International Forum for Sustainable Asia and the Pacific (ISAP) 2012

Parallel Session: East Asia Knowledge Platform for Low Carbon Growth
- Knowledge in Action for Policy and Investment

ナレッジを活用した低炭素インフラ投資

- 地球規模の低炭素成長に向けたJICAの協力 -

Knowledge-based Investment in Low Carbon Infrastructure

- JICA Support for Global Low Carbon Growth -



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Messages/メッセージ

The Challenge for Low Carbon Growth

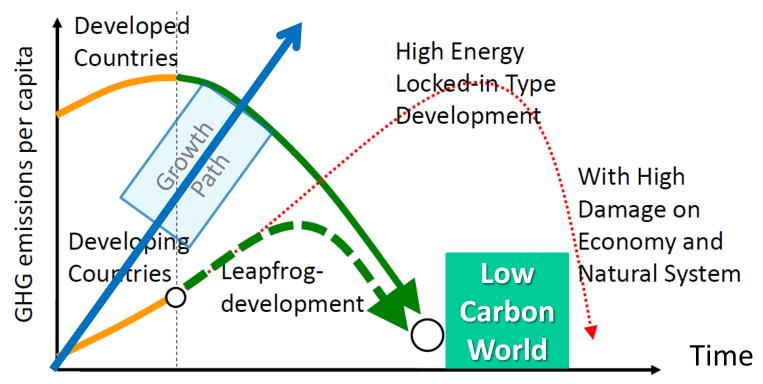
Concrete Steps to Materialize Knowledge-based Investment

- 1. Creating Knowledge Hub
- 2. Localizing Knowledge
- 3. Formulating Knowledge-based Policy
- 4. Linking Policy with Investment
- 5. Investing in Tangible Infrastructure & Assets
- 6. Engaging the Private Sector

Direction of Low Carbon Cooperation by JICA

The Challenge /課題

(what is the challenge for low carbon growth in Asia and the world?)



(Source) based on Prof. Nishioka (2010) Outcome from Asia LCS Studies and Perspective: Leapfrog Asia

- Policy-makers are likely to view this graph "three-dimensionally"
 "the third axis" representing "growth".
- The challenge is 1) finding solutions to "leapfrog" under appropriate growth path and 2) incorporating knowledge on such solutions into policy and investment decisions.

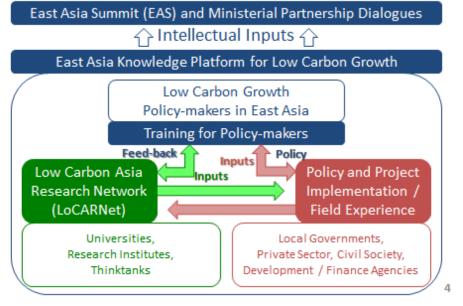
1. Creating Regional Low Carbon Knowledge Hub

低炭素ナレッジに関する地域ハブの創出

(active learning & pooling of research findings and past experiences)



East Asia Knowledge Platform for Low Carbon Growth (concept)



East Asia

- One-day Ministerial Dialogue on low carbon growth in East Asia in April 2012 in Tokyo / JICA, NIES and IGES introduced the concept "East Asia Knowledge Platform for Low Carbon Growth"
- Dialogue held in the context of the East Asia Summit (EAS)
- Shaping international framework (reducing uncertainty, e.g. REDD+)
- Coping with rapid urbanization and motorization
- Appropriate utilization of market mechanism

http://www.iges.or.jp/en/cp/activity20120414.html

2. Localizing Low Carbon Knowledge

各地のニーズにあった低炭素ナレッジの活用

(promoting partnership for tailor-made solutions at municipality level)

Indonesia / Surabaya – Japan / Kitakyushu

- ➤ Joint statement by Kitakyushu and Surabaya on *strategic environmental* partnership (March 2011)
- City of Kitakyushu, utilizing JICA studies and other tools, introduced local technologies to Surabaya for green, low carbon growth (water and waste management, etc.).

Thailand / Bangkok - Japan / Yokohama

- ➤ Both cities announced ambitious GHG emission reduction targets.
- Yokohama has provided support to Bangkok officials in formulating low carbon policy using JICA cooperation framework (mass transit, renewable and efficient energy, waste, expanding park areas)

City of Kitakyushu, Japan

Established "Kitakyushu Asian Center for Low Carbon Societies" to transfer environmental technology to Asian countries for a "Asian lowcarbon revolution"

City of Yokohama, Japan

Launched "Yokohama Smart City Project" to design and build "Next Generation Energy Infrastructure and Social System" to maximize GHG emission reduction

3. Formulating Knowledge-based Policy

ナレッジを活用した政策の策定

(incorporating localized wisdom into decision making

- case of Vietnam energy efficiency policy actions)

Example of Policy Action Cycle (Energy Efficiency) from Climate Change Development Policy Loan to Vietnam

- •Save 5-8% of the nationwide energy consumed 2011-2015
- 2009 Action
- Prepare the legislative framework

- 2010 Action
- Prepare the regulations to enforce the Law
- 2011 Action
- Research of financial mechanism

Introduction of Registered Energy Manager system

Introduction of Energy Labeling system Strengthening data management

Knowledge on Effective Measures for Energy Efficiency (Experience in Japan) Survey of local situation

On-site review of factories

Awareness raising of local actors

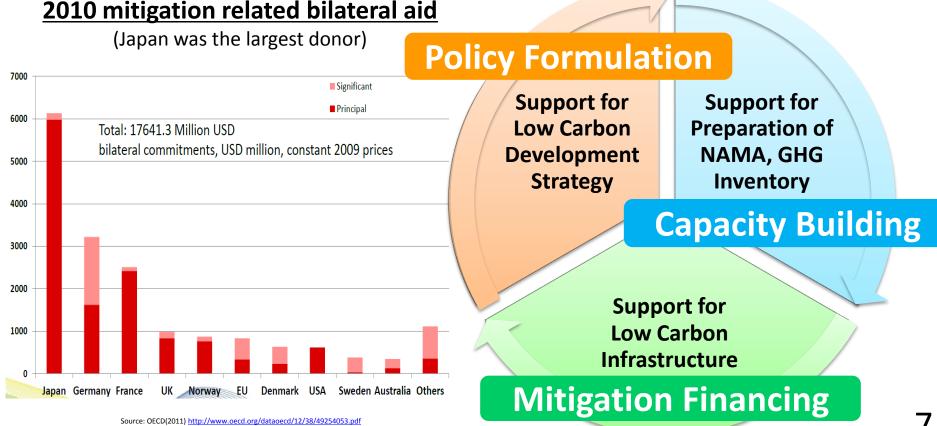
Training local experts in Japan

Localization of Effective Measures in the Vietnamese Context

4. Linking Low Carbon Policy with Investment

低炭素政策を投資に結びつけるJICAの包括的な支援 (comprehensive support framework by JICA)

> JICA handles most of Japan's bilateral climate related aid, offering comprehensive support using its technical & financial support in alignment with international framework (LEDS, NAMA, MRV, etc.)



5. Investing in Tangible Low Carbon Assets

低炭素型インフラへの投資:インドの事例

(broad lineup of JICA support for infrastructure - case of India)

Urban Transport

Prime Minister
Dr. Manmohan Singh:
"Delhi Metro is a shining example of Japan-India partnership"





Energy Efficiency

Increasing energy access and efficiency by helping India construct a pro-poor power network

- JICA metro projects already in 4 cities (Delhi, Bangalore, Kolkatta, Chennai)
- ✓ Knowledge sharing by Tokyo Metro
 on operational safety
- ✓ Wide range of renewable technology eligible for financing thru IREDA
- ✓ Technical cooperation to <u>transfer</u> <u>solar power technology</u> to IREDA

Medium to long term finance provided through IREDA (Indian Renewable Energy Development Agency Limited.)

Renewable Energy



Recent ODA loan projects include:

- Rural electrification in southern and western India (accessing 3 million)

 Upgrading transmission and distribution system (urban and rural)
- "Energy Saving Equipment List"
 Locally available energy saving
 equipment
- Enhancing capacity of intermediary bank and <u>raising awareness</u> of SMEs



Supporting SMEs using
Sustainable Finance thru
SIDBI (Small Industries
Development Bank of India)

Sustainable Finance

6. Engaging the Private Sector

民間セクターの参加を促進

(bridging the gap between business and sustainable development - case of Indonesia geothermal energy)



- > JICA discusses with the Government of Indonesia on private sector engagement policy in geothermal
- Regulatory environment is improved



- Private sector finance is crucial to develop geothermal, a low-carbon solution to Indonesia's power supply
- ➤ JICA listens to the private sector to identify barriers for participation



- > Technical Cooperation for preparation of master-plans
- Concessional Loans for construction of high priority geothermal power plants
- Public funds not enough to develop the estimated 27,000
 MW potential in Indonesia's geothermal power

Direction of Low Carbon Cooperation by JICA

低炭素分野におけるJICAの協力の方向性

(June 2012 http://www.jica.go.jp/english/operations/climate_change/overview.html **Comprehensive** Climate Change, Climate Compatible A Global Agenda **Assistance** Sustainable Development <Mitigation: Low-carbon Society> Energy, Transport, Forestry, Waste Management, etc. Strategic Mitigation Actions Technical Cooperation Low-carbon Technologies Financial Assistance Efficient Use of Resources, etc. Reduction of **Equitable** GHG Growth **Emission** Responding Policy & Institutional Reform, **Sustainable** to Climate **Development** Finance Mechanism, Change **Human Resource Development Enhancing** Human Adaptive Climate Modeling / Security Capacity **Vulnerability Assessment** Policy Dialogue Enhancing Adaptive Capacity Public-Private > Resilient Infrastructure Disaster Risk Management, Partnership

Research / Studies

Water, Agriculture.

Sanitation, etc.