Mid-term Emission Reduction Potential in Developing Country and Japanese Cooperation

JICA's support for the realization of low carbon growth in East Asia



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Flow of Presentation

2. Strategic Cooperation by JICA

- > Comprehensive, multi-layered approach (Vietnam)
- > Broad lineup of low carbon infrastructure investment (India)
- > Public-private partnership for geothermal energy (Indonesia)
- > Urgent support for adaptation NAMA support (Bangladesh)
- > Scientific and technology support for rural resilience (Ghana)
- > Regional knowledge network (East Asia, Africa)
- > Global partnership (Bilateral Financial Institutions)



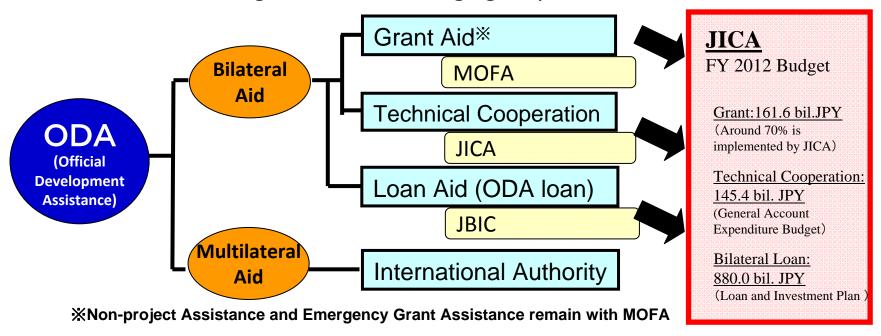
1. Background

- > about JICA
- > various schemes
- > mainstreaming climate change
- > 2010 climate-related aid statistics



(about JICA)

- The current JICA was inaugurated in October 2008 with a merger of
 - 1) Technical Cooperation of the existing JICA,
 - 2) Loan Aid operation (ODA loans and Private Sector Investment Finance (PSIF) of the former Japan Bank for International Cooperation (JBIC), and
 - 3) a large portion of Grant Aid implementing operation of the Ministry of Foreign Affairs (MOFA).
- JICA provides strategic and effective ODA through integrated, comprehensive and seamless implementation of Technical Cooperation, Loan Aid and Grant Aid as one of the largest ODA executing agency in the world.





(various schemes of JICA assistance)

- > Technical Cooperation: includes ...
 - (1) acceptance of training participants
 - (2) dispatch of experts
 - (3) provision of equipment
 - (4) assistance for development planning and public projects
- Loan Aid: includes ...
 - (1) project loans
 - (2) program loans (sector support / general budget support)
 - (3) financial intermediary loans ("two-step" loans)
 - (4) engineering services (E/S) loans
- Grant Aid: includes ...
 - (1) grant aid for general projects
 - (2) program grant aid for environment and climate change
- > Research (JICA Research Institute), volunteers



(Japan's Bilateral Climate-related Aid in 2010)

Japan is the largest donor in the climate change field among OECD DAC donors.

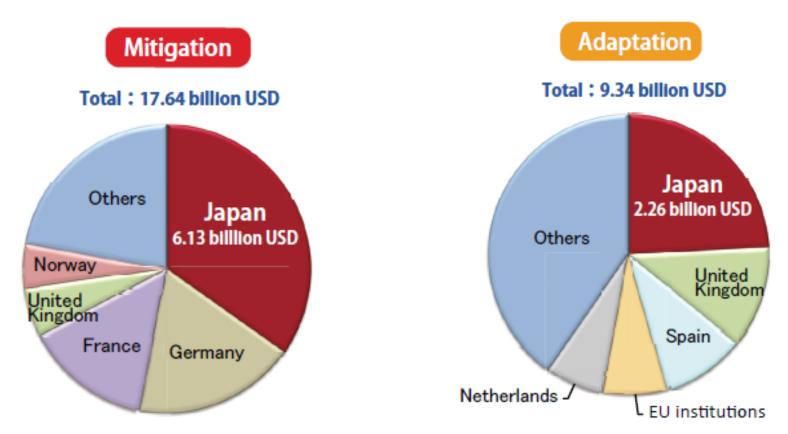
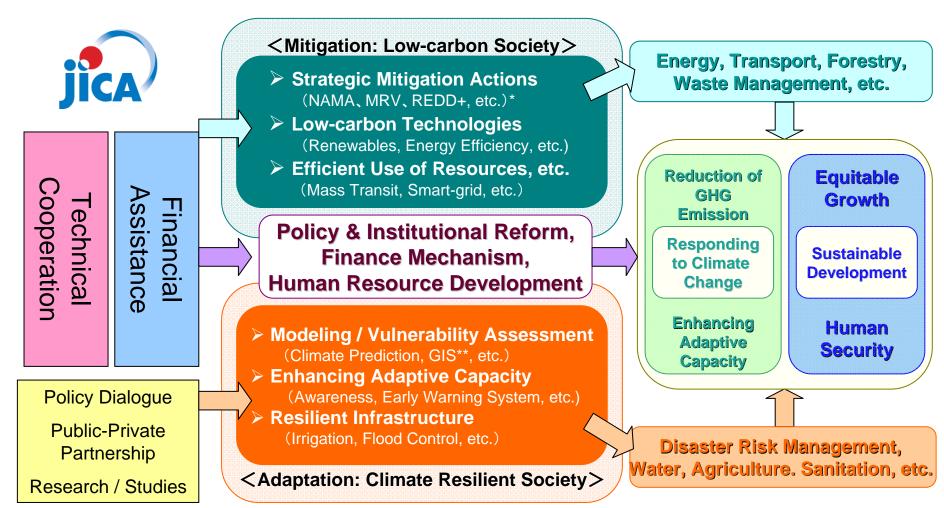


Figure: Bilateral climate change-related aid in 2010 (Source: OECD DAC Statistics 2011)



(mainstreaming for climate compatible development)

Direction of Low Carbon and Resilient Development Cooperation by JICA (June 2012)

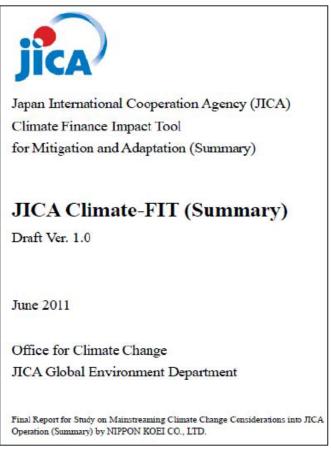




(screening tool and process for mainstreaming)

➤ JICA assisted activities are monitored and evaluated under the PDCA cycle to manage results, enhance transparency and accountability. JICA Climate Finance Impact Tool (Climate-FIT) is used for mitigation and adaptation projects.







(comprehensive, multi-layered approach in Vietnam #1)

Towards a Low-carbon and Climate-resilient Society

National Development Strategy, Budget Allocation & Finance Plans and Policy Coordination

Mitigation Actions

- ➤ NAMA* and MRV of Mitigation Effects
- > Energy, Forestry, Transportation, etc.

Adaptation Actions

- ➤ Climate prediction & vulnerability assessment
- > Disaster prevention, agriculture, fisheries, etc.

Physical Infrastructure Development

Policy & Institutional Improvement

<u>Capacity</u> Building

- Renewable energy
- Energy efficiency
- Urban transport
- Flood management, etc.
- Community disaster management program
- Energy efficiency labeling system, etc

- Climate change projection model analysis
- Formulation of NAMA in a MRV manner, etc.



(comprehensive, multi-layered approach in Vietnam #2)

Example of adaptation and disaster risk management



Climate Change Development Policy Soft Loan

Dialogue on climate policy and institutional improvement (Nat'l Program for Community Disaster Risk Management, etc.)



Landslide Risk Assessment of Roads

Science & Technology Research Partnership (SATREPS) technical cooperation for resilient transport infrastructure



Technical Cooperation in Central Vietnam

Project for Building Resilient Societies in flood-stricken Central Region (provincial action plans, manuals for community, etc.)



Earth Observation Satellites (Soft Loan)

Upgrading disaster and climate change planning by financing purchase of satellite equipment & support facilities plus training



(broad lineup of JICA low carbon infrastructure investment in India)

Urban Transport

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



- ✓ 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.)







Energy Efficiency

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

Recent ODA loan projects include:

- ✓ <u>Rural electrification</u> in southern and western India (accessing 3 million)
- ✓ <u>Upgrading transmission and distribution</u> <u>system (urban and rural)</u>
- ✓ <u>"Energy Saving Equipment List"</u>
 Locally available energy saving equipment
- ✓ Enhancing capacity of intermediary bank and raising awareness of SMEs



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

Sustainable Finance



(public-private partnership for geothermal development in Indonesia)



- ➤ JICA conducts policy dialogue based on CC DPO with the Government of Indonesia on private sector engagement policy in geothermal regulatory environment is improved
- > JICA continues to support investment for geothermal power development using its Concessional Loans



- 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

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(urgent support for adaptation - NAPA implementation in Bangladesh)

Khulna Water Supply Project

Loan Agreement Signed: May 18, 2011 Loan Amount: 15,729 Mil. JPY (approx. 200 Mil USD)

Only about 22% of residents in Khulna, the third largest city in Bangladesh, have access to piped water supply service. Many unconnected households rely on shared public taps and spend on average 90 minutes to fetch water everyday.



The objective of the project is expansion of reliable access to safe water. The project also functions as climate change adaptation thru salinity control facilities.

Khulna is located on the coastal belt of Bangladesh, and rivers running near the city are affected by salinity intrusion from Bengal Bay especially during dry season, and thus it is not easy to secure potable fresh water.





(utilizing scientific knowledge for adaptation in Ghana)

Enhancing Resilience to Climate and Ecosystem Changes in Semi-arid Africa: an Integrated Approach (2011 - 2016)

Science and Technology Research Partnership for Sustainable Development (SATREPS)

Japanese Researchers

- ➤ University of Tokyo
- ➤ Kyoto University
- ➤ United Nations University

Joint Counterpart Researcher Institutions

Research>University of Ghana

➤ University for Development Studies, Ghana

➢Ghana Meteorological Agency

- > This research focuses on flood and drought-prone, semi-arid northern Ghana.
- ➤ The objective is to propose effective and implementable measures to build an integrated resilience enhancement strategy ("Ghana model") potentially applicable across the African Savannah.
- (1) forecasting and assessment of climate, ecosystem change impact on agricultural production;(2) risk assessment of extreme weather events and introduction of adaptive water resource management methods; and
- (3) planning and implementation of capacity development programs enabling local residents and professionals to utilize the assessment results of (1) and (2).



(creating regional knowledge network - East Asia)



East Asia Knowledge Platform for Low Carbon Growth (concept)

East Asia Summit (EAS) and Ministerial Partnership Dialogues ♠ Intellectual Inputs ♠ East Asia Knowledge Platform for Low Carbon Growth Low Carbon Growth Policy-makers in East Asia Training for Policy-makers Feed-back Low Carbon Asia Policy and Project Inputs Research Network Implementation / (LoCARNet) Field Experience Universities, Local Governments. Private Sector, Civil Society, Research Institutes, Thinktanks Development / Finance Agencies

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



(creating regional knowledge network - Africa)

Africa

- Two-day Policy Dialogue on addressing climate change in Africa held in fall 2011 in Tokyo
- ➤ Dialogue held in the context of the *Tokyo International Conference on African Development (TICAD)*
- Capacity development for data collection & analysis of vulnerability
- Vision for resilient development (climate-smart agriculture, efficient use of water, etc.)
- Access to finance and investment



Tokyo International Conference on African Development (TICAD)

TICAD is a policy forum for African development which the Government of Japan initiated in 1993 with other coorganizers including UN, UNDP and the World Bank.

2008 TICADIV adopted Yokohama Action Plan (YAP)

2013 TICAD V



(global partnership to innovate available instruments)

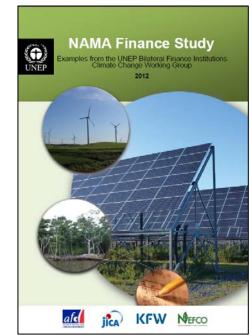
UNEP BFIs Climate Change Working Group (UNEP BFIs CCWG)

- Originated in January 2009. AFD (France), KFW (Germany), NEFCO (Nordic) and JICA (Japan) are the current members. UNEP is the facilitator.

- In 2010, the current UNEP BFI members provided around 14 billion USD in climate finance to developing countries — roughly equivalent to the amount from multilateral banks / agencies (Buchner et al. 2011).

> Study on NAMAs Finance

- As major contributors, BFIs CCWG published reports on climate finance mapping and specific themes (last year's theme: "innovative climate finance").
- Given its significance to global mitigation, "NAMAs Finance" was chosen as this year's theme. A draft report was prepared for International Workshop on NAMA Finance, led by JICA with inputs from other BFIs.
- The report is based on technical analyses and is not intended to deliver political messages, such as the negotiation positions of relevant countries



Prepared with Japan Weather Association





Thank you very much!