



Scoping Workshop to enhance the Climate Adaptation Actions of
Asia-Pacific Network (APN) Developing Countries
Organized by the APN and the Institute of Global Change Adaptation Science
(ICAS) of Ibaraki University
in Hyogo, Japan, 20-22 August, 2012

Japan International Cooperation Agency (JICA) and Climate Risk Assessment

August 20th, 2012

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Japan International Cooperation Agency (JICA)

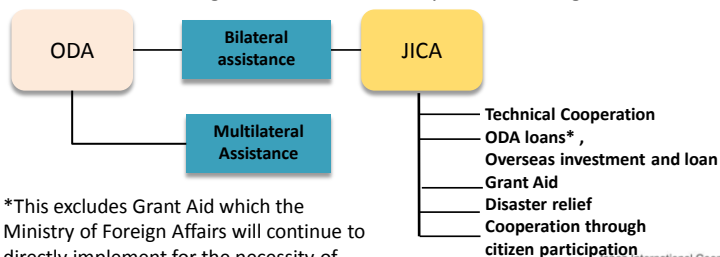
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Japan's Role for Climate Change and Development

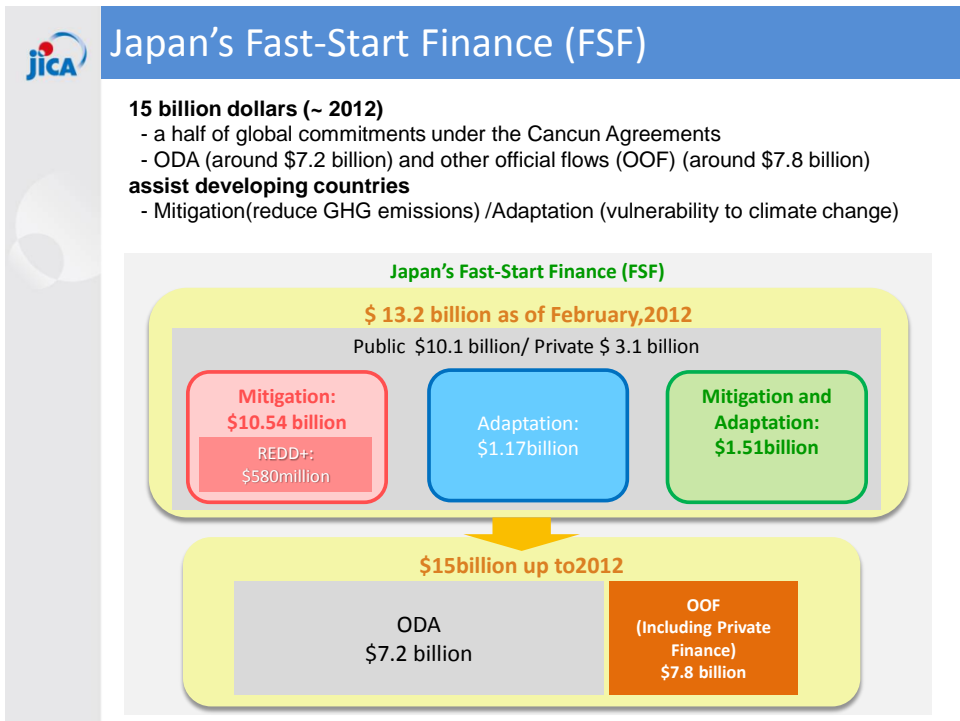
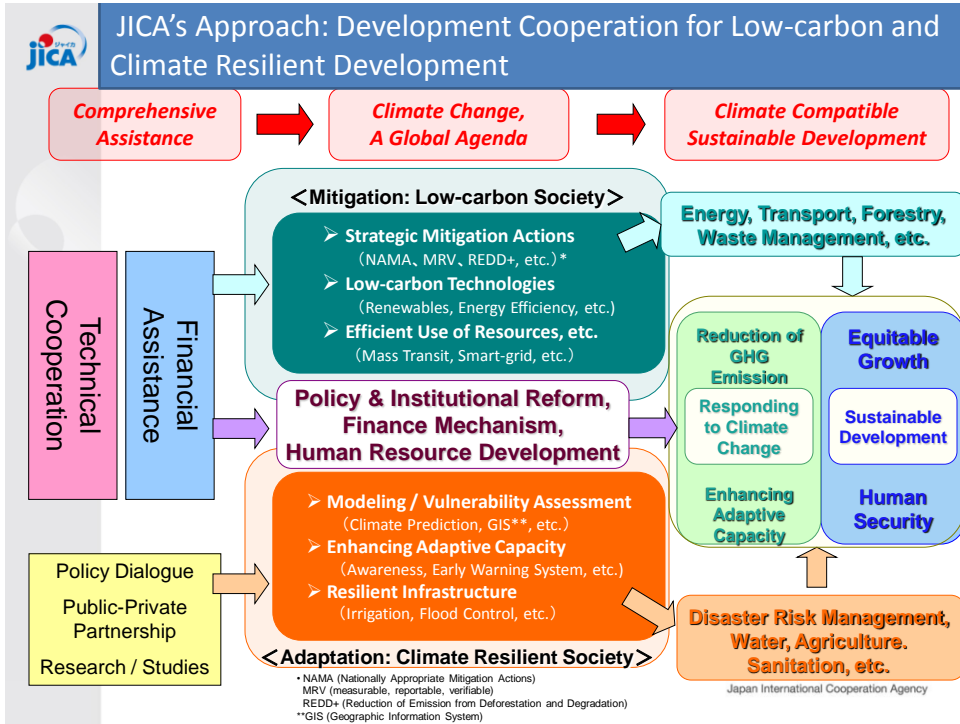
◆ JICA and Japan's ODA

- Since 1954, Japan has been providing financial and technical assistance to developing countries through **ODA (Official Development Assistance)**. **JICA (Japan International Cooperation Agency)** is in charge of administering all ODA except contributions to international organizations.
- JICA, taking advantage of accumulated experiences, the results of assisting of developing countries and Japan's technology, conducts **multi-benefit assistance**, which contributes to sustainable developments in developing countries and simultaneously contributes to resolve various development subjects. JICA assists by mixing organically financial and technical assistance for **mitigation measures**, which contribute to reduce greenhouse gas (GHG) emission and for **adaptation measures** to the negative effects caused by climate change in various sectors .



*This excludes Grant Aid which the Ministry of Foreign Affairs will continue to directly implement for the necessity of diplomatic policy.

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Japan's Fast-Start Finance (FSF) for Climate Change Adaptation

Finance for Climate Change Adaptation

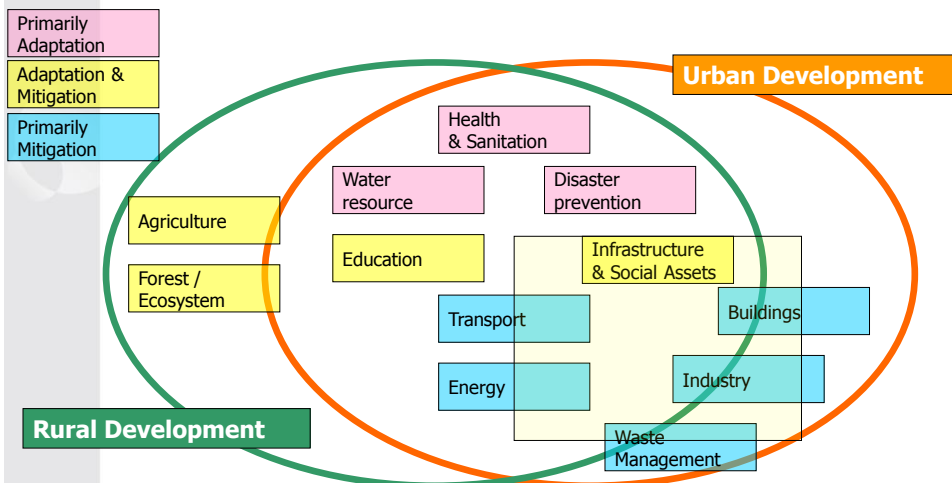
Major Sectors

- ◆ Protection against Disasters /Rehabilitation
- ◆ Water and Sanitary
- ◆ Farming and Irrigation
- ◆ Forestry
- ◆ Others

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Sustainable Development and Low-Carbon / Climate Resilient Actions in Developing Countries



Sectors in need of adaptation and with potential of mitigation are critical components of sustainable development

- climate actions in developing countries **must** be implemented in the context of sustainable development

国際協力機構



JICA Climate Finance Impact Tool "JICA Climate-FIT" for Mainstreaming Climate Change Measures

Japan International Cooperation Agency (JICA)
Climate Finance Impact Tool
for Mitigation and Adaptation (Summary)

JICA Climate-FIT (Summary)
Draft Ver. 1.0

June 2011

Office for Climate Change
JICA Global Environment Department

Final Report for Study on Mainstreaming Climate Change Considerations into JICA Operation (Summary) by NIPPON KOEI CO., LTD.

A reference document for assisting climate change related measures

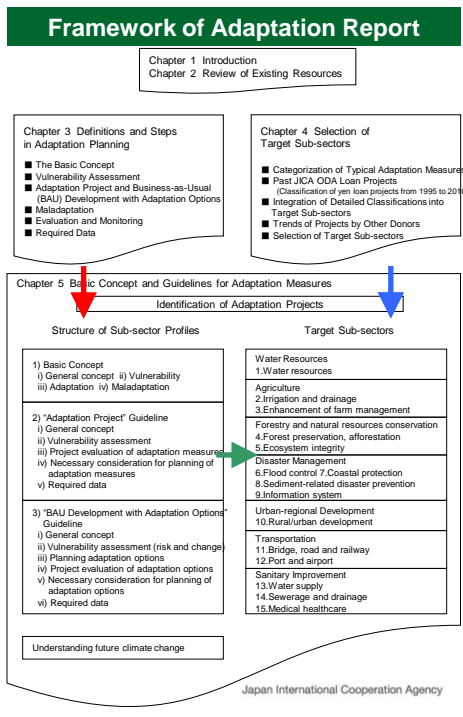
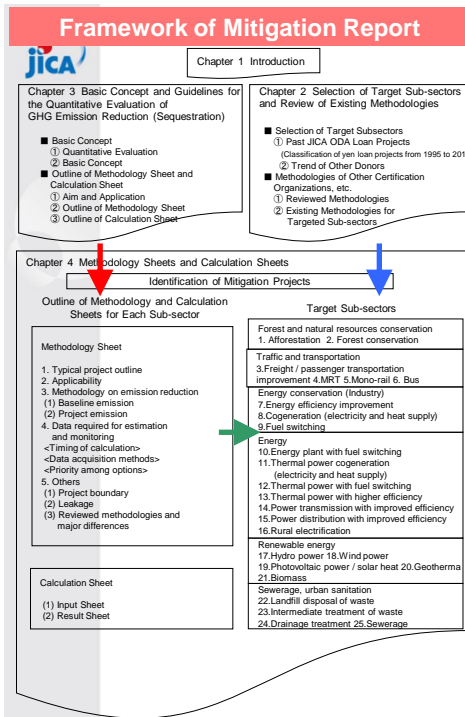
Mitigation:

- Methodologies for implementing measurement, reporting and verification (MRV)
- Simplified estimation of GHG reduction using excel sheets
- 25 sub-sectors: forestry, transport, energy, waste, etc.

Adaptation:

- Concepts and guidelines for mainstreaming adaptation considerations
- 15 sub-sectors: water resources, irrigation, forest preservation, infrastructure, etc.

http://www.jica.go.jp/english/operations/climate_change/index.html





Reference Paper 'Projected Impact of Climate Change' for Specific Countries/Areas



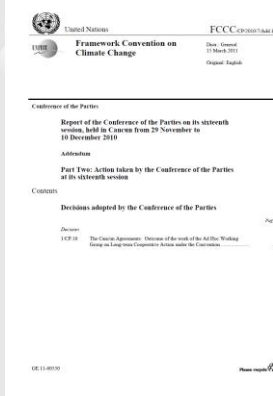
- Document Review of IPCC Assessment Reports, National Communications, etc.
- Projection of Trend of Temperature / Rainfall Change and Possible Impacts/ Affected Sectors are Summarized
- 14 Regions and 60 Countries (so far)

→Need to Prepare for Uncertainties

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National Adaptation Plans (NAPs)



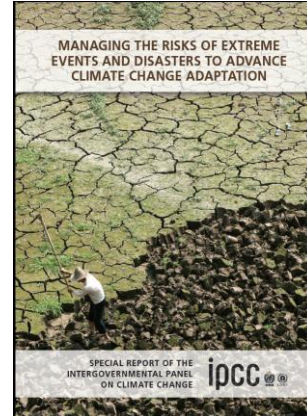
- NAP decision at COP17, Durban 'Planning for adaptation at the national level is a **continuous, progressive and iterative process**, the implementation of which should be based on nationally identified priorities, including those reflected in the relevant national documents, plans and strategies, and coordinated with national sustainable development objectives, plans, policies and programmes'

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SREX (IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation)

- ◆ Development practice, policy, and outcomes are critical to shaping disaster risk, which may be increased by shortcomings in development .
- ◆ Integration of local knowledge with additional scientific and technical knowledge can improve disaster risk reduction and climate change adaptation. Appropriate and timely risk communication is critical for effective adaptation and disaster risk management.



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Toward Resilient Development -In Practice

Reducing Vulnerabilities

- Measures to mitigate vulnerabilities: present-day environmental and social stresses

Close relationship with existent development programmes

- ◆ Water supply and management
- ◆ Agricultural diversification
- ◆ Livelihood diversification
- ◆ Other basic development needs such as MDGs



Enhancing Disaster Preparedness

- Need to adapt to multiple climate risks such as flood, drought, storm, etc.

Climate change will likely increase the trends of extreme weather events

- ◆ Structural measures
 - Infrastructure and 'hard' engineering options
- ◆ Non-structural measures
 - Early warning systems and other 'soft' adjustments such as land use planning
 - Promotion of preventive measures by 'risk communication'



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Examples -Structural and Non-Structural Measures against Floods

Structural measures



(UPPER)
Multi-purpose evacuation center
(LOWER)
Culvert



(UPPER)
Borehole / Well
(LOWER)
Evacuation center



Non-structural measures



(UPPER)
Disaster Education at school
(LOWER)
Participatory activity for hazard map



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<Case Study> 'Climate Variability Study and Societal Application through Indonesia' - Japan "Maritime Continent COE"

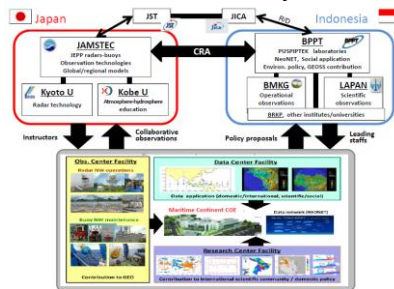
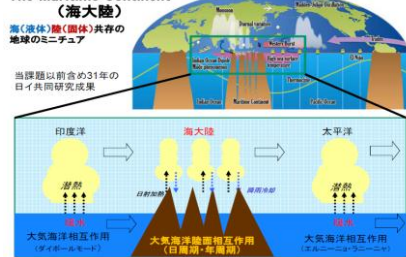
◆ JICA-JST Science and Technology Research Partnership for Sustainable Development (SATREPS)

Project Objectives

- Improvement of Accuracy in Climate Projection by Providing Observational Data and Scientific Outcomes over Indonesia
- Optimization of Atmospheric (Radar) and Oceanic (Buoy) Observation Networks and Improve Rainfall Predictability over the Indonesian Maritime Continent

→Possible Utilization and Dissemination of Seasonal Climate Projections

The Maritime Continent





<Case Study>
‘Grant Aid Program for Improving the Weather Forecasting System and Meteorological Warning Facilities in Samoa’

Enhancing weather forecasting ability and reducing vulnerability to natural disaster through improvement of system and facilities

“Program Grant Aid for Environment and Climate Change”
 (2010~2013, about 750 mil JPY (8 mil USD))

Grant aid offering a combination of tangible (facilities and equipment) and intangible (technical support) components



Equipment installed at Samoa meteorology headquarters



- Expected outcomes include:
 - Nationwide meteorological monitoring system allowing early warning of weather related disasters, providing detailed information on cyclones
 - Accumulation of weather data helping global climate change research as well as improving local scientific knowledge of weather impact on industries

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<Case Study>
‘Technical Cooperation Project for Strengthening Capacity of Community Disaster Risk Management in the Pacific Region (2010-2013)’

➤ **Expected Outputs**

- (1) A flood warning system is in place and appropriately managed by the agency and the target community residents understood and respond accordingly
- (2) National Disaster Management Office disaster management capacity is developed
- (3) The target community's awareness on disaster preparedness is enhanced

Public Help (公助)	National Disaster management plan, Improvement of evacuation alerts based on the meteorological monitoring data
Mutual Help (共助)	Flood monitoring at Community levels, structural-measures (Banking up roads, etc)
Self Help (自助)	Evacuation training, Hazard map, non-structural measures (education, etc)





Thank you for your attention!

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