

The Big Picture – Climate Change as a Planning Challenge

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Outline

- Climate change
- Climate change adaptation in the context of climate change issues and sustainable development
- Sequence of climate change adaptation actions
- Challenges
 - Technical
 - Institutional
 - Resources
- Responses to challenges

Climate change

- Combined with “anthropogenic forcing” with high degree of uncertainty
- Extensive, uneven distribution of possible impacts, indiscriminative – affects developing and developed countries
- Recent phenomena
- Mitigation and adaptation

Climate change adaptation

- A pair of wheels with mitigation
 - Lower cost for early response and successful mitigation action
 - Inseparable - co-benefits/win-win options
- An essential component of sustainable development
 - Needs cross-sectoral (horizontal) and multi-stakeholder along the decision-making (vertical) approach
 - Should fit into green economy, green growth, etc.
 - Should become a norm to “have development done right”
- Not old, but not all new, either
 - Disaster management, crop variety development, etc.
 - Indigenous knowledge
 - Aim to address possible *incremental* impacts from climate change

Sequence of climate change actions

- Future climate change forecasting
 - Global and downscaling
- Vulnerability/impact assessment
 - EIA
- Strategy development, planning, policy making
 - Mitigation: targets and measures
 - Adaptation: responsive or proactive measures
 - Various framework/tools
 - International: protocol, CDM/carbon market
 - National: NAPA, NAMA, etc.
- Implementation of strategies, plans, policies
- Assessment of outcome

Challenges 1: Technical capacity

- Limitation in climate change forecasts
 - Accuracy of the short-/long-term forecasts by global models
 - Difficulties in down-scaling and inclusion of micro-climate conditions
- Limitation in assessment methodologies
 - Appropriate indicators for economic, environmental, social impacts
 - Lack of appropriate indicators (a single proxy, compound) to evaluate resiliency, adaptive capacity, the effectiveness of adaptive measures, etc.
- Limitation in availability and quality of data
 - Absence of data, insufficient observation points, lack of standardized data collecting methods, etc.

Challenges 2: Institutional capacity

- Capacity in climate change forecasts, vulnerability/impacts assessment
 - National agencies, research institutes, universities
- Governance in strategy development, policy making
 - Awareness
 - Insufficient capacity/mandate of office in charge
 - Poor inter-governmental coordination (cross-sectoral), sectionalism ⇒ *Establishment of national climate council, etc.*
 - Immature democratic/ not-so-transparent decision-making, conflicts of interests, corruption, vested rights, rent-seeking behavior, etc.
- Capacity to identify gaps in adaptation measures and assistance needs, to prioritize issues

Challenges 2: Institutional capacity (cont'd)

- Capacity in project implementation, project formulation, accessing/managing fund
 - Lack of experience or aid fatigue/ too much dependency on aid agencies
- Difficulties in policy making under *dynamic* circumstances
 - Rapid development in emerging economies
- Lack of common ground for international climate change discussion
 - Free riders

Mainstreaming of adaptation in Japan

A lot more emphasis on mitigation

Comparison of entry of key words between MAFF and MOE

	Ministry of Environment			Ministry of Agriculture		
	GHG	Mitigation*	Adaptation**	GHG	Mitigation*	Adaptation**
2004	30	10	0	1	1	0
2008	78	114	13	1	1	0
2009	86	197	14	31	54	7

Based on the each ministry's annual white paper (relevant chapters only)

*: Only those related to CO2/GHG were counted

** : Only those appear in the context of climate change were counted

Note: There is a tendency that each ministry tries to reduce the description of the other ministries when reviewed (sectionalism).

Challenges 3: Resources

- Financial base
 - Insufficient national budget
 - Lack of access to external fund
- Human capital
 - Insufficient institutional capacity for policy/decision making (Challenges 2) ⇒ inappropriate resource allocation/management, issue prioritization
 - Insufficient institutional capacity to develop knowledge base
- Knowledge base
 - Insufficient knowledge generation
 - Lack of clearing house of existing lessons and good practices
 - Insufficient exposure to new knowledge
 - Investigation of emerging issues and new problems

Responses to challenges

- Use of available tools to develop capacity to deal with adaptation
 - Community-based, eco-system-based, vulnerability-based adaptation
 - EIA
- Use of available knowledge from supporting mechanisms
 - Adaptation-related network (APAN, AKP, etc.)
 - AECEN's twinning project (south-south/north-south capacity development), etc.
 - AECEN's EIA compendium and clearinghouse (forthcoming), etc.

Responses to challenges (cont'd)

- Development of proactive measures and decision-making supporting tools for adaptation
 - Introduce “climate proof” criterion into projects
 - MRV in mitigation
 - Tools to formulate win-win/no regret options
 - Designing more *adaptive* policies
 - Advanced EIA?
- Invest on human capacity development and R&D to deal with climate change
 - R&D that induces private sector's involvement
 - Creation of green jobs
- Go beyond adaptation