Asia Low Carbon Society Research Project

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LCS activities in Asia

- AIM has contributed processes to formulate climate policy in Japan, and the activities are expanded to Asia. **AIM has been involved in formulation processes of low carbon policies through collaboration with Asian researchers.**

- Since FY2014, “Asia Low Carbon Society Research (LCSR) Project” which is funded by MoEJ is launched. The project includes **not only making low carbon scenarios but also designing practical programs to realize LCS** in target regions.

Target Regions
FY2014 -

National
- Thailand
- Indonesia
- Malaysia
- Cambodia
- Vietnam

City
- [Vietnam]
  - Ho Chi Minh
  - Da Nang
  - Hai Phong
  - [Malaysia]
  - Putrajaya
  - Iskandar
Asia LCSR Project

- AIM team has collaborated with Asian researchers and policy makers to develop LCS scenarios and roadmaps.
- Practical program for emission reduction targeting building sector has also been designed through collaboration with Tokyo Metropolitan Government.
- Policy dialogues between researchers and policy makers were organized.

Collaboration on LCS study
Develop LCS roadmaps

AIM(JP)
IGES/ RU/ E-konzal/.../Mizuho

with Tokyo

Collaboration on policy design and implementation

Researchers

Dialogues to enhance communication

Policy makers

- Thailand
- Indonesia
- Malaysia
- Cambodia
- Vietnam

[Vietnam]
- Ho Chi Minh
- Da Nang
- Hai Phong

[Malaysia]
- Putrajaya
- Iskandar

Supported by MOEJ
Activities of Asia LCSR project

Components of activities of LCSR project are shown below. Scope and target cities of the activities vary year by year.

1. Relation building
   - a. Find counterparts
   - b. Relation building
   ← Dialogues, WS

2. Develop LCS plan
   - a. CB of researchers
   - b. Quantitative analysis
   ← Training, collaboration

2+. Design program
   - a. CB of policy makers
   - b. Design practical program
   ← Training, collaboration

3. Policy dialogue
   - a. Input to local authorities
   - b. Appeal to various parties
   ← International events

Components of activities of LCSR project are shown below. Scope and target cities of the activities vary year by year.
LCS Scenario Development
LCS Scenarios Development: Workflow

Procedure and workflow for LCS scenarios development are show as follows.

### Procedure

#### 1. Start of the Story
- 1.1 Formulation of the region’s top initiative
- 1.2 Resource allocation and team formulation

#### 2. Framework Setting
- 2.1 Background research
- 2.2 Framework setting

#### 3. Data Preparation
- 3.1 Collection of statistical data and future plan
- 3.2 Estimation of necessary data in base year
- 3.3 Assumption of future change of the society

#### 4. Design of LCS Projects and Projection of Future Scenario
- 4.1 Projection of BaU scenario by quantification tools
- 4.2 Listing of LCS projects
- 4.3 Calculation of emission reduction by project
- 4.4 Projection of LCS policy scenario by quantification tools
- 4.5 Adjustment of project-based emission reduction

#### 5. Bridging the Output to Real World
- 5.1 Formulation of actions and projects for implementation
- 5.2 Reporting the result to policy makers

### Work and Events

#### Kick-off meeting
- Formulate team and decide schedule

#### Training workshop
- Learn how to develop LCS scenario

#### Follow-up meeting
- Allocate tasks to each member

#### Technical meeting
- Present preliminary results and discuss how to improve
- Revise the scenario based on advice in the technical meeting

#### Final workshop
- Present a completed scenario to policy makers, experts, enterprises and universities.

Source: Presentation by Nguen Thai Hoa and Yuki Ochi (Oct. 2017)
LCS Scenarios Development: Workflow

- Quantitative analysis to estimate scenarios by ExSS (Extended Snapshot tool).

Prepared data for base year → Assumption for future society and economy → ExSS (Top-down method) → BaU Scenario

Socio-economic indicators → Energy consumptions → GHG emissions → ExSS (Top-down method) → LCS Scenario

Listing of LCS projects → Bottom-up estimation → GHG reduction by each project (Tentative)

Source: Presentation by Nguyen Thai Hoa and Yuki Ochi (Oct. 2017)
AIM has supported the development of LCS plans in Ho Chi Minh, Da Nang, and Hai Phong cities. GHG reduction potential and possible countermeasures towards 2030 are identified based on quantitative analysis by AIM/ExSS.

LCS plans were developed through collaborative works and discussions with counterparts.
Program Design through Collaboration with TMG
Policy Design: Concept

- Local authorities in Malaysia (Putrajaya, Iskandar) completed LCS scenario development through collaborative work with AIM (supported by MOEJ, JICA/SATREPS)

- Both of the cities are now moving on to implementation of the LCS plans to realize low carbon society.

LCS Planning through quantitative approach

GHG Emission & Reduction  LCS Policies & Actions

COMPLETED!!

Next Stage

Implementation

Policy design for emission reduction has been conducted through collaboration with Tokyo Metropolitan Government
Policy Design: Workflow

1. Relation building
   - Policy Dialogue
     - Relation building/Enhancement of understanding
     - Agreement for launching activities for policy design
   - Disclosure of the draft
   - Top-commitment

2. Policy design
   - Drafting program
   - Capacity development for policy design
   - Detail design for implementation
   - Feasibility studies (on-site energy audit)

3. Introduction

4. Implementation
Example (Case in Malaysia)

- AIM team has collaborated with both cities (Putrajaya and Iskandar) to design monitoring and reporting program since 2014.

- **Trainings, workshops and intensive discussions** among city staffs, TMG staffs and AIM experts have been conducted for many times.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Dialogues &amp; training workshops for knowledge sharing</td>
</tr>
<tr>
<td>2015</td>
<td>Draft new scheme &amp; disclose it at COP21</td>
</tr>
<tr>
<td>2016</td>
<td>Workshop for program design in details</td>
</tr>
<tr>
<td>2017</td>
<td>Policy dialogue &amp; collaborative works for program design in details</td>
</tr>
</tbody>
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The scheme will be implemented from 2018FY
Example (Case in Malaysia)

- Iskandar authority drafted the **Building Energy Monitoring and Reporting System: BEMRS** by referring policy action implemented in Tokyo.

- The authority is conducting energy audit program as pilot phase of BEMRS. The program will be started in next year targeting governmental buildings.

  **Phase 1**

  2017
  Energy audit as pilot project

  2018-2022
  Targeting all of Govn’t bldg.

Source: Presentation at MOEJ of Mr Boyd (Jan. 2017)
Activities in FY2017 and Future Plans
Activities in FY2017

Policy Dialogues /Events

- ISAP 2017
  - JUL
  - AUG
  - SEP

- Initiation WS
  - OCT
  - NOV
  - DEC
  - JAN
  - FEB
  - Semarang
  - Can Tho
  - Phnom Penh

- LoCARNET COP23
  - Brochure (Semarang)
  - Refine

- Follow-up WS
  - Ad hoc (each city)
  - JP-VN PD (MOEJ)
  - ASEAN HLS (MOEJ)

LCS Scenario

- Semarang
- Phnom Penh
- Can Tho
- Hai Phong
- Ho Chi Minh
- LCS scenario
- Further analysis
- Training Meeting
- Data collection ExSS Analysis
- ExSS+Waste / Enduse analysis
- Refine Results
- Results

Program Design

- Iskandar
  - BEMRS template Prep.
  - Training

- Ho Chi Minh
  - Training
  - Meeting
  - Relation building/Prep.
Future Plans

■ Expand target regions
  - Prospected cities in FY2018
    > Hanoi and Quezon: LCS scenario development
    > HCMC: policy design & implementation.

■ Further analysis of LCS scenario
  - Analysis on not only energy sector but also other sectors are required in ASEAN cities.
  - Cost analysis is also required to policy processes in not only target cities but also Japan to find actual project.

■ Support on policy design and implementation
  - Sharing knowledge/experiences of policy design with ASEAN cities (other than Iskandar and Putrajaya)
  - Co-work on policy implementation (BEMRS in Iskandar)
Thank you for your attention!