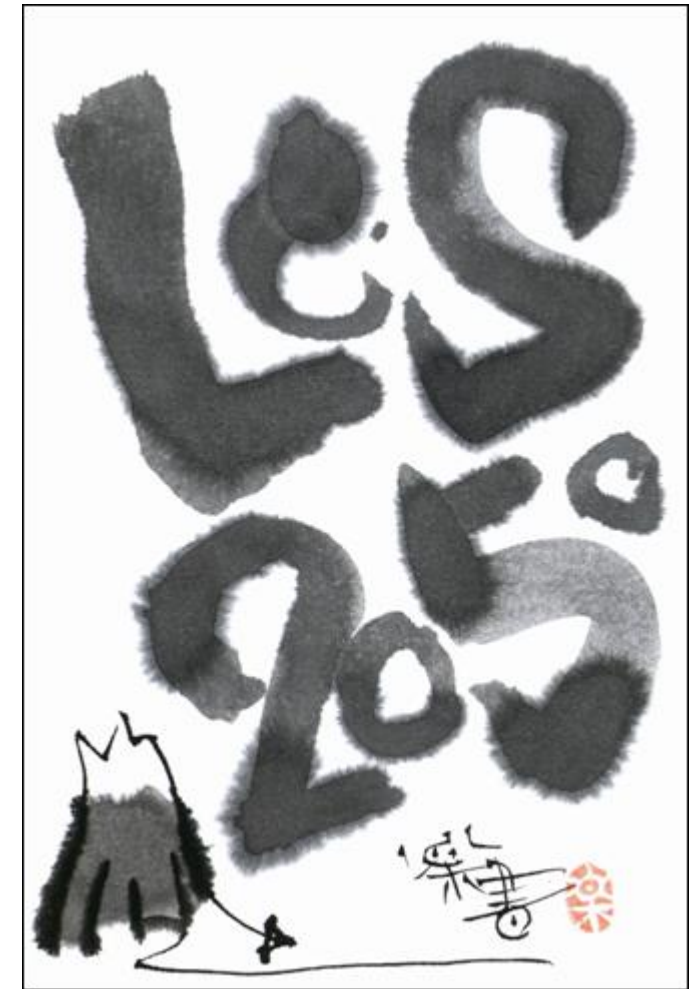


# Introduction of Japan's initiatives and the NAMA Guidebook

1. If we cannot go to LCS,...
2. LCS offers higher QOL with less energy demand and lower-carbon energy supply
3. LCS needs good design, early action, and innovations



Designed by Hajime Sakai

**Junichi FUJINO (fuji@nies.go.jp)**

**NIES (National Institute for Environmental Studies), Japan**

**“Guidebook on NAMA-based experiences in Asia and the World”**

Japan Pavilion Side Event at the COP19 in Warsaw, Poland

**15th Nov 2013**

# Net Global Reduction for Sustainable Development

National

Sector

Regional

Program

Activity

etc.

NAMAs



MRV



Activity	2005	2010	2015
Energy Intensity	100	150	120
Freight Transport	50	80	60
Passenger Transport	30	50	40
Manufacturing	20	30	20
Commercial	10	15	10
Household	5	10	5
<b>Total</b>	<b>325</b>	<b>505</b>	<b>377</b>

Lessons from field experiences

Developing and implementing NAMAs / MRV based on Guidebooks

Lessons from field experiences

**NAMAs and MRV Guidebooks**

**Object of  
MRV**

GHG emissions



UNFCCC Act.12  
Inventories



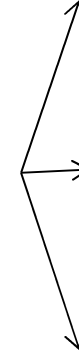
National  
level

C40 cities



Sub-national  
level

GHG protocol



Corporation  
level

Project  
level

**Boundary**

Originally designed  
by Dr. Tamura, IGES

**Object of  
MRV**

GHG emissions

GHG emissions  
reductions

BaU, Projections



UNFCCC Act.12  
Inventories

National  
level

C40 cities

Sub-national  
level

GHG protocol

Corporation  
level

Project  
level

Policy level

National  
level

Sub-national  
level

Corporation  
level

Project  
level

KP Act.12

WRI Policy  
Accounting

EU ETS  
JVETS

CDM  
J-VER  
JCM

**Boundary**

# Contents 1/4

## Chapter 1: Background

Motivation to participate in the writing and expected contribution to the Guidebook.

Basic structure and characteristics of the Guidebook (bottom-up or top-down approach, experiences in Asia).

## Chapter 2: Basic elements in relation to NAMAs

### (1) Linkage between sustainable development and low-carbon development plans of developing countries

Introduction to NAMAs as an opportunity to implement low-carbon development. Introduction of finance and technology, as well as opportunity to have co-benefits through economic and social development.

### (2) Elements determined through UNFCCC (COP) decisions

Listing of minimum requirements by analyzing each COP's decision. (Inclusion of MRV, existence of support options, aim of deviation from BAU in 2020, inclusion of indexes and quantitative goals by reporting through BURs, desirable link with LCDS, etc.)

Classification of NAMAs

### (3) Some aspects in the introduction of NAMAs

Existence of 1) technology aspects, 2) mainstreaming aspects, 3) organizational aspects in relation to NAMA decisions. (Depiction through a graph)

### (4) Financial options

Introduction of varied financial schemes that can be used with NAMAs. Specially the financial and technical scheme of JCM.

Financial scheme access

# Contents 2/4

## Chapter 3: Approach of NAMA Decisions

### (1) Top-down approach

Illustration of GHG emissions trend forecasting and quantification of emission reduction potential, as well as methods to elaborate scenarios used by the AIM model.

### (2) Bottom-up approach

Illustration of determination of BAU and NAMA scenarios, specification of technology options, used in a bottom-up approach used in OECC's capacity building activities.

### (3) MRV of Policy-based NAMAs

Relation between NAMAs and MRV will be explained through the Japanese case (Kyoto Protocol Target Achievement Plan)

# Contents 3/4

## Chapter 4: Experiences of NAMA development in Asia and the world

- (1) Scenario development (AIM) in the Asian region  
Summary and experiences of scenario determination in the Asia region
- (2) AIM initiatives in Iskandar, Malaysia  
Calculation used through AIM in Iskandar, Malaysia
- (3) Energy supply in Mongolia (OECC)  
Energy supply sector in Mongolia, establishment of a National Committee, sample of NAMA Implementation Plan
- (4) Waste sector in Vietnam (OECC)  
Waste sector in Vietnam, establishment of a National Committee, sample of NAMA Implementation Plan
- (5) Agriculture sector in Cambodia (OECC)  
Agricultural sector in Cambodia (National Biodigester Programme), establishment of a National Committee, sample of NAMA Implementation Plan
- (6) Transport sector in Lao PDR (OECC)  
Transport sector in Lao PDR (EVs), establishment of a National Committee, sample of NAMA Implementation Plan
- (7) Transport sector in Latin America (WRI/Embarq)

# Contents 4/4

Chapter 5: Facts obtained from analysis, future prospects (under revision)

Conclusions

Summary of donor's activities

Description of specific policies

Chapter 6: List of References



**National/Sub-National  
NAMA type study  
by AIM simulations**



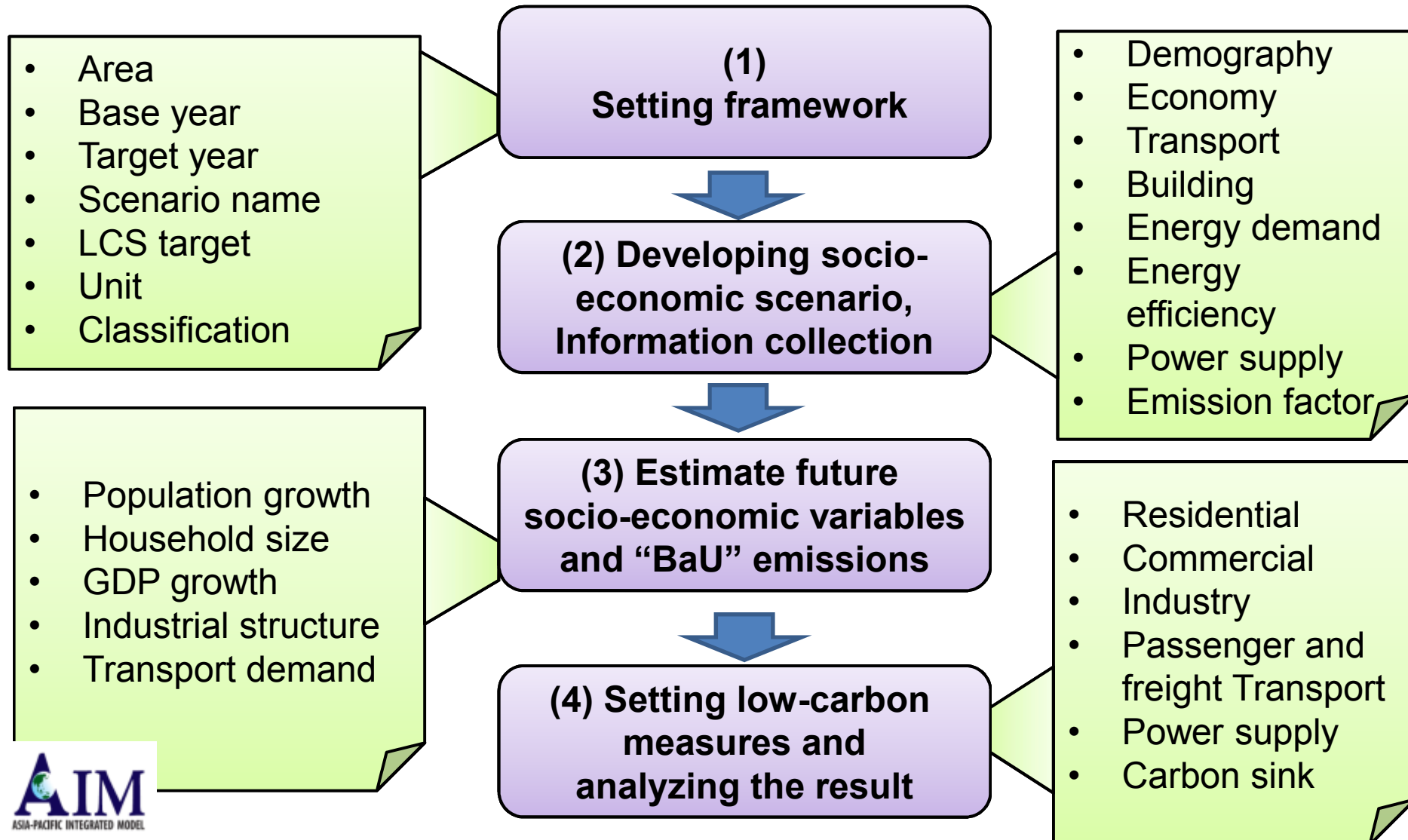
AIM is an abbreviation of “Asia-Pacific Integrated Model” to support design sustainable societies and suggest actions comprehensively and consistently in quantitative manner.

AIM developed by National Institute for Environmental Studies (NIES) in collaboration with Kyoto University and several research institutes in the Asia-Pacific region since 1990.

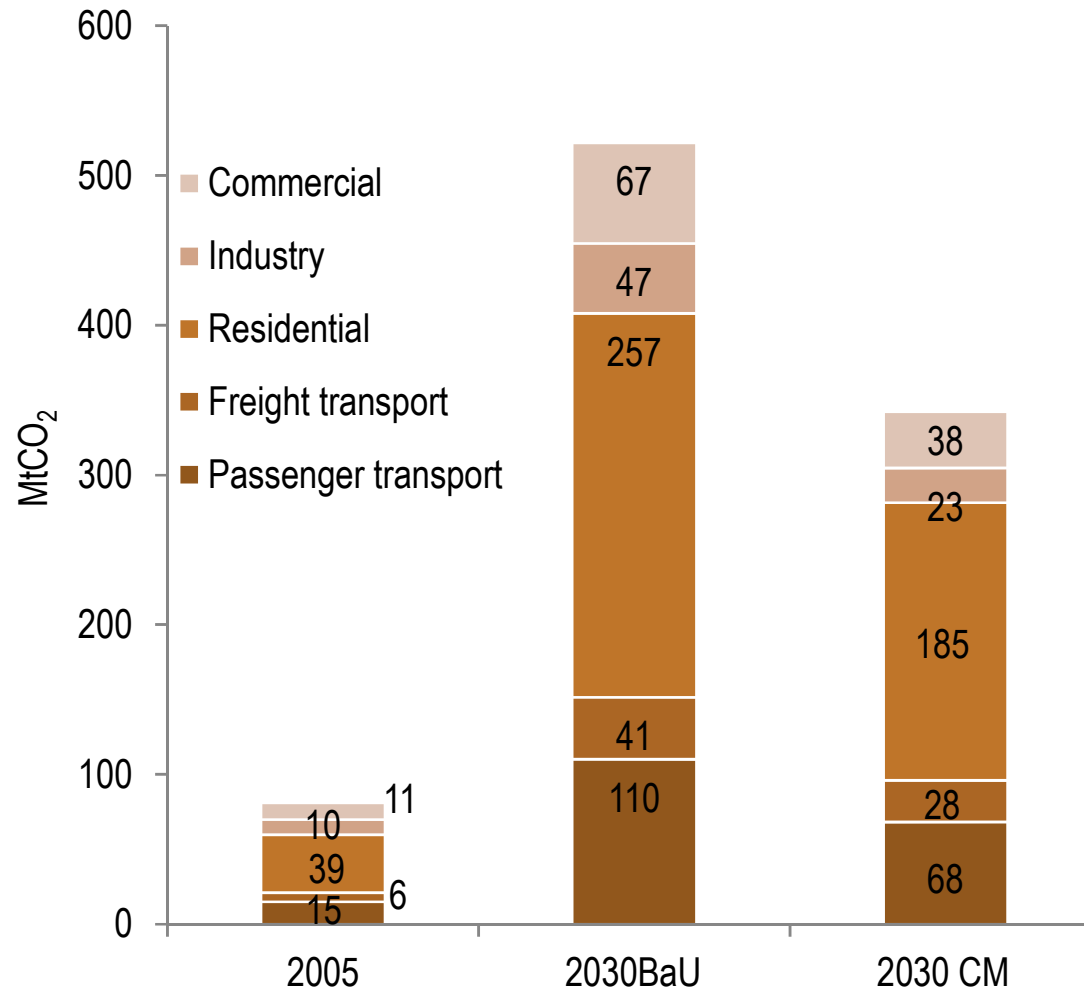
AIM has more than 20 simulation models such as top-down economy models, bottom-up technology models, sector-wise service demand and energy supply model, and environmental aspect models in global/national/sub-national scale.

# Procedure to develop Low Carbon Development Strategies

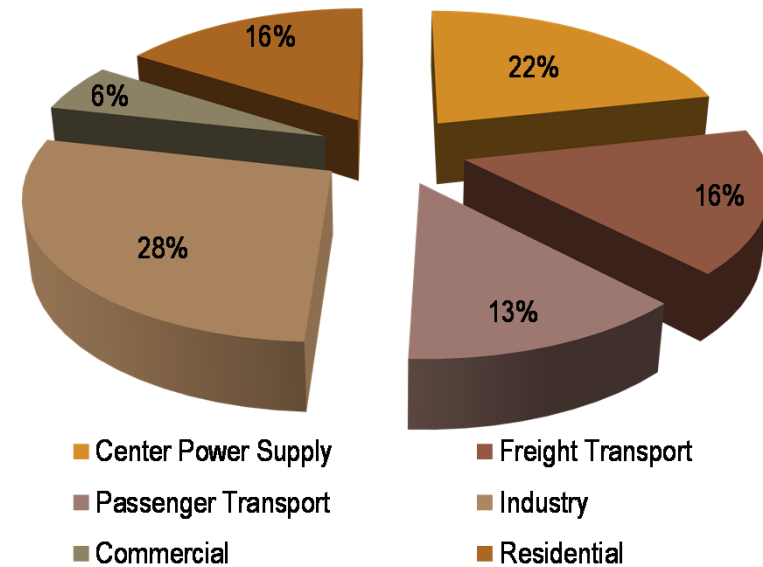
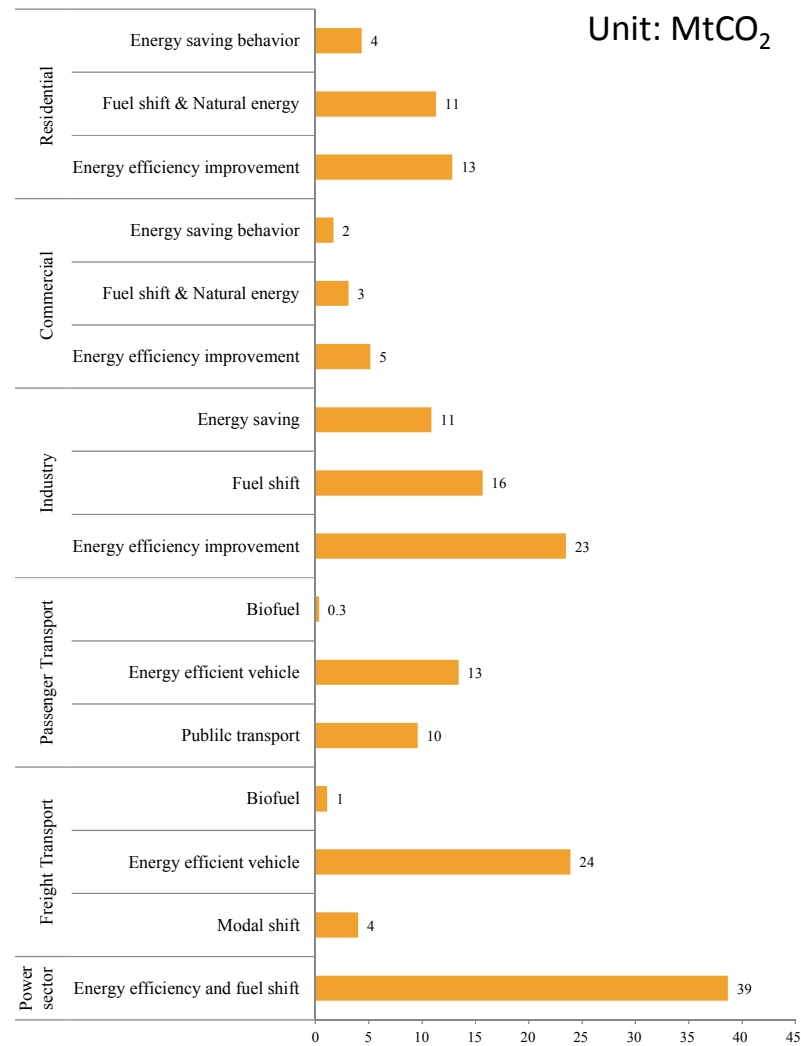
For Asia LCS studies, **ExSS (Extended Snapshot tool; accounting tool)** has been applied to many countries and cities to communicate policy makers.



# Projected CO<sub>2</sub> emissions from energy sector



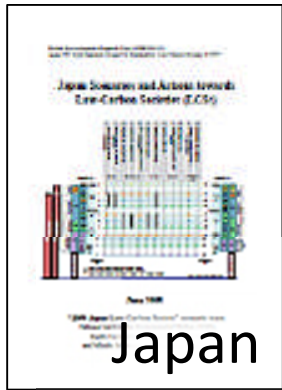
# Contribution of low carbon countermeasures



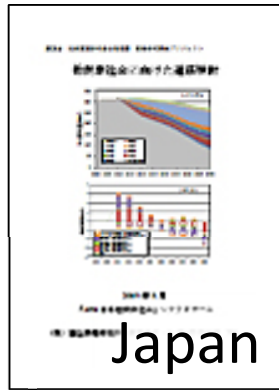


**Low Carbon Society Study Workshop  
25th Apr 2013, Vinh Phuc, Viet Nam**

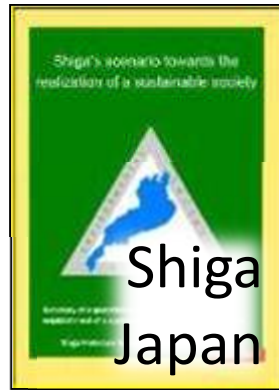
# Low-Carbon Society Scenarios in Asia using AIM



Japan



Japan



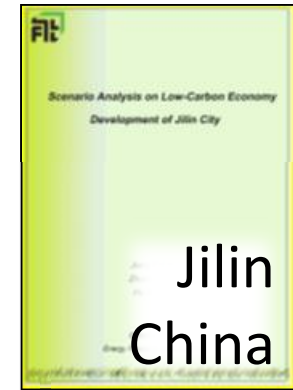
Shiga  
Japan



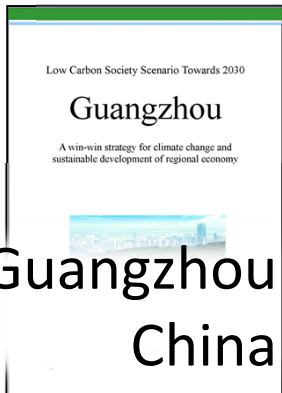
Shiga  
Japan



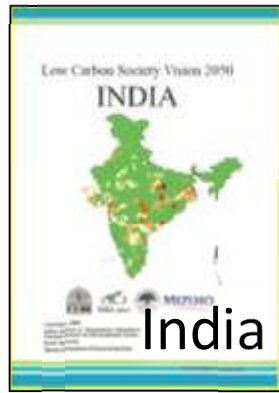
Kyoto  
Japan



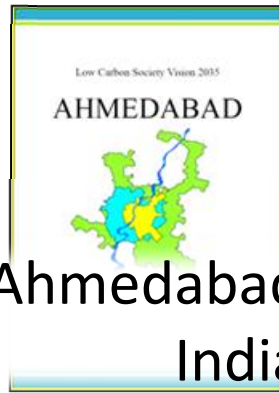
Jilin  
China



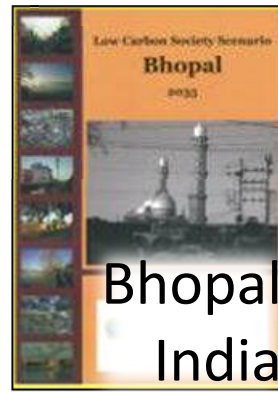
Guangzhou  
China



India



Ahmedabad  
India



Bhopal  
India



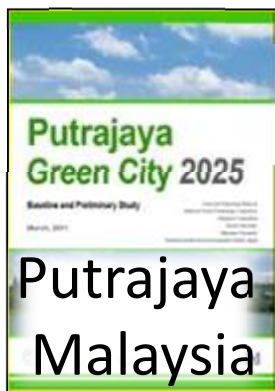
Thailand



Indonesia



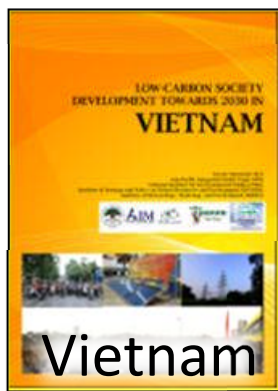
Iskandar  
Malaysia



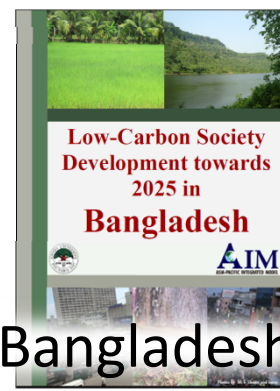
Putrajaya  
Malaysia



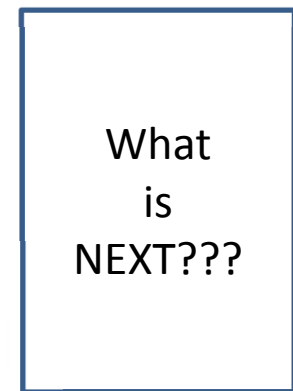
Cyberjaya  
Malaysia



Vietnam



Bangladesh



What  
is  
NEXT???

Sustainable  
Low-Carbon Asia  
comes from  
design,  
imagination  
and  
co-working...

Let's work together!

Asia LCS



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