Parallel Session 1-2_B: Innovative Monitoring, Reporting and Verification System in Asian Countries

Shuichi Ashina, Chair of the Session
Senior Researcher / Manager of International Coordination Office
National Institute for Environmental Studies

Marissa Malahayati, Rapporteur of the Session

The presentation includes research outcomes from The Environment Research and Technology Development Fund (ERTDF, 2-1711) of Environmental Restoration and Conservation Agency and Ministry of the Environment, Climate Change Adaptation Research Program of NIES, the “Project to Promote CO2 Technology Assessment (from FY2014-2017)” of Ministry of the Environment, Japan, and JSPS-DG-RSTHE Joint Research Project funded by the Japan Society for the Promotion of Science.

LoCARNet 7th Annual Meeting
November 21-22, 2018 at Arya Duta Hotel – Jakarta, Indonesia
(1) What is National/Regional Targets and Actions towards the SDGs in Asia?

(2) How to Design Roadmaps/Pathways towards the SDGs at National/Regional Scale?

(3) How to Monitor Progresses and Impacts of Actions (or MRV for Actions) towards the SDGs?

(4) How to Integrate (1) to (3), and the Role of S&T
Way to Monitor Progress in Mitigation: Reduction in GHG Emissions

2020年度の削減目標
2005年度比▲3.8%以上*)

2030年度の削減目標
（日本の約束草案）
約10億4,200万tCO₂
（2013年度比▲26.0%）

2050年の削減目標
80%削減*)

*) 地球温暖化対策計画（平成28年5月13日　閣議決定）
Region/Subnational is *NOT* miniature of national situation.

- Regional characteristics should be considered for MRV in regional/city.

  Example: Wind situation differs island and island, and area by area.

Source: http://energy-indonesia.com/03dge/Soeripno%20Martosaputro.pdf
Different Scale, Intercorrelating among Scales

- Different scales but all things are intercorrelated.

**Global**
- Representative Concentration Pathways (RCPs)
- Shared Socio-Economic Pathways (SSPs)
- Food hunger risk

**National**
- Low Carbon Scenario
- Adaptation Strategy
- Nationally Determined Targets (NDC)
- Greenhouse Gas Inventory

**Regional**
- Low Carbon Development Plan
- Low Carbon Actions
- Adaptation Strategy
- Regional Energy Potential

**City**
- Low Carbon Town Planning
- Compact city
- Project Design
- Stakeholders Involvement
- Social Monitoring

2018/11/21
Climate Change Impacts/Adaptations also important

Rice yield considering quality (RCP8.5, MIROC5)

Without adaptation (current rice breed and transplanting date)

With adaptation (optimum transplanting date with a large yield reducing quality loss due to high temperature)

0.0 – 0.5 times
0.5 – 1.0 times
No change
1.0 – 2.0 times
2.0 times -
Steps for National Adaptation Plan/Law in Japan

**Fourth Environment Basic Plan** (Cabinet Decision, April 2012) decided to assess impacts of climate change and to promote adaptation measures.

“**Expert Committee on Climate Change Impact Assessment**” was established under Central Environment Council (2 July, 2013).

- Projection of climate change and its impacts in Japan
- Reviews for more than 500 papers by 57 experts
- Assessment for 56 items in 7 sectors
- Expert judgement on significance, urgency and confidence levels


**Inter-Ministry Meeting** for Climate Change Adaptation (11 September, 2015)

National Adaptation Plan was draft by the Inter-Ministry Meeting, and called for **public comments** (23 October, 2015)

**National Adaptation Plan** was formulated (Cabinet Necision, 27 November 2015)

**National Climate Change Adaptation Law** will be enforced on 1st Dec., 2018.
A-PLAT (Climate Change Adaptation Platform) is a "One-stop" online resource for adaptation to climate-change impacts in Japan.

- Aims at being a basis for adaptation actions of local governments, businesses, and citizens.
- Collects and provides climate risk information and best practices; develops tools to promote adaptation actions.
- Operated by NIES with cooperation of relevant ministries.

Provide climate risk information

Stakeholders:
- Local Government
- Private Sectors
- Individuals & Communities

http://www.adaptation-platform.nies.go.jp/index.html
Asia-Pacific Climate Change Adaptation Platform

Announced at COP22

- Asia Pacific Adaptation Information Platform will be established by 2020 to share climate risk information via online with research institutes/universities in both developing/developed countries.
- To support adaptation measures by providing advanced scientific climate risk information.
- Japan will take a lead in the following activities under the Platform:
  1. Develop dataset on projection of climate change impacts in the region through bilateral & intensive studies.
  2. Develop supporting toolkits for officials and stakeholders engaged in adaptation planning.
  3. Build capacity on climate change impact assessment/adaptation planning.
Approach to Climate Change Impacts/Adaptations

Stage 1: Identify Climate Change and its Impacts

Stage 2: Assess Exposure and Risk

Stage 3: Deliberate on Adaptation Options

Stage 4: Implement Adaptation Efforts

Stage 5: Monitor and Assess Adaptation Options

Based on: Gordon McBean at RACC10
Presenters in the Session PS1-2B

1. Dr. Kei Gomi, NIES, Japan
   *Spatial Low Carbon Modeling for Urban Development: Japan Experience*

2. [Canceled] Ms. Sri Tantri, KLHK, Indonesia
   *Lesson Learnt: Monitoring Impact of Adaptation Program in Indonesia using SIDIK*

3. Dr. Seiya Maki, NIES, Japan
   *Expanding Methodology Plan by Using Data Fusion Method*

4. Dr. Retno Gumilang Dewi, ITB, Indonesia
   *Challenges for Developing Effective MRV System for Industrial/Energy Sector*

5. Mr. Bregas Budianto, IPB, Indonesia
   *Monitoring System for Green Campus*

Each Presenter has 15 min presentation