRIBUTE TO
GLOBAL SUSTAINABILITY**

持続可能な世界にむけたアジア太平洋の重要性



ASIA AND THE PACIFIC

Some telling indicators of diversity, complexity, vulnerabilities, challenges & opportunities

アジア太平洋の課題とチャンス: 多様性、複雑性、脆弱性

- 4 billion population; over half of this population is under 20 years; and over one-third under 15.
- Four of the world's most populated countries, with two-thirds of the mega-cities, nearly all located at or very near to the coast.
- GDP US\$ 18 trillion (ppp)
- Second and third largest economies.
- Largest number of people in poverty.
- Most island states.
- Largest and highest watershed – the Himalayas
- Most glacier lakes
- Most rain forests, coral reefs, mangroves.
- Fast embracing technological revolution
- Millennium of civilization and culture

INCREASING RESOURCE / ENERGY EFFICIENCY & PRODUCTIVITY

資源・エネルギー効率と生産性の向上



- BY 2020 TEN FOLD RISE OF ECONOMIC OUTPUT FOR EVERY TONNE OF GHG EMITTED
- EVERY TONNE OF CO2 EMITTED, CURRENT CARBON PRODUCTIVITY OF US\$740.GDP NEED TO PRODUCE US\$7,300.
- 1830 TO 1955 US PRODUCTIVITY INCREASED TEN FOLD..CARBON REVOLUTION NEEDS TO BE ACHIEVED IN ONLY 42 YEARS.
- “MANAGABLE” AT ABOUT 0.6 to 1.4 % GLOBAL GDP BY 2030

McKinsey Global Inst Report .June 2008

Similar costs estimate in Stern's Review.

THE ST. JAMES'S PALACE MEMORANDUM

Nobel Laureate Symposium, Royal Society London.

26 -28 May 2009

セントジェームズ宮殿の覚書 「持続可能で公平な未来のための行動」

“The St James's Palace memorandum calls for a global deal on climate change that matches the scale and urgency of the human, ecological and economic crises facing the world today. It urges governments at all levels, as well as the scientific community, to join with business and civil society to seize hold of this historic opportunity to transform our carbon-intensive economies in sustainable and equitable systems. We must recognize this fierce urgency of now.”

**THE FIERCE URGENCY OF NOW
MILESTONES OF THE GREAT TRANSFORMATION**

変化のために今なすべきこと

- **DELIVERING AN EFFECTIVE AND JUST GLOBAL AGREEMENT ON CLIMATE CHANGE**
- **DELIVERING A LOW CARBON INFRASTRUCTURE**
- **DELIVERING TROPICAL FOREST PROTECTION, CONSERVATION AND RESTORATION.**

“WE KNOW WHAT NEEDS TO BE DONE. WE CANNOT WAIT UNTIL IT IS TOO LATE. WE CANNOT WAIT UNTIL WHAT WE VALUE MOST IS LOST”.

**TRANSFORMING SYSTEM EFFICIENCY AND PRODUCTIVITY
(NOT TINKERING WITH SECTORS)**
システム効率と生産性の変革(修繕ではなく)

ECOSYSTEM

- Atmosphere, Hydrosphere, Geosphere, Biosphere,

**TRANSPORTATION &
INFRASTRUCTURE SYSTEM**

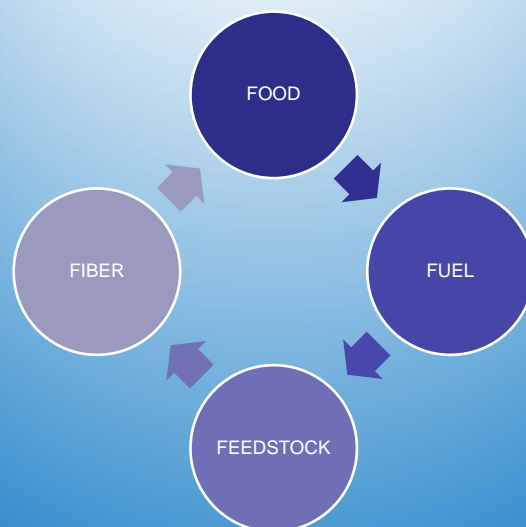
- Roads, Electricity grids, water supply

BUILT ENVIRONMENT SYSTEM

- Homes, Workplace, Knowledge & Learning centers,
Recreational & Wellness parks and spas

ECOSYSTEM

Atmosphere, Hydrosphere, Geosphere, Biosphere
エコシステム(大気、水、地表、生態系)



TRANSPORTATION & INFRASTRUCTURE

交通とインフラ

- **INCREASING VEHICLE FUEL EFFICIENCY**
- **BOOSTING PRODUCTION & AVAILABILITY OF LOW CARBON ALTERNATIVE FUELS**
- **INVESTING IN LOW CARBON TRANSPORTATION INFRASTRUCTURE**

John Podesta, Todd Stern, Kit Batten "Capturing the Energy Opportunity: "Creating a Low-carbon Economy" Center for American Progress Economic Plan for the Next Administration 27 Nov 2007.

CARBON REVOLUTION

炭素革命

- **BY 2050 TEN FOLD INCREASE IN ECONOMIC OUTPUT FOR EVERY TONNE OF GREENHOUSE GASES EMITTED**
- **EVERY TONNE OF CO₂ EMITTED, GDP NEED TO INCREASE FROM CURRENT US\$740 TO US\$7,300**
- **US LABOUR PRODUCTIVITY INCREASED TENFOLD BETWEEN 1830 AND 1955.**
- **INCREASING CARBON PRODUCTIVITY TEN FOLD IN LESS THAN 50 YRS WILL BE ONE OF MANKIND'S GREATEST CHALLENGE.**
- **HISTORY AND ECONOMICS GIVE CONFIDENCE CAN BE DONE**
- **COSTS "MANAGABLE" AT ABOUT 0.6 TO 1.4 % OF GLOBAL GDP BY 2030.**

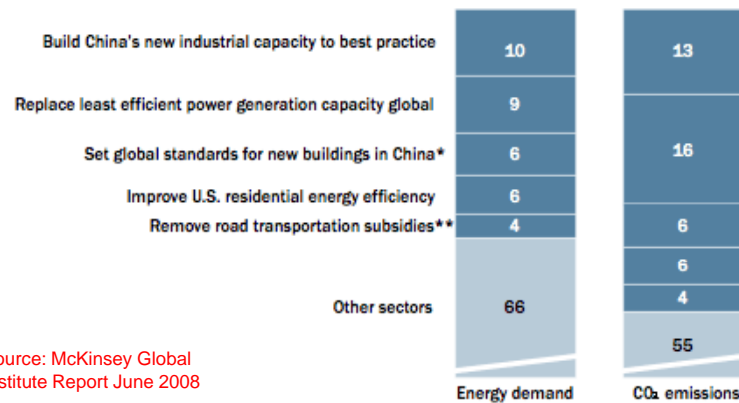
- *McKinsey Global Institute Report June 2008*
- *Cost estimates comparable with Stern's Review*

THE TOP FIVE PRIORITIES REPRESENT A LARGE SHARE OF THE OPPORTUNITY TO CURB GLOBAL ENERGY DEMAND AND CO₂ EMISSIONS

Breakdown of the global energy productivity opportunity
%, QBTU, billion metric tons

世界のエネルギー需要・CO₂排出を減らす5大チャンス

100% = 135 QBTU = 8 billion tons



Source: McKinsey Global Institute Report June 2008

*Residential and commercial building sectors.

**Assuming the removal of 80 percent of fuel subsidies globally (largely in the Middle East, Venezuela, and Mexico).

Source: MGI analysis



Common understandings:

an opportunity rather than a crisis only—systematically innovation/revolution

共通の理解：たんなる危機ではなく革新／革命の機会として

GREEN is the new global **BIG** deal
GREEN ECONOMY INITIATIVE

- Franklin D. Roosevelt 'New Deal' after the Great Depression of the 1930s
- A Global Green Deal after the 2008 Financial turmoil



Resource and Environmental Aspects

資源と環境

Social consensus-building	Conservation culture/eco-civilization
Long-term goal	Resource-saving and environmental-friendly society
pathways	<ul style="list-style-type: none"> ●Sound and fast development—<i>resource-saving and environmental protection become preconditions to determine the growth rate of GDP</i> ●Three shifts in relationship between environment and economy ●Help each other, cooperatively promotion, and jointly protection
Actions	<ul style="list-style-type: none"> ●Energy-saving and pollution abatement with two legal-bounding targets ●Circular economy ●National program for climate change ●Economic policies ●SEPA to MEP ●Local carbon economy.....



Rebounding Programs of Nine Industrial Sectors

産業セクターの回復プログラム

Green Targets, tasks and measures	Restructuring	Technology upgrading	Energy-saving and pollution abatement	phasing out outdated capacity of production
Automobile	√	√	√	√
Steel and Iron	√	√	√	√
Electronic and IT		√		
Transportation and storage				
Textile	√	√	√	√
Manufacture	√	√	√	√
Colored metal	√	√	√	√
Light industry	√	√	√	√
Chemical	√	√	√	√



SOME EMERGING CONCEPTS AND THINKING TOWARDS PARADIGM CHANGE

パラダイムチェンジを目指す新思考

- THE EXPANDING CONTEXT OF SUSTAINABILITY
 - 3 Rs  4 Rs (RETHINK)
 - CIRCULAR ECONOMY
 - LOW CARBON ECONOMY
 - LOW CARBON SOCIETY
 - NEW GREEN DEAL
 - ZERO EMISSION
 - ECOLOGICAL SOCIETY
- 
- **REVOLUTION, TRANSFORMATION, INNOVATION**

ASIA AND THE PACIFIC

アジア太平洋

- ✓ LOW - CARBON SOCIETY 低炭素社会
- 
- ✓ SUSTAINED SOCIETY 持続可能な社会
- 
- ✓ SECURED SOCIETY 安全な社会

THE THIRD REVOLUTION

第3革命

INDUSTRIAL REVOLUTION
("Black")



CARBON REVOLUTION
("Green")



BIO – REVOLUTION
("Harmony")

- ✓ Bio-energy.
- ✓ Bio- mimetics

