



Co-Benefit Approach in JICA

The 18th Asia-Pacific Seminar on Climate Change Ha Noi, 3th March 2009

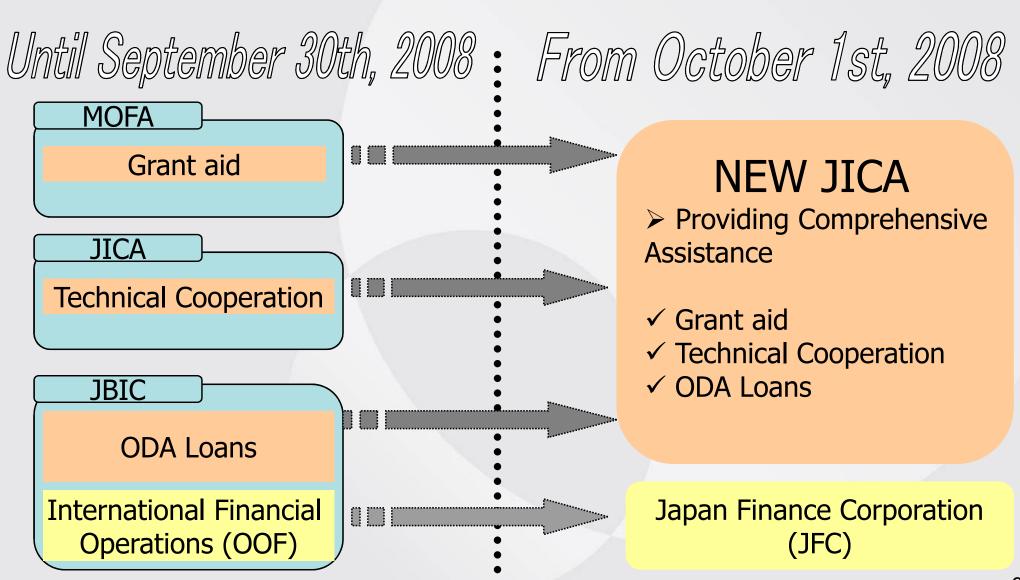
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- 1. Introduction of Japan's ODA
 New JICA-Synergy from Integration of Three Aid Schemes-
- 2. Approach of Japan's ODA to Climate Change Measures
- 3. Current JICA's Operation and Case Projects
- 4. New JICA's Next Steps for Achieving Low Carbon & Climate Proofing Society



1. Introduction of Japan's ODA

New JICA -Synergy from Integration of Three Aid Schemes-



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2. Approach of Japan's ODA to Climate Change Measures (Ref) Development Agenda and Climate Change

To provide cooperation for SD and reduce poverty in a compatible way, JICA will cooperate economic development in various areas and climate change issues. **Climate Change** Reduce GHG Use of fossil fuels Secure **Toward Low**

=Increasing GHG Emission Developmental benefit Adaptation

Economic Development

Forest Conservation

Energy

Urban Development

Rural Development

Carbon

Society

Biodiversity

Transport

Education

Agriculture

Water Resource Management

Industrialization

Waste Management

Health & Sanitation

Poverty

Environmental SD

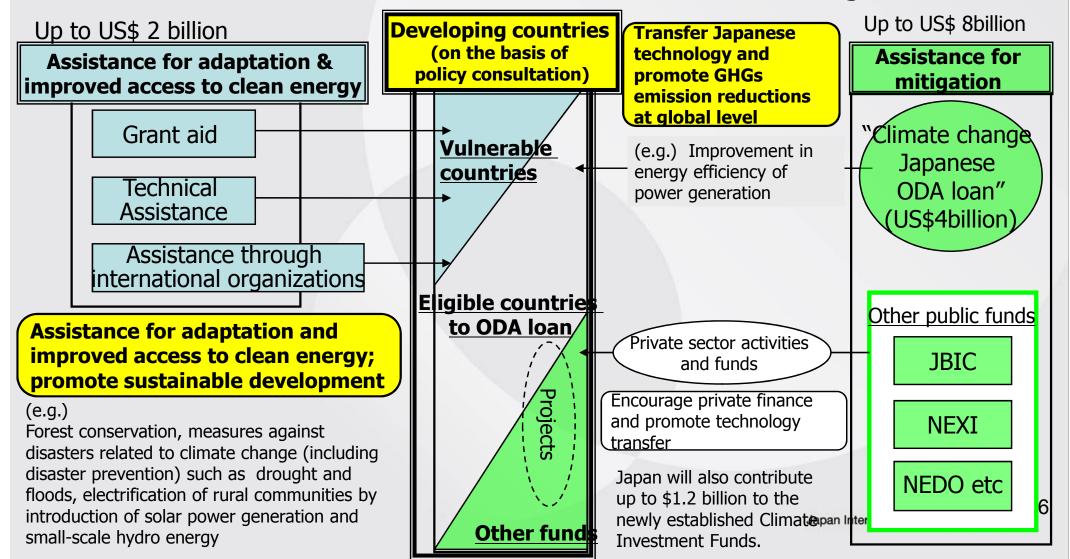
Economic SD

Social SD



2. Approach of Japan's ODA to Climate Change Measures Financial Mechanism "Cool Earth Partnership" (Image)

From 2008, Japan provides funds amounting to 10 billion USD in aggregate over the next five years to provide cooperation for developing countries make efforts to reduce GHG emissions and achieve economic growth.





2. Approach of Japan's ODA to Climate Change Measures "Cool Earth Partnership" (1/2)

Japan will provide cooperation for Mitigation of Climate Change in up to 8 billion USD.

Mitigation of Climate Change

"Climate change Japanese ODA loan" with preferential interest has been created to provide loans amounting to 4 billion USD for the purpose of implementing projects to address global warming in developing countries.



2. Approach of Japan's ODA to Climate Change Measures "Cool Earth Partnership" (2/2)

Japan will provide cooperation for Adaptation to Climate Change and Improved Access to Clean Energy in up to 2 billion USD.

Adaptation to Climate Change

Grant aid, Technical Assistance, and aid through international organization will be provided to address the needs in developing countries. A new scheme of grant aid, "Program Grant Aid for Environment and Climate Change", has been created as a component of this package.

Improved Access to Clean Energy

Feasibility study on rural electrification projects with clean energy and "co-benefit" projects that address climate change will be conducted.

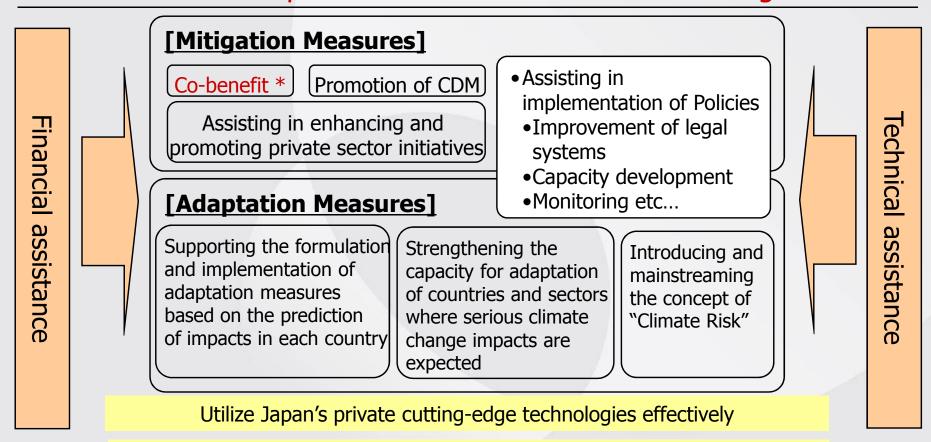
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3. Current JICA's Operation and Case Projects Direction of New JICA's Operation: Climate Change

JICA will enhance the approach of economic development and reduction of GHG emissions in compatible way.

NEW-JICA's policies and concrete measures (Image)



Promote globally conducive research

Japan International Cooperation Agency



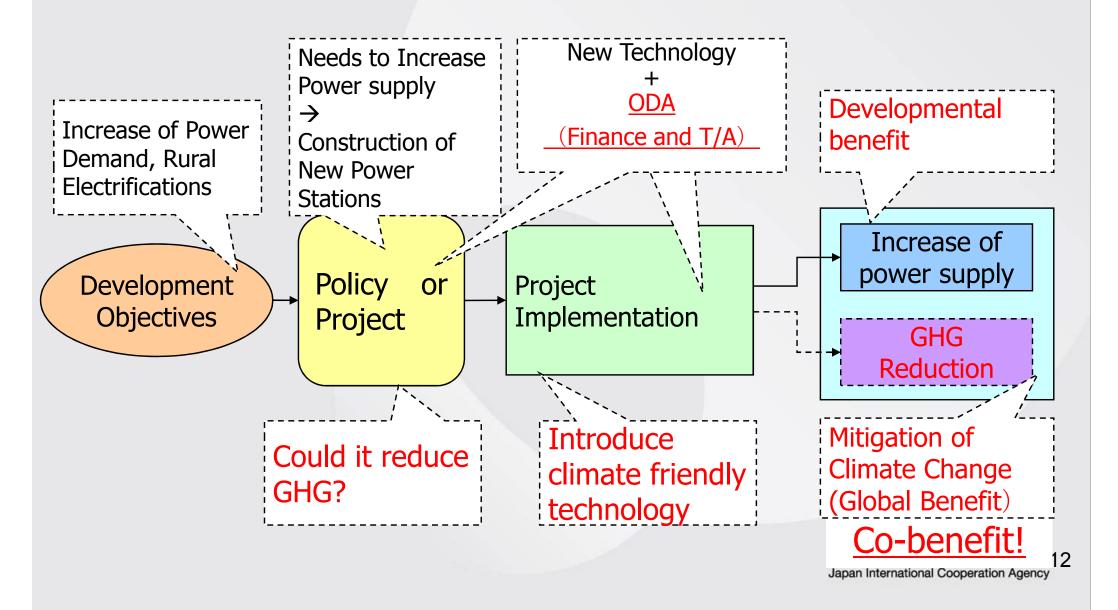
3. Current JICA's Operation and Case Projects Introduction of Case Projects **Introduction of Case Projects**

Mitigation Measures (Include Co-Benefit)	Case:1	Loan Project: Wind Power Plant in Egypt	
	Case:2	Technical Cooperation Project: Implementation Support for 3R Initiative in Hanoi city	
	Case:3	Program Grant Aid for Environment: Waste Disposal Management in Dhaka	
	Case:4	Development Study: Potential eligible land distribution in Vietnam	
Adaptation Measures	Case:5	Disaster Management in Bangladesh	
	Case:6	JICA-WB-ADB Joint Study: Climate Change Impact and Adaptation in Asian Coastal Cities	
Policy Based	Case:7	Policy Based Assistance for Climate Change	



3. Current JICA's Operation and Case Projects To generate "Co-Benefit"

This is an example of Co-Benefit, a case of Power Sector.





1) Loan Project: Wind Power Plant in Egypt

This is an example of a Renewable Energy, Wind Power Plant in Egypt and the first project registered as CDM in Japanese ODA loan projects.

Brief Overview

Loan Agreement Signed in Dec 2003 (13,497 mil. yen)

Implementing Agency

 New and Renewable Energy Authority (NREA)

Project Description Construction of wind power plant (120MW) in Zafarana on the coast of the Red Sea, 220 km southeast of the capital Cairo.

Effect of the Project

- Registered as CDM in June 2007
- Approx 250,000tCO₂/year will be reduced.



(Image photo)



2) Technical Cooperation Project: Implementation Support for 3R Initiative in Hanoi city (2006.11 - 2009.11)

JICA will do environmental training activities and pilot activities of source

separation and recycling systems to develop material-cycle society under the

3R initiative.

Brief Overview

Project Purpose

 To develop a sound material-cycle society under the 3R initiative through a wellbalanced 3R system based on source separation of organic waste and recycling

Main Project Activities

- Environmental training activities
- Pilot activities of source separation and recycling systems
- Formulation of action plan to extend the standardized program to central Hanoi city

Co-Benefit approach

- To reduce GHG emissions through promotion activities for the effective use of resources and waste reduction
- To reduce methane emissions from landfill site through making compost instead of dumping it in a landfill



Minimize waste amount through 3Rs!

Source Separation & Partnership!

4



3) Program Grant Aid for Environment: Waste Disposal Management in Dhaka

This is a program for improvement waste disposal management in Dhaka. JICA provided CNG truck and capacity building for implementing agency.

Components of the program

Po	ten	tial	Effe	ct
	•••			

Soft	Environmental education to officers & workers at solid waste management office (Drivers etc)	Training /Institutional
components	Vehicle O&M	Development
	Support for CNG introduction program/ training for safety	

Capacity Building for GHG reduction technology (O&M of CNG vehicles), Awareness raising





	Hard components	Low-carbon emission type waste collection truck	Container carriers, Arm-roll Trucks, Compactor collection vehicles
		Service garage	Improvement of service garage for vehicle maintenance
		Tools & Equipments	Provision of equipments for O&M of vehicles

TA for vehicle operation planning



Tools & Equipments for Service garage

CNG use -> CO2 reduction

Japan International Cooperation Agency



4) Development Study: potential eligible land distribution in Vietnam

JICA will contribute to institution-building and implementation for climate change measures in forest sector of Vietnam.

The Government of Vietnam

Utilize climate policy planning in forest sector
 Utilize demonstration activities implementation etc

Private Sector & Various Organization

- Utilize CO2 reduction project implementation
- Utilize tree planting activities in private sector

JICA's Development Study

Identification and Mapping of potential eligible land distribution scheme in forest sector

Carbon Storage Promotion Project in Forest Field

AR-CDM (TOR: 1)

REDD (TOR: 2)

Other (TOR: 3)

[Concrete Activities]

- Analyze satellite image
- Survey and Mapping of potential eligible land distribution
- Compilation of basic demographical and forest resource information
- Simplified estimation of climate change benefit and cost

Market share with potential Investors (TOR: 4)



5) Disaster Management in Bangladesh

This is an example of Adaptation and multi purpose Cyclone Shelter Project in Bangladesh.

- 80% of national land at an altitude of under 9 meters
- Excessive loss due to flood in rainy season and cyclone
- Construction of 91 <u>two-story multi purpose cyclone shelters</u>
 by 5 phase-long cooperation
- Combining cyclone observation system such as <u>Metrological Radar</u> <u>System</u>, cyclone shelters could work more effective to reduce damages from cyclones







6) JICA-WB-ADB Joint Study: Climate Change Impact and Adaptation in Asian Coastal Cities

JICA has studied the damage of some Mega cities in Asian countries influenced by climate change, especially flood.

Assessment on vulnerability to floods caused by climate change

Cities

JICA

: Manila

World Bank: Bangkok and Kolkata

ADB

: Ho Chi Minh City

and others

Prediction of floods applying climate models for 2050

Change in precipitation/ sea-level rise/storm surge



Empirical analysis on vulnerability of household/firm

: Estimation of costs of floods



Impact on urban infrastructure (transportation/energy/communi cation/sanitation etc.)



Adaptation and mitigation policies to climate change



7) Policy Based Assistance for Climate Change

Example of the Policy Matrix formulated based on the policy dialogue

Pillar 1: Mitigation

1.1: LULUCF
(Land Use, Land Use
Change and
Forestry)
-Reforestation

-Reforestation -REDD

-Forest management

1.2: Energy

-Power plant
-Industry, domestic
and commercial
-Others

Pillar 2: Adaptation

2.1: Water Resource Management

2.2: Water Supply and Sanitation

2.3: Agriculture

Pillar 3: Cross-cutting Issues

3.1:Understanding the Impact of Climate Change 3.2: Mainstreaming Climate Change in the National Development Program

3.3: CDM 3.4: Co-Benefit 3.5: Fiscal Incentive

3.6: Early Warning System

- > Formulate the policy actions (policy matrix) in order to improve the related policy to Climate Change based on the policy dialogues
- ➤ The case here we set 3 policy pillars such as (1) Emission Reduction of GHGs (Mitigation), (2) Adaptation to Climate Change, and (3) Cross-cutting issues.
- > The coming loan amount and policy reform agenda will be decided annually, while conducting continuous dialogue and monitoring concerning the implementation progress of the agreed policy matrix. 17

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New JICA's Next Step for Achieving Low Carbon & Climate Proofing Society

- (1)Promoting integrated cooperation addressing climate change measures in development cooperation
- (2)Aligning climate change and development based on the co-benefits approach
- (3)Realizing tangible development projects form the perspective of climate change mitigation and adaptation

Thank you very much!



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