S2A: Planning and Implementations by Local Governments

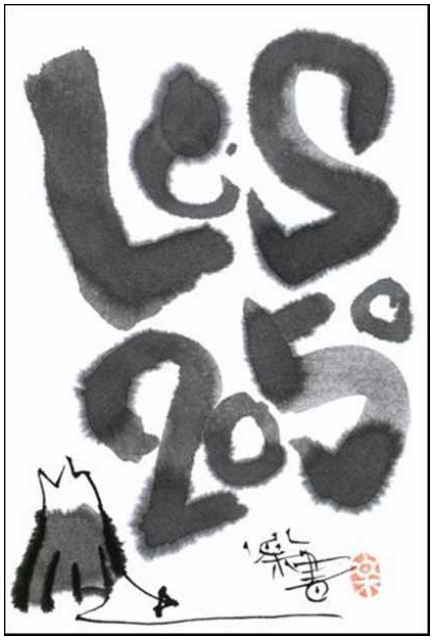
Junichi FUJINO

NIES/IGES

Japan Pavilion Side Event

8th Nov 2016, Marrakesh

Morocco



PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

19:27pm Dec 11th 2015 in Le Bourget, Paris
3:27am Dec 12th 2015 in Tokyo, Japan

Paris Agreement to me

2 degree/1.5 degree

-> zero/minus emissions by 2100

INDCs -> NDCs + 5yr interval CCAP submission and review process

Role of Non-State Actors

(Business + Local Governments)

What happens to national government/local government?

NDCs

+

Local Government Action Plans

How Japan respond to CC

1988 Toronto Conference: 20% GHG emission reductions by 2005 in Developed Countries

-> 1990 “Action Program to Arrest Global Warming”/ stabilize per capita GHG emission by 2000

1992 Rio Summit, 1995 COP1/Berlin Mandate, 1997 COP3/Kyoto Protocol: -6% for Japan

-> 1998 “Outline for Promotion Effects to Prevent Global Warming” and “Act on Promotion of Global Warming Countermeasures”

Article 20-2 (National Government Action Plan)

Article 21 (Action plans of local governments)

http://www.cas.go.jp/jp/seisaku/hourei/data/APGWC_2.pdf

Act on Promotion of Global Warming Countermeasures (1998)
Article 20-2 (National Government Action Plan)

(1) The national government shall implement a plan (referred to hereinafter in this article as the "National Government Action Plan") for measures to reduce greenhouse gas emissions and to maintain and improve greenhouse gas absorption with regard to its own administration and undertakings, in line with the Kyoto Protocol Target Achievement Plan.

(2) The National Government Action Plan shall prescribe the following matters.

(i) Plan period

(ii) Goals of the National Government Action Plan

(iii) Content of measures to be implemented

(iv) Other matters needed for implementation of the National Government Action Plan

http://www.cas.go.jp/jp/seisaku/hourei/data/APGWC_2.pdf

Act on Promotion of Global Warming Countermeasures (1998)
Article 21 (Action plans of local governments)

(1) Prefectural and municipal governments shall formulate plans (referred to hereinafter in this article as "action plans of local governments") for measures to reduce greenhouse gas emissions and to maintain and improve greenhouse gas absorption with regard to their own administration and undertakings, in line with the Kyoto Protocol Target Achievement Plan.

(2) The action plans of local governments shall prescribe the following matters.

(i) Plan period

(ii) Goals of the action plans of local governments

(iii) Content of measures to be implemented

(iv) Other matters needed for implementation of the action plans of local governments

http://www.cas.go.jp/jp/seisaku/hourei/data/APGWC_2.pdf

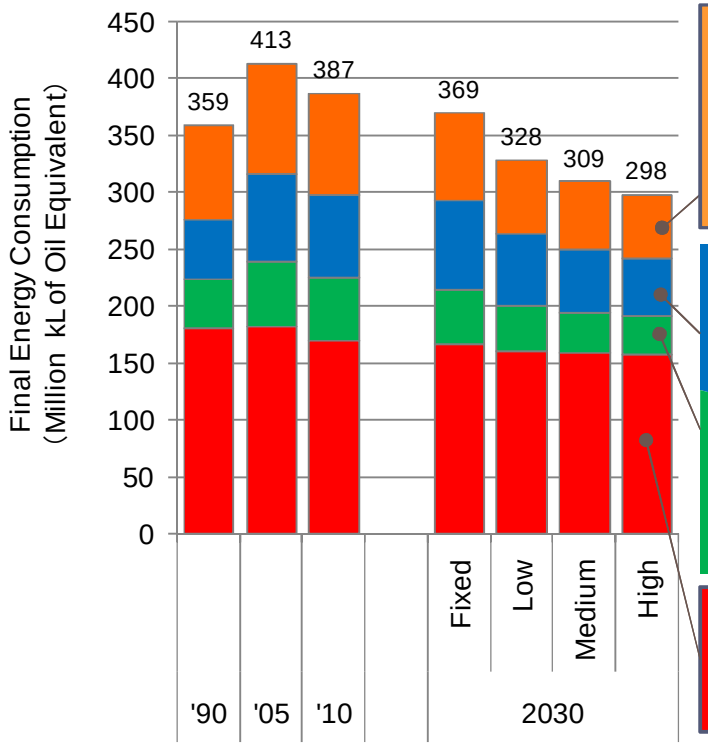
Act on Promotion of Global Warming Countermeasures (1998)
Article 21 (Action plans of local governments)

(3) Upon formulating or changing action plans of local governments, the respective prefectural and municipal governments shall announce those plans without delay.

(4) Once each year, the respective prefectural and municipal governments shall announce the situation of implementation of measures based on the action plans of local governments, including total greenhouse gas emissions.

Analysis by AIM/Enduse in Japan

Final energy consumption in 2030 (low growth case)



Transport

- EV/HV: 70 to 90% of new car sales
- About 40% improvement of freight vehicle efficiency
- Eco-driving in practice : 15 to 40%(passenger), 25 to 55%(freight)

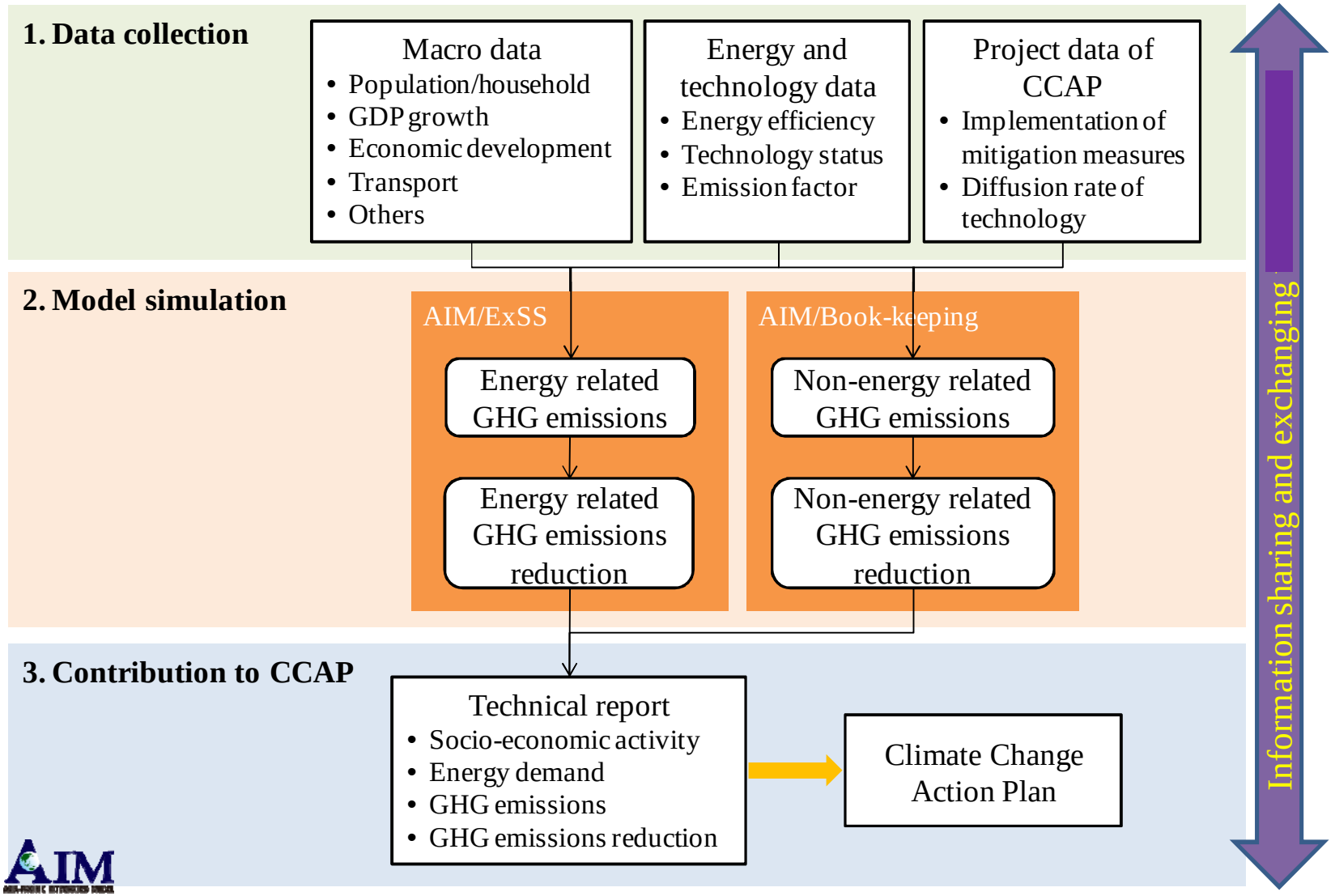
Commercial / Residential

- Ensure all newly built homes and buildings use advanced insulation and energy saving designs/features
- High-efficiency water heater: 75 to 90% in households, 40 to 90% in commercial building
- Home/Building energy management system
- PV power: 28 Mil. kW in households, 38 to 73 Mil. kW in commercial building

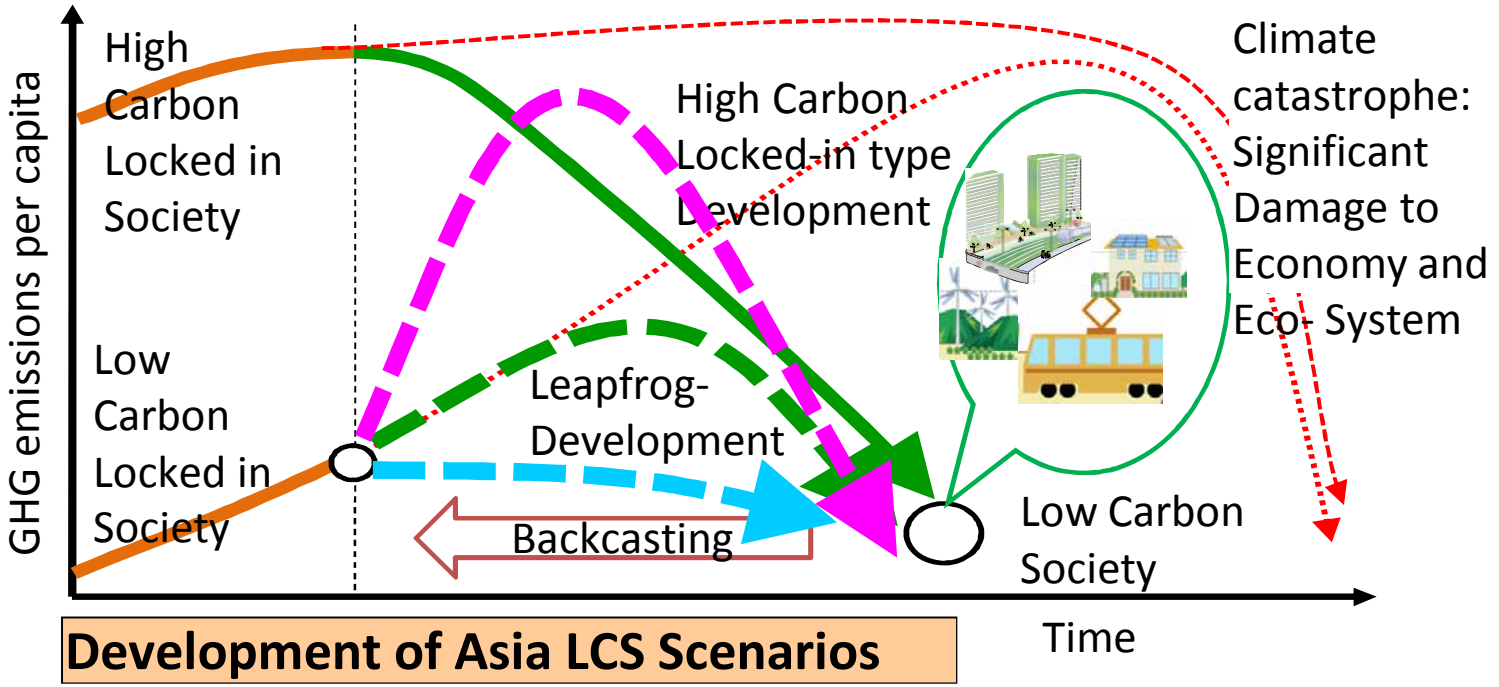
Industry

- Commercialization and popularization of best-available-technology
- Fuel conversion to natural gases

Methodology of LCS scenario development



How to reach to Low Carbon Society in Asia ?



Development of Asia LCS Scenarios

(1) Depicting narrative scenarios for LCS
(2) Quantifying future LCS visions
(3) Developing robust roadmaps by backcasting

Policy Packages for Asia LCS

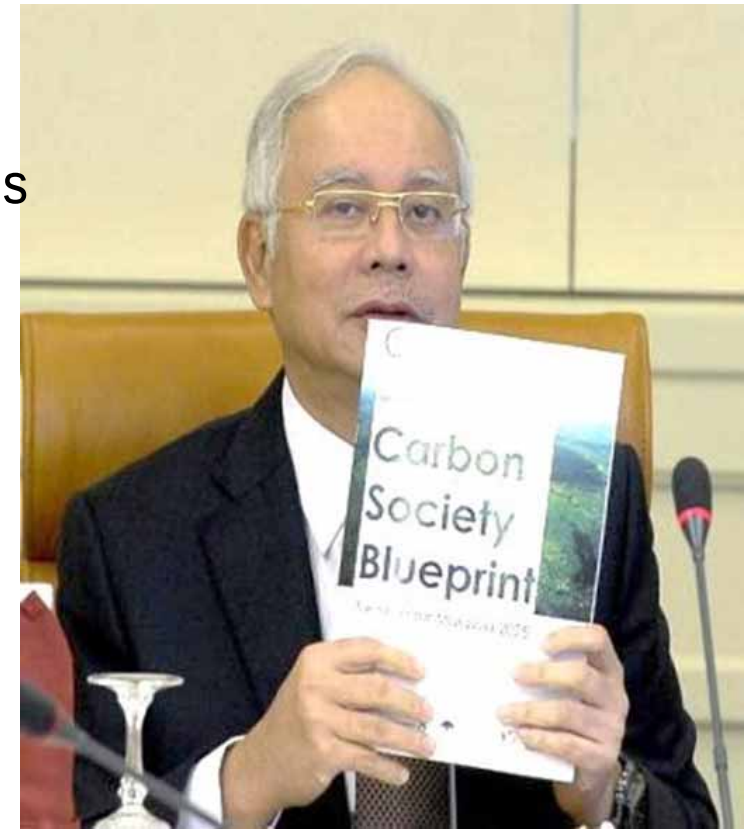
LCS Scenarios and Plans in Asian Countries and cities

Know-How Transfer from Japan to Malaysia

"Development of Low Carbon Society Scenarios for Asian Regions"
In the case of "Iskandar Malaysia"

Japanese experience on
Low Carbon Scenarios & Roadmaps
+
Malaysian challenge on
Implementation of Low Carbon Visions

Premier of Malaysia provided permission in the 13th IRDA Steering Committee to start the Iskandar Low Carbon Society planning
（December 11th, 2012）



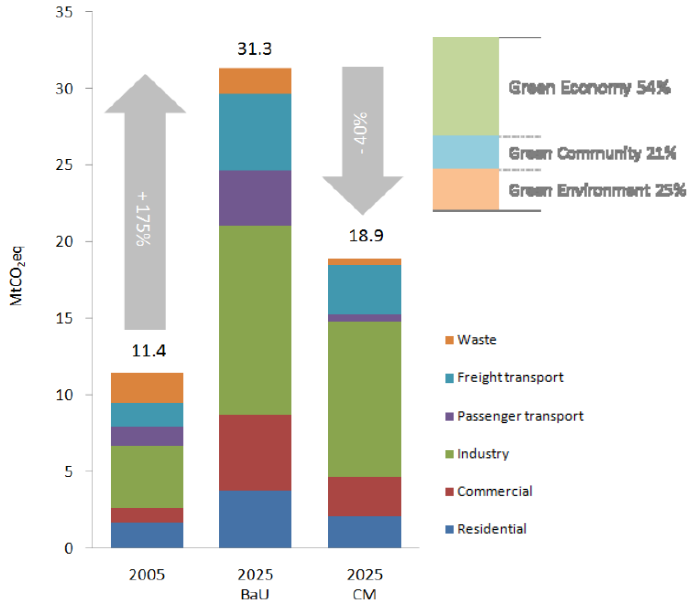
LCS scenarios for policy development in IM

The *Low Carbon Society Blueprint for Iskandar Malaysia 2025*

- ✓ Document that presents comprehensive climate change mitigation policies and detailed strategies to guide development of Iskandar Malaysia
- ✓ Stress on the **holistic and integrated approach to decouple economy and environment development**
  Comprise of two principal components:

  I) Narrative on growth scenarios, policies, measures and programs to achieve a minimum targeted 40**% reduction in carbon emission by 2025** based on the 2005 level and;

  II) **scenario-based modelling** and projection of carbon emission reductions achievable.

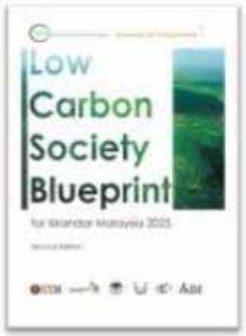


GHG reductions by Actions

Mitigation Options	$ktCO_2$ Reduction	%
Green Economy	6,937	54%
Action 1 Integrated Green Transportation	1,916	15%
Action 2 Green Industry	1,094	9%
Action 3 Low Carbon Urban Governance**	-	-
Action 4 Green Building and Construction	1,203	9%
Action 5 Green Energy System and Renewable Energy	2,725	21%
Green Community	2,727	21%
Action 6 Low Carbon Lifestyle	2,727	21%
Action 7 Community Engagement and Consensus Building**	-	-
Green Environment	3,094	25%
Action 8 Walkable, Safe and Livable City Design	263	2%
Action 9 Smart Urban Growth	1,214	10%
Action 10 Green and Blue Infrastructure and Rural Resources	392	3%
Action 11 Sustainable Waste Management	1,224	10%
Action 12 Clean Air Environment**	-	-
Total	12,467**	100%

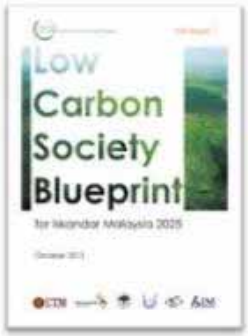
Low Carbon Society for Iskandar Malaysia Publications

2012



Low Carbon Society Blueprint for Iskandar Malaysia 2025- Summary for Policymakers

2013



Low Carbon Society Blueprint for Iskandar Malaysia 2025- Full Report

2013

A Roadmap towards Low Carbon Iskandar Malaysia 2025

2013

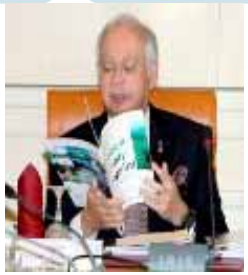
Iskandar Malaysia: Action for a Low Carbon Future

2014

Low Carbon Society Brochures for 5 Municipalities within IM

COP 18, Doha

11th December 2012
The PM endorses the launching of LCSBPIM at COP 18 during MoA



MOA, 2012

MOA, 2013

1st January 2013
IRDA newly set Environment Division to fulfill LCS Blueprint

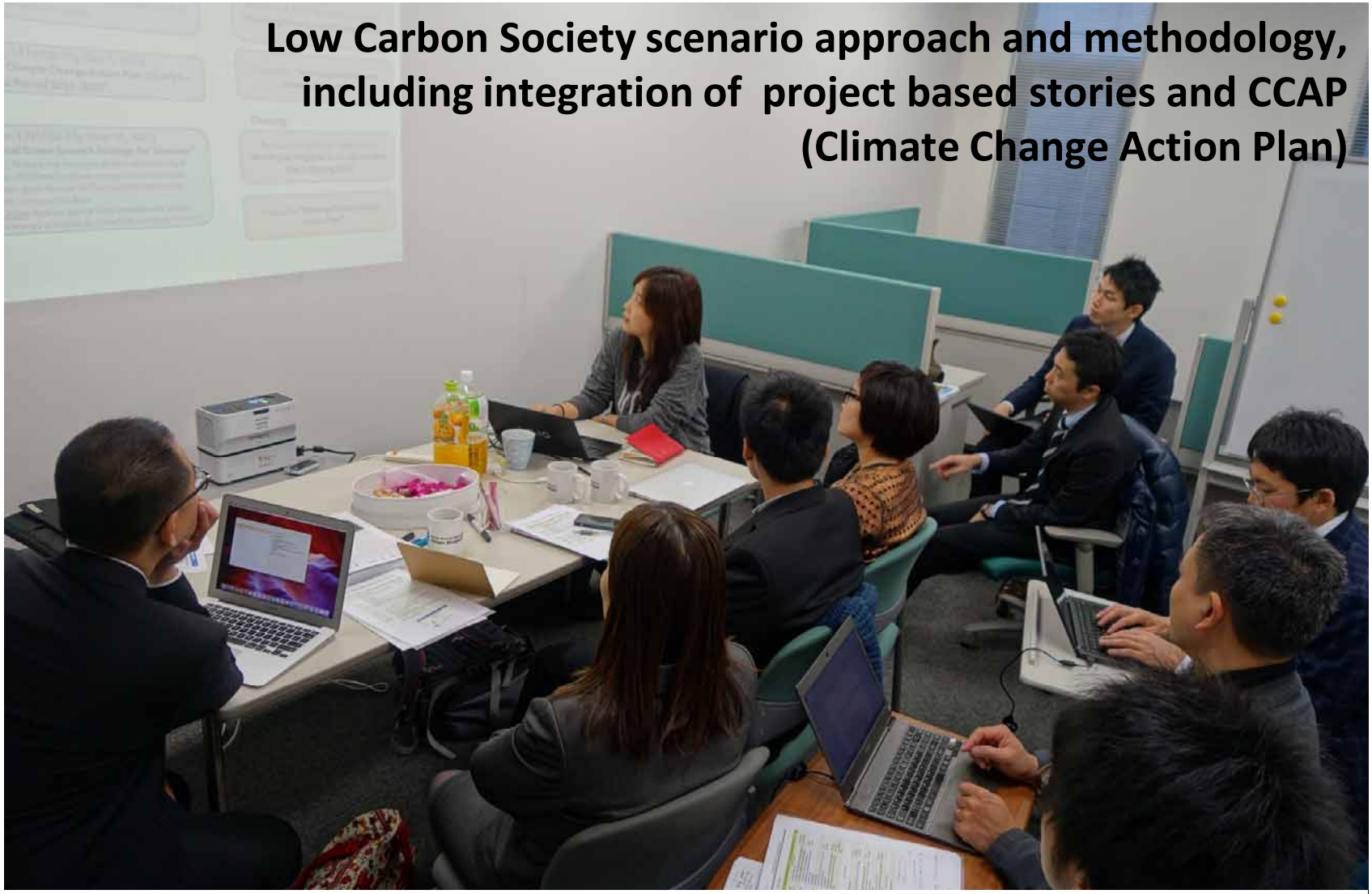
COP 19, Warsaw

COP 20, Lima

6th November 2013
The PM launched Actions for a Low Carbon Future during MoA

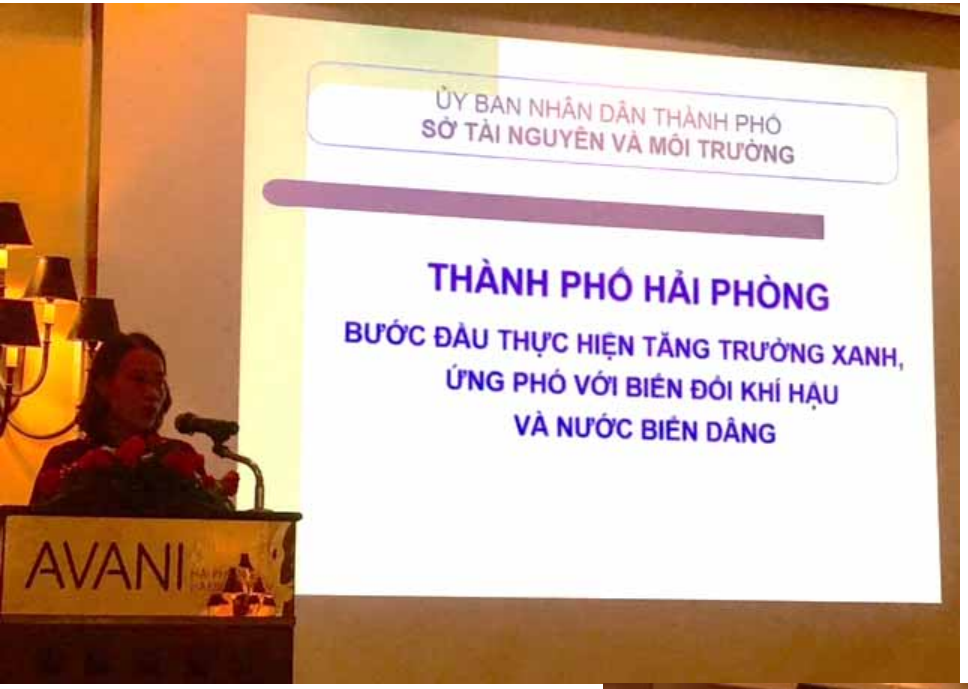
Know-How Transfer from Japan-Malaysia to Vietnam

Low Carbon Society scenario approach and methodology, including integration of project based stories and CCAP (Climate Change Action Plan)



Training program for Da Nang and Hai Phong cities
on 8th & 9th Dec 2015 in Kyoto University

Capacity Building Seminar on Low Carbon Planning in Hai Phong on 28th April 2016



Officer from DONRE,
Hai Phong City

Prof. Ho Chin Shiong
UTM

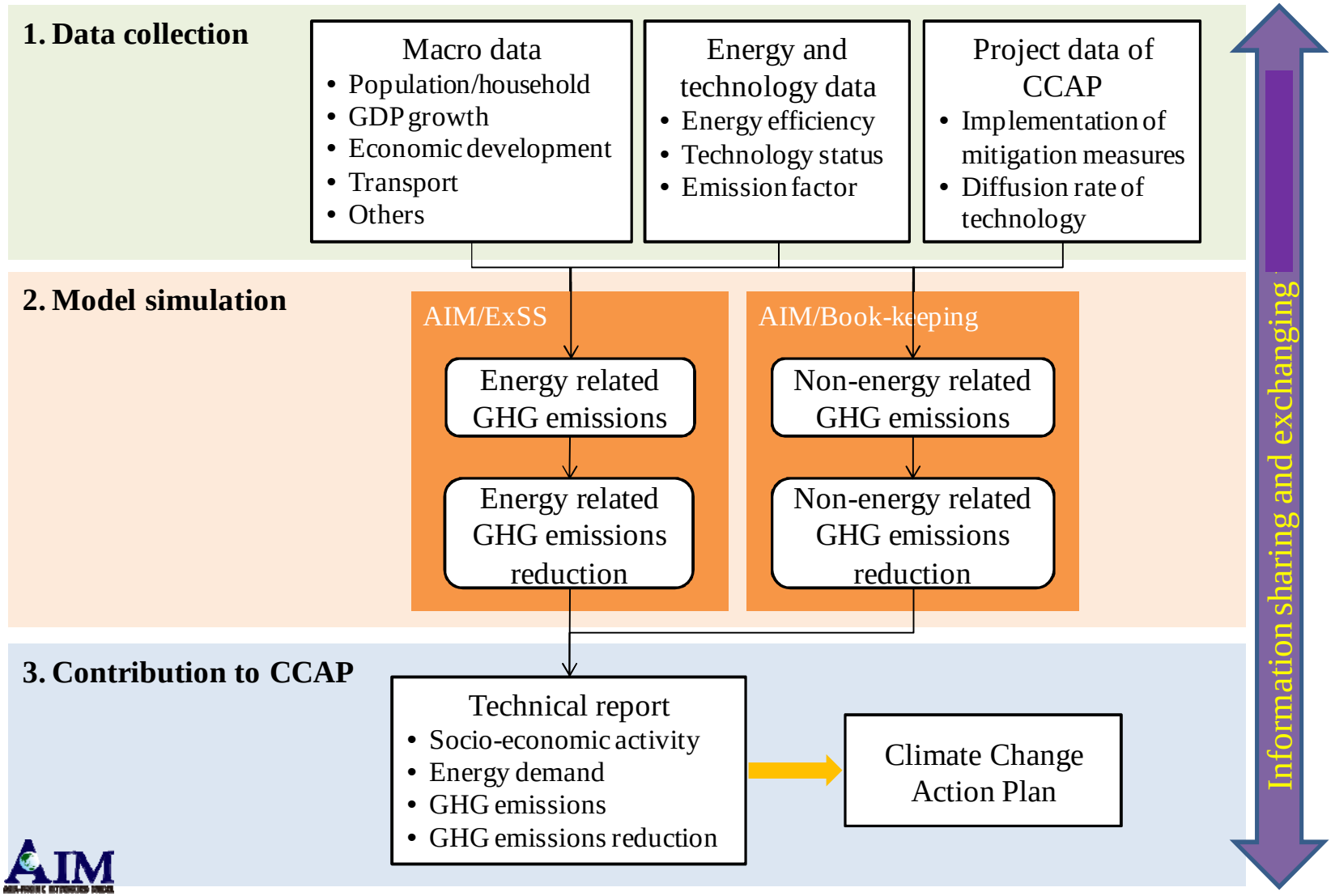
Dr. Luong Quong Huy
Director, MONRE


Nga
Quang
Hang
Tung


HẢI SẢN HÙNG BÉO

Low Carbon Society Scenario Workshop in Hai Phong on 13th Sep 2016

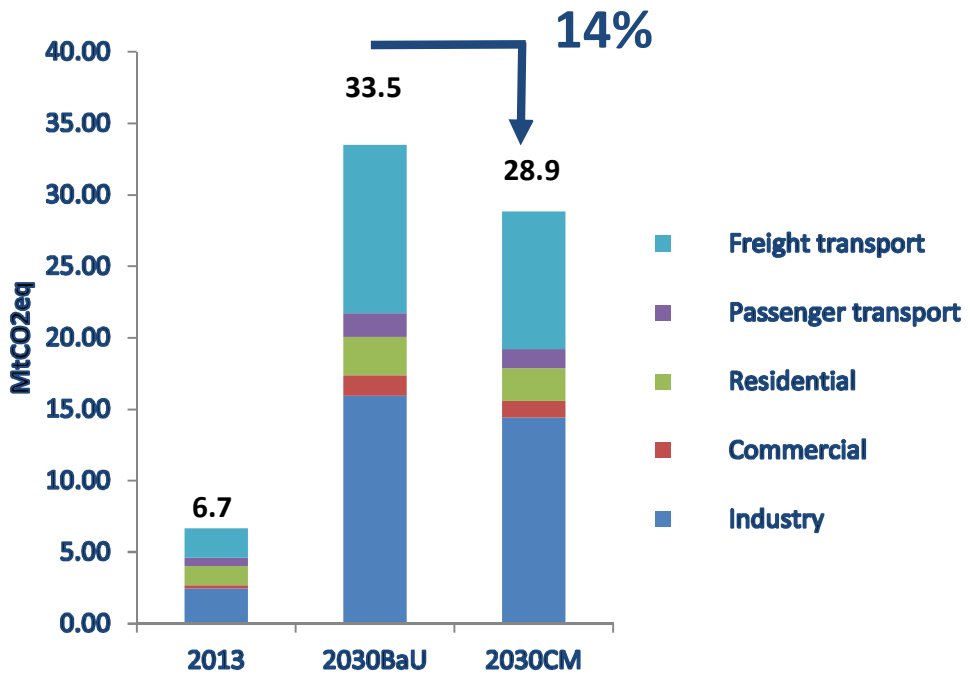
Methodology of LCS scenario development



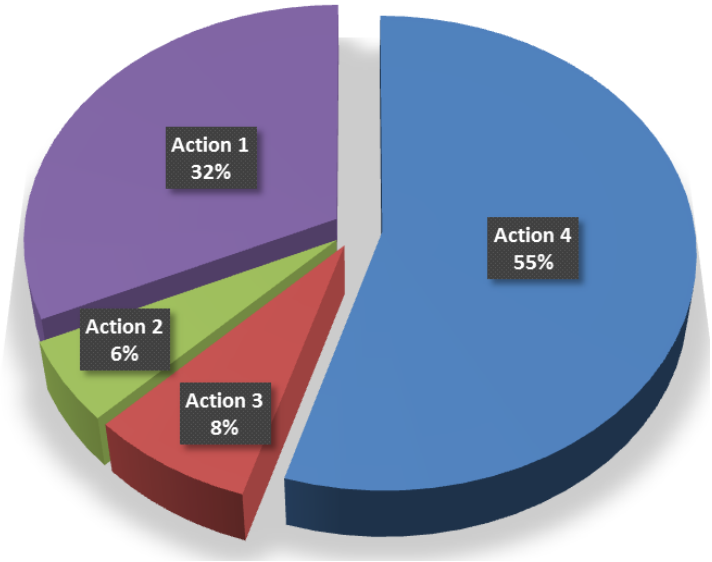
Socioeconomic indicator

	Unit	2013	2030	2030/2013
Population	persons	1,925,217	3,000,000	1.56
No. of households	households	553,406	1,000,000	1.81
GDP per capita	mil. Dongs	55	193	3.51
GDP	bil. Dongs	105,651	577,829	5.47
Outputs	bil. Dongs	282,310	1,595,478	5.65
Final consumption	bil. Dongs	67,644	369,309	5.46
Gross fixed capital formation	bil. Dongs	38,607	210,777	5.46
Export	bil. Dongs	111,247	607,360	5.46
Import	bil. Dongs	111,847	609,616	5.45

GHG emission and reduction

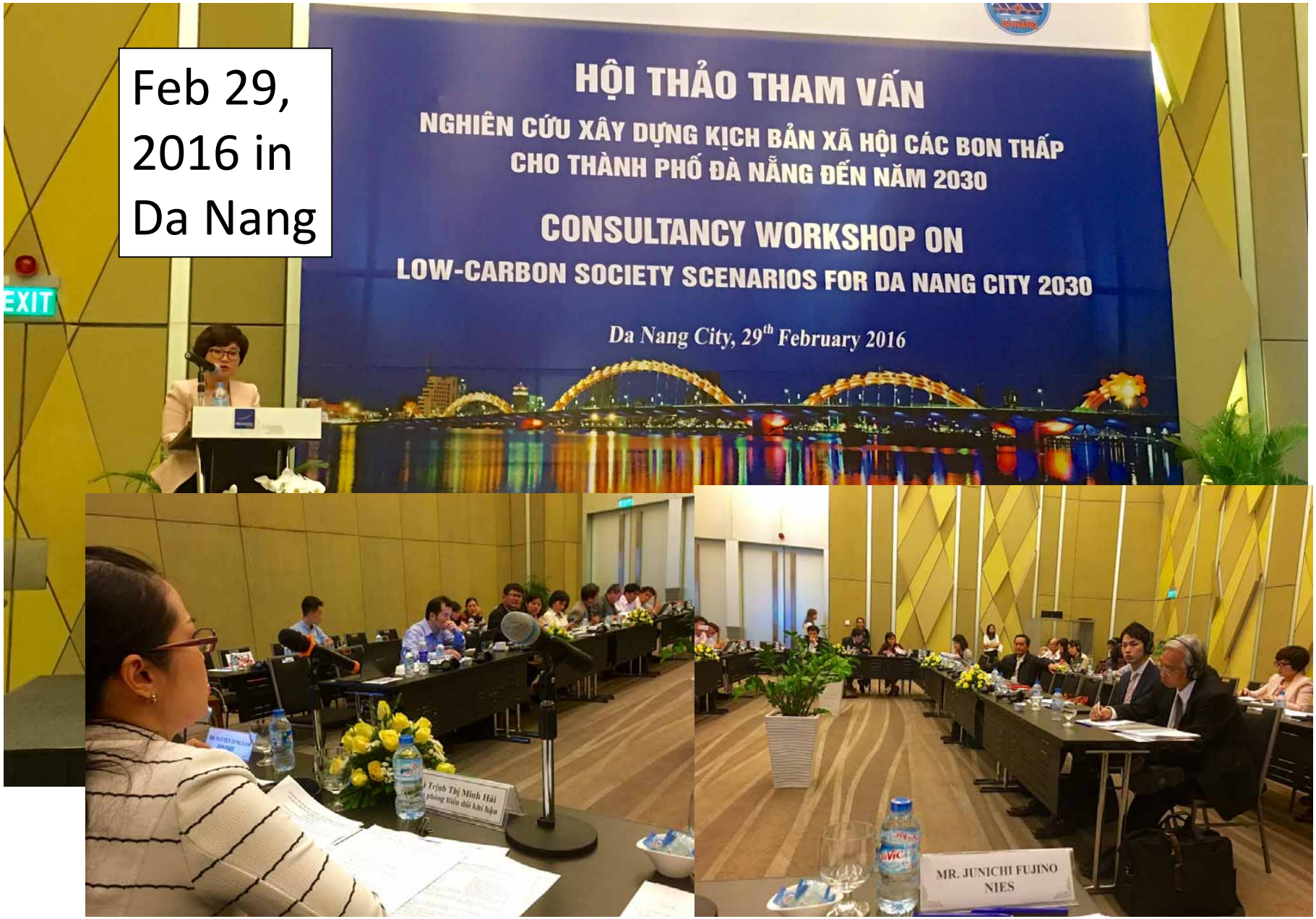


	Industry	Commercial	Residential	Passenger Transport	Freight Transport	**Total (ktCO2eq)**
Action 1. Green Industry Promotion of energy efficient equipment and fuel shift	1,477					**1,477**
Action 2. Green Building Diffusion of low-energy building (EMS, Insulation, Fuel shift)		199	63			**262**
Action 3. Energy Efficiency Promotion of energy efficient device/appliance		130	233			**363**
Action 4. Clean Transport Energy efficient vehicle and modal shift				284	2,257	**2,541**
Total (ktCO2eq)	**1,477**	**329**	**296**	**284**	**2,257**	**4,643**



Action		Project	Sector	Emission reduction ($ktCO_2eq$)
1 Green Industry	1-01	Energy savings in factory	Industry	601.9
	1-02	Installation high energy efficiency facilities (such as compressors and motors)	Industry	93.4
	1-03	Regional energy supply system	Industry	514.8
	1-04	Improvement of kiln and furnace technology	Industry	266.6
		Total		**1,476.8**
2 Green Building	2-01	Installation of insulated glasses to commetcial buildings	Commercial	19.5
	2-02	Installation of insulated glasses to households	Residential	35.5
	2-03	Introduction of incentive to low energy buildings	Commercial	3.5
	2-04	Introduction of insulating material to houses	Residential	13.4
	2-05	Energy efficiency technology applied to buildings	Commercial	9.7
	2-06	Introduction of solar water heater to commercial buildings	Commercial	44.5
	2-07	Introduction of solar water heater to households	Residential	102.4
	2-08	Introduction of photovoltaic power generation to commercial buildings	Commercial	29.2
	2-09	Introduction of photovoltaic power generation to households	Residential	4.2
		Total		**262.0**
3 Energy Efficiency	3-01	Energy savings in commercial facilities	Commercial	35.4
	3-02	Coversion of street lights to LED lighting	Commercial	3.2
	3-03	High efficiency lighting in commercial buildings	Commercial	43.0
	3-04	High efficiency lighting in households	Residential	36.4
	3-05	High efficiency air conditioners (such as air conditioners with inverter controllers) in commercial buildings	Commercial	22.7
	3-06	High efficiency air conditioners (such as air conditioners with inverter controllers) in commercial households	Residential	48.8
	3-07	Promotion of energy-efficient appliances (refrigerator and other appliances)	Residential	172.2
	3-08	Promotion of energy-efficient appliances (cooking appliances)	Residential	1.1
		Total		**362.8**
4 Clean Transport	4-01	Promotion of eco-driving with digital tachographs	Transport	169.7
	4-02	Smart trafic management	Transport	5.4
	4-03	Expansion of frequencies and routes of bus transportation	Transport	7.6
	4-04	Development of Bus Rapid Transit (BRT)	Transport	3.8
	4-05	Introduction of EV buses	Transport	7.8
	4-06	Introduction of electric motorbikes	Transport	39.9
	4-07	Promotion of energy-efficient vehicles (cars for passenger)	Transport	160.2
	4-08	Promotion of energy-efficient vehicles (motorbikes)	Transport	87.0
	4-09	Promotion of energy-efficient vehicles (trucks)	Transport	2,060.1
		Total		**2,541.3**
Total				**4,642.9**

Feb 29, 2016 in Da Nang

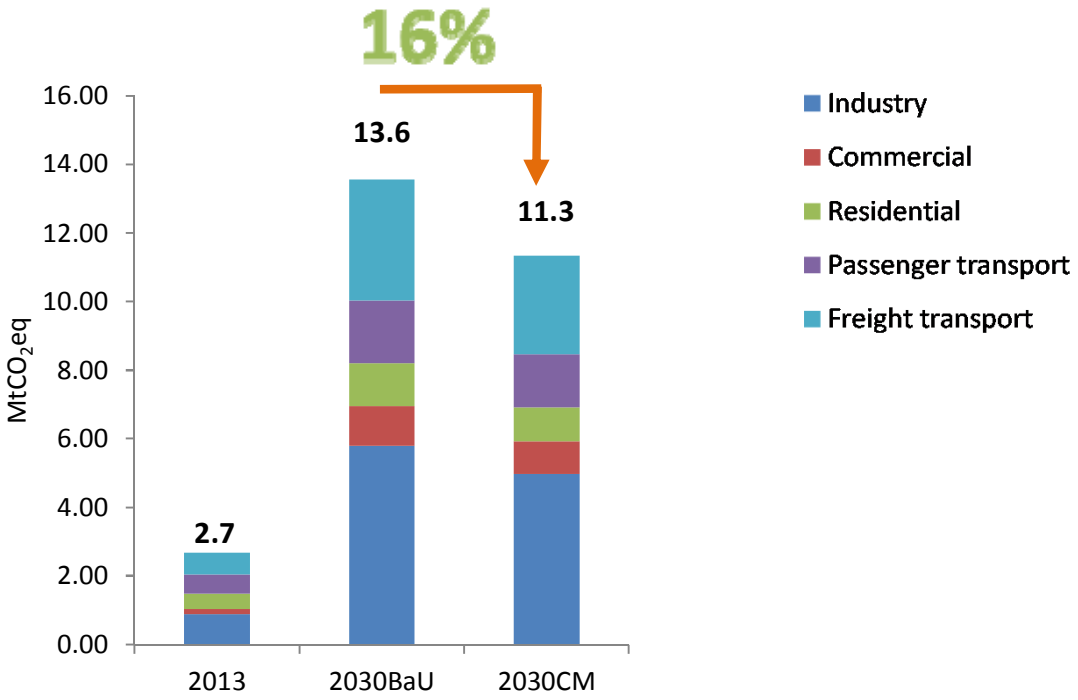


Sep 14, 2016 in Da Nang

Socioeconomic indicator

	Unit	2013	2030	2030/2013
Population	persons	992,849	2,533,190	2.55
No. of households	household	288,620	844,397	2.93
GDP per capita	mil. Dongs	52	117	2.26
GDP	bil. Dongs	51,624	297,542	5.76
Agriculture		529	2,620	4.95
Industry		17,831	100,813	5.65
Commercial		33,264	194,109	5.84
Outputs	bil. Dongs	124,446	715,160	5.75
Agriculture		821	4,066	4.95
Industry		55,592	314,093	5.65
Commercial		68,033	397,001	5.84
Final consumption	bil. Dongs	39,294	222,536	5.66
Gross fixed capital formation	bil. Dongs	25,895	146,657	5.66
Export	bil. Dongs	47,943	271,520	5.66
Import	bil. Dongs	61,508	343,171	5.58
Passenger transport demand	mil.per.km	8,642	26,770	3.10
Freight transport demand	mil.ton.km	2,563	14,201	5.54

GHG emission and reduction



5 actions towards LCC in Da Nang

Climate change actions	Industry	Commercial	Residential	Passenger Transport	Freight Transport	Total ($ktCO_2eq$)
Action 1. Smart Industry Promotion of energy efficient equipment and fuel shift	829					829
Action 2. Smart Building Diffusion of low-energy building (EMS, Insulation, Fuel shift)		55	51			106
Action 3. Energy Efficiency Promotion of energy efficient device/appliance		118	180			298
Action 4. Smart Transport Energy efficient vehicle and modal shift				301	653	954
Action 5. Green Energy deployment of renewable electricity		34	5			39
Total ($ktCO_2eq$)	829	207	235	301	653	2,226

	Action		Project	Sector	Emission reduction ($ktCO_2eq$)
1	**Smart Industry**	1-01	ESCO (Energy Saving COmpany) project for industries	Industry	225.8
		1-02	Installation high energy efficiency facilities (such as compressors and motors)	Industry	204.3
		1-03	Regional energy supply system	Industry	127.1
		1-04	Improvement of kiln and furnace technology	Industry	272.0
			Total		829.3
2	**Smart Building**	2-01	Installation of insulated glasses to commercial buildings	Commercial	6.6
		2-02	Installation of insulated glasses to households	Residential	7.0
		2-03	Introduction of incentive to low energy buildings	Commercial	2.1
		2-04	Introduction of insulating material to houses	Residential	28.6
		2-05	Energy efficiency technology applied to buildings	Commercial	5.7
		2-06	Introduction of solar water heater to commercial buildings	Commercial	18.9
		2-07	Introduction of solar water heater to households	Residential	36.8
			Total		105.7
3	**Energy Efficiency**	3-01	ESCO (Energy Saving COmpany) project for commercial buildings	Commercial	33.1
		3-02	High efficiency lighting in public lighting	Commercial	4.3
		3-03	High efficiency lighting in commercial buildings	Commercial	50.5
		3-04	High efficiency lighting in households	Residential	36.1
		3-05	High efficiency air conditioners in commercial buildings	Commercial	37.1
		3-06	High efficiency air conditioners in households	Residential	37.2
		3-07	Promotion of energy-efficient appliances	Residential	99.7
			Total		298.1
4	**Smart Transport**	4-01	Promotion of eco-driving with digital tachographs	Transport	46.6
		4-02	Wide-range traffic control	Transport	4.9
		4-03	Expansion of frequencies and routes of bus transportation	Transport	10.5
		4-04	Development of Bus Rapid Transit (BRT)	Transport	5.2
		4-05	Shift to CNG bus	Transport	11.9
		4-06	Introduction of electric motorbikes	Transport	62.6
		4-07	Promotion of energy-efficient vehicles (cars for passenger)	Transport	102.5
		4-08	Promotion of energy-efficient vehicles (motorbikes)	Transport	143.5
		4-09	Promotion of energy-efficient vehicles (trucks)	Transport	566.2
			Total		954.0
5	**Green Energy**	5-01	Introduction of photovoltaic power generation to commercial buildings	Commercial	32.4
		5-02	Introduction of photovoltaic power generation to households	Residential	4.6
		5-03	Introduction of small-scale hydropower generation (at water distribution stations)	Commercial	1.6
			Total		38.7

From Planning to Implementations

LCS planning and implementation in cities

- AIM supports to develop LCS planning using our quantitative GHG mitigation simulation methodology first.
- Then Putrajaya and Iskandar Malaysia are trying to design administrative implementation program to realize green cities in their jurisdictions.

LCS Planning

through quantitative approach

- GHG Emission & Reduction
- LCS Policies & Actions

Putrajaya

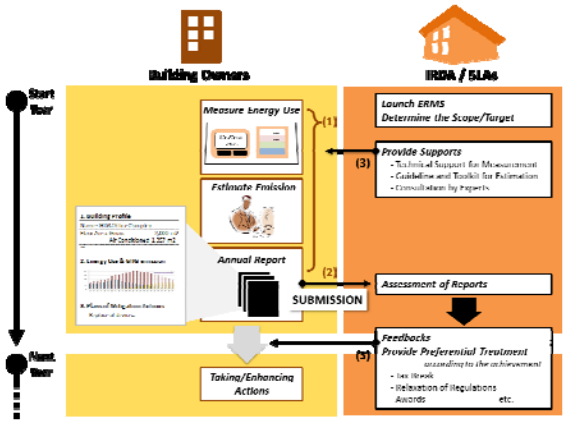
Iskandar

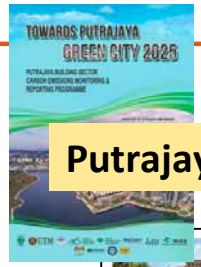
Next Stage

Implementation

through **practical program design**

- Monitoring
- Evaluation & Modification of the Policy



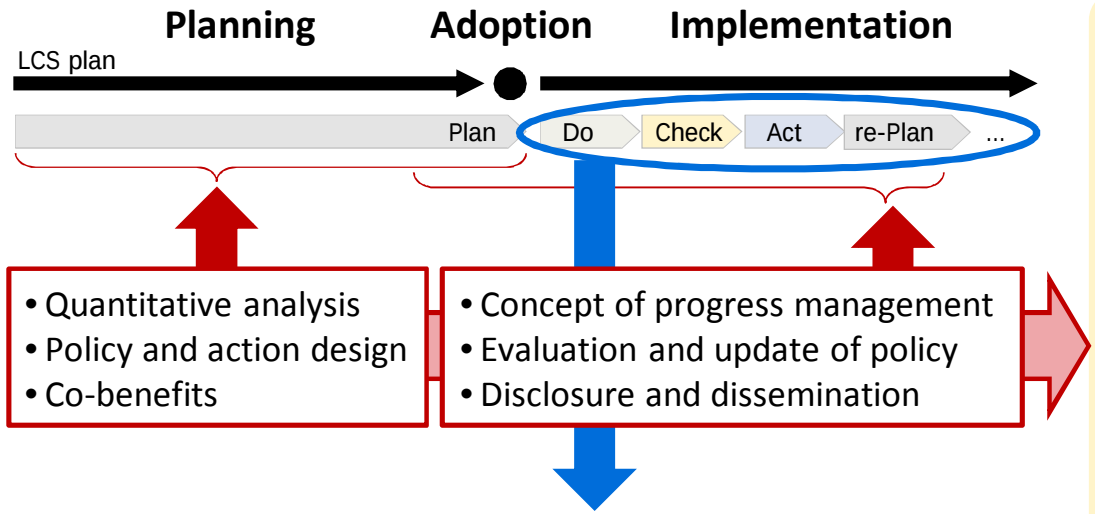


Putrajaya

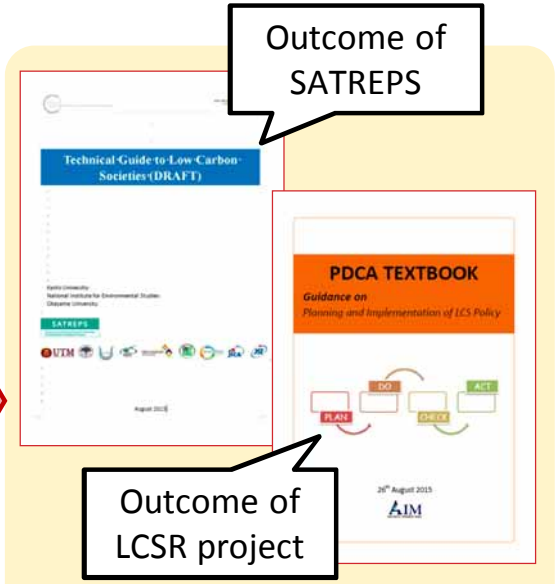
Iskandar

PDCA process of LCS policy

- AIM team is making documents which explains PDCA process of LCS policy. Expected user is policy makers and researchers in Asian region.
- Those documents include processes of monitoring, evaluating and reviewing of LCS policy as well as methodology for planning.



Assistance for designing practical program and arrangements for implementation



Utilized as textbooks of training sessions

Best Practice in Tokyo

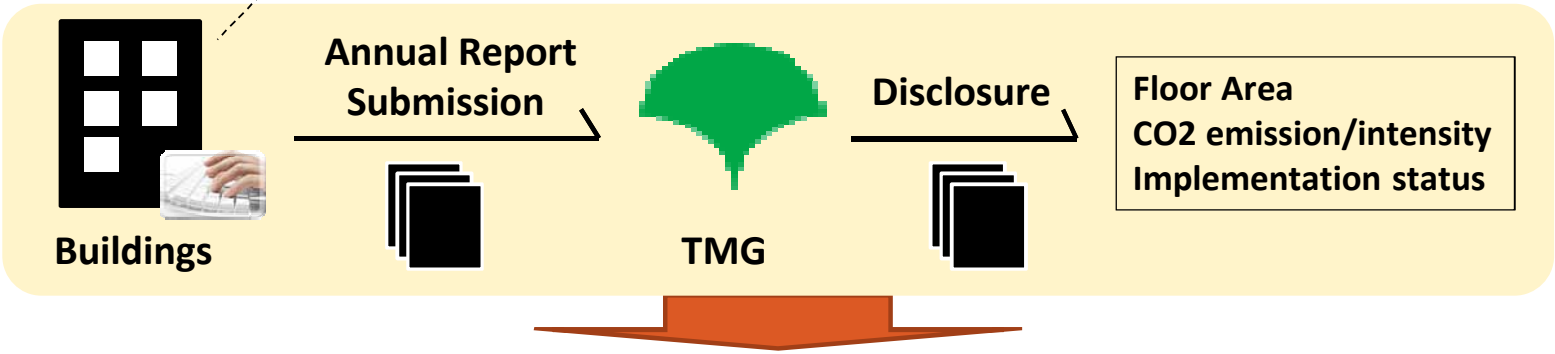
- Tokyo Metropolitan Government (TMG) has operated Carbon Reduction Reporting Program for mid-small scale buildings, which aims to enhance mitigation actions.
- The program asks buildings to monitor and report their CO2 emission as well as mitigation actions taken by owners and/or tenants.

1. Energy Consumption and CO2 Emission in Previous FY

- Calculate CO2 emissions from previous FY's fuel, energy, electricity, water and sewerage use

2. Mitigation Actions Taken in Previous FY

- Choose measures taken from 255 option menu which has been categorized by TMG



Continuous Efforts on the Global Warming Measures

- Realize continuous understanding/management of energy consumption
- Continuous efforts and improvement on the global warming measures

CO2 Emission Reduction (10% reduction has achieved)

LCS implementation:
Transfer Knowledge from Tokyo to Malaysia

- Collaborative team comprised by UTM (University Technology Malaysia)/TMG (Tokyo Metropolitan Government)/AIM transfers the building monitoring and reporting program which initiated by TMG.
- We works together with Putrajaya Corporation (PJC) and Iskandar Region Development Authority (IRDA).
- Trainings, workshops and intensive discussions many times among both cities' staffs, TMG's staffs and experts have been conducted so far.


Training in TMG


Training in TMG


Site Visit in Putrajaya building

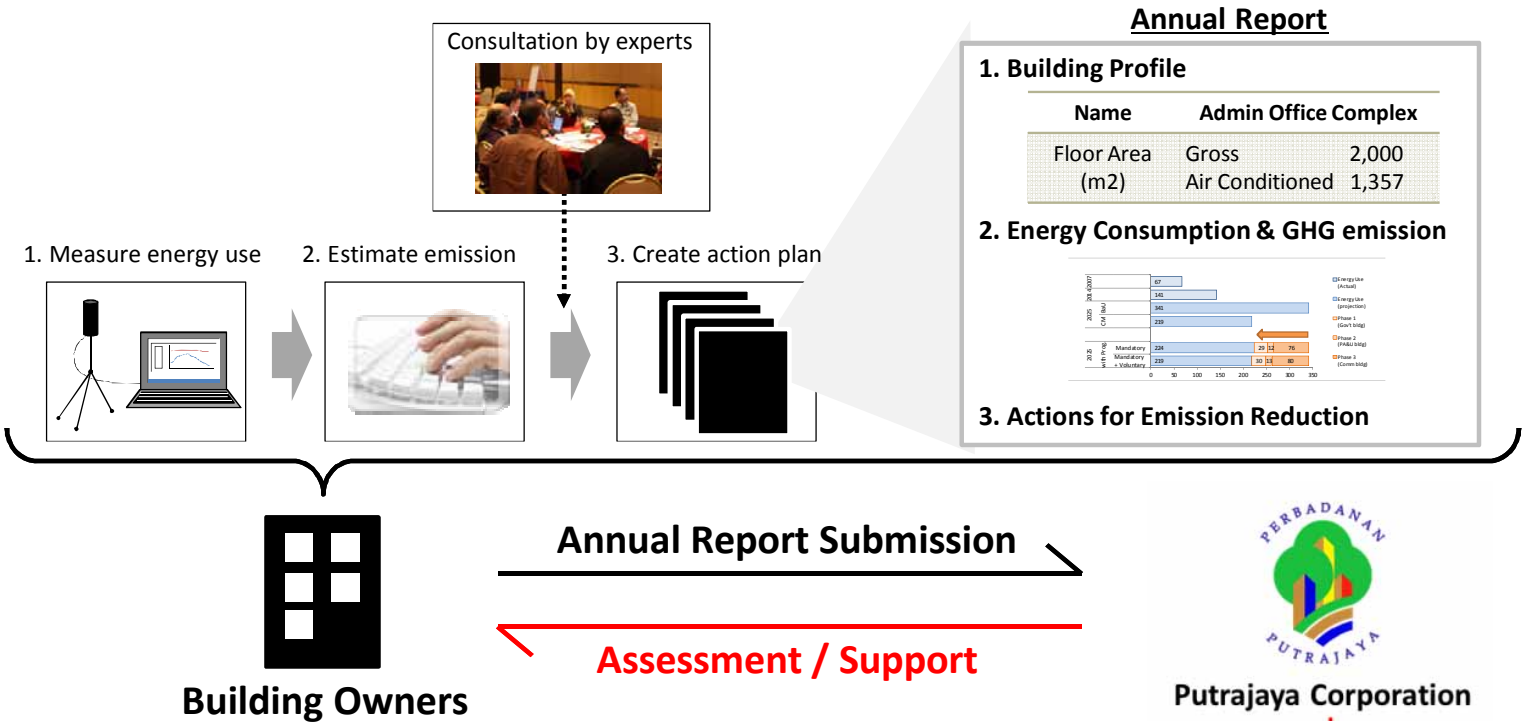

Workshop in Iskandar Malaysia


Discussion in PJC

Proposed Scheme (1/2)

Putrajaya

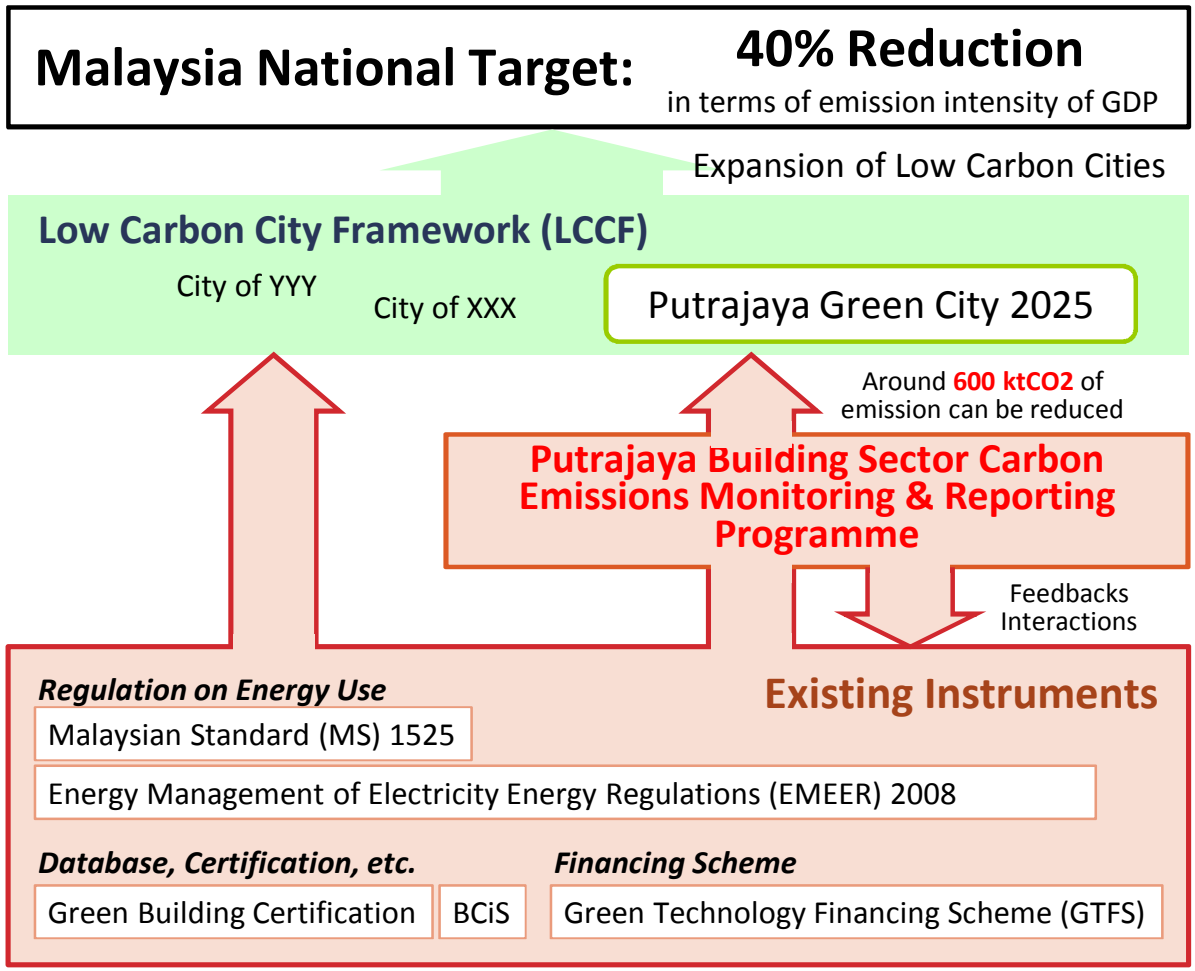
- Buildings are required to submit report including energy consumption, GHG emission and action plan for reducing their emission.
- The participating entities can receive feedbacks and support from the authority.



Proposed Scheme (2/2)

Putrajaya

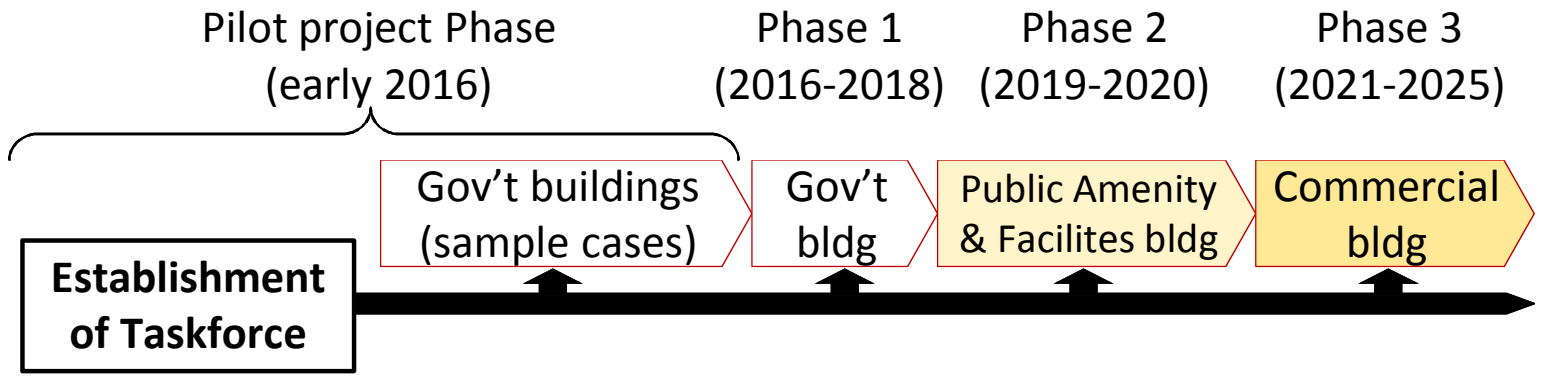
- The proposed scheme is an additional instrument to enhance the function of existing instruments for enhancing low carbon cities in Malaysia.



Expected Impacts of the Programme

Putrajaya

- In order to introduce the programme smoothly, the target buildings shall be expanded gradually.
- Expected impacts are estimated according to Putrajaya Green City 2025. (abt 600 ktCO2 emission reduction at maximum; amounting to abt MYR 450 (US$ 100) million in saving through the reduction in energy use.)



Putrajaya Corporation

amounting to about **MYR450 (US$ 100) million** in saving through the reduction in energy use

City Networking

G7 Toyama Environment Ministers' Meeting Parallel Session

The Role of Cities

May 15, 2016, Toyama, Japan

Speakers:

City of Firenze, **Italy**
City of Vancouver, **Canada**
City of Vitry-le-François, **France**
City of Bristol, **United Kingdom**
100RC, GEF, ICLEI,
Promotion Committee for the "Future City" Initiative
City of Frankfurt am Main, **Germany**
City of Higashimatsushima, **Japan**
City of Kitakyushu, **Japan**
City of Toyama, **Japan**

Co-chairs:

Mr. Masashi Mori Mayor, Toyama City, Japan
Prof. Hironori Hamanaka Chair, Board of Directors, IGES

The Role of Cities –
Key Messages from G7 Toyama Environment Ministers' Meeting Parallel Session
Wednesday 13 July, ISAP2016, Pacifico Yokohama

This is the first time for group of Mayors directly to brief to G7 Environmental Ministers' Meeting.

Main messages from Co-Chairs' summary

- *Recognizing, supporting and showcasing the advanced efforts by leading cities making the transition to sustainable societies*
- *Promoting networks of leading cities and encouraging successive cities to be involved*
- *Mainstreaming the role of cities*

Co-Chair's summary will be shared at any other appropriate opportunities, such as the 2nd United Nations Environment Assembly on May 23-27, 2016 in Nairobi, HABITAT III on 17-20 October 2016 in Quito and its preparatory processes.

All materials can be downloaded from the following website;
http://www.iges.or.jp/en/pmo/20160515.html

MOU Signing Ceremony at Toyama City Hall (from left to right: Dr. Fujino and Prof. Hamanaka, IGES, Mayor Mori, Toyama City; Ms. Yee, Dr. Runzo-Inada and Mr. Horng Dar Lim, 100RC)

May 15th 2016, Toyama

Announcement

IGES and Rockefeller Foundation Sign Memorandum of Understanding on the Sidelines of the G7 Environment Ministers' Meeting in Toyama, Japan

31 May 2016

The honourable Mayor of Toyama City, Masashi Mori, hosted a signing ceremony at City Hall to formalise a collaboration agreement between the Institute for Global Environmental Strategies (IGES) and 100 Resilient Cities –

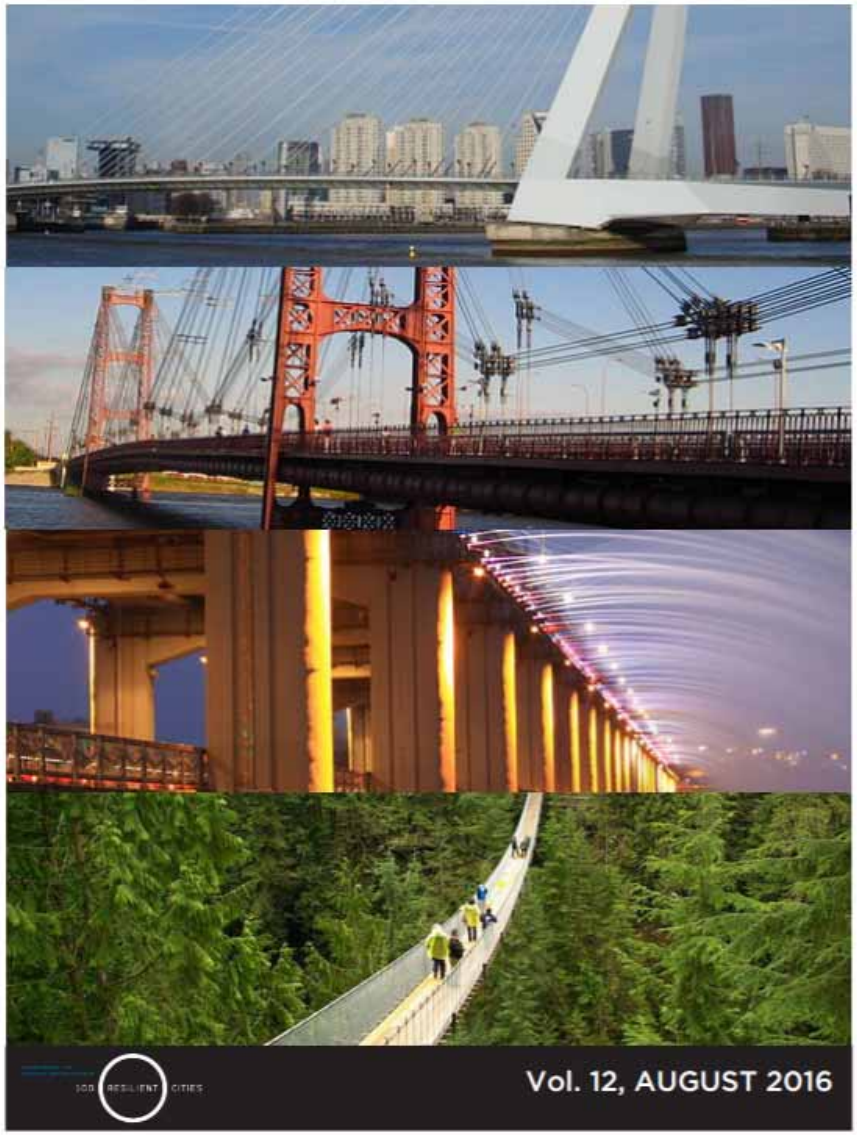


Table of Contents

On the cover, from top: Erasmus Brug, Rotterdam (F.Eveleens/Wikimedia Commons); Puente Colgante, Santa Fe (Giulianaesmeralda, Wikimedia Commons); Jamsu Bridge, Seoul (Photo and Share CC/Flickr); Capilano Bridge, Vancouver (David J Laporte/Flickr).

Institutionalization and Implementation

Semarang

Kick-Off Workshop for Co-Benefit Study in Transportation Sector

The Kick-Off Workshop for the Co-Benefit Study in the Transportation Sector for Semarang was held on July 28th, 2016 at the Grand Edge Hotel. The meeting was the initial workshop for the strategy implementation phase of Semarang's resilience-building program. It was attended by 29 participants from local governments, academia, non-governmental organizations (NGOs), the Institute for Global Environmental Strategies (IGES)-Japan, and the Asian Institute of Technology (AIT)- Thailand, as well as community members. The workshop was designed to enhance communication and cooperation with local stakeholders as part of the preperations for the implementation of Semarang's Resilience Strategy.

Semarang released its Resilience Strategy on May 23rd, 2016. Integrated mobility is one of the six strategic pillars underpinning Semarang's strategy. To implement the integrated mobility pillar, Semarang is seeking to make public transportation facilities more compatible with the needs of disabled people as well as environmentally sustainable. The Ministry of the Environment, Japan (MOEJ) is funding a study as the first step towards achieving this goal. *(Continues on next page)*

Below: Dr. Junichi Fujino, IGES Japan

Kitakyushu

HCMC

Osaka

CDIA

Fujino

Clean Air Asia

JICA

Bernadia, UCLG-ASPAC

A4. "Better City-to-City Cooperation" session at 7th High Level Seminar on Environmentally Sustainable Cities 4th March, 2016 in Hanoi

8th seminar Will be held in Thailand, March 2017

ISAP2016

7/12-13
Pacifico Yokohama
2016

Translating Knowledge into Actions
towards 2030 and beyond

International Forum for Sustainable Asia and the Pacific

Home Programme Watch Video Access 日本語

City Champions: Leveling and Scaling-up Transformative Sustainability Innovations

ISAP2017 will be held in Yokohama, July 2017

The operationalisation of Sustainable Devel… Goal 11 (Sep 2015), the signing of the Paris Agreement (Dec 2015) and the formulation of a New U… urban sustainability centre stage in 2016.

High rates of urbanisation as well as financial stresses and human resource constraints are amongst the major challenges cities in the Asia-Pacific region face. On the other hand, the decentralisation of government functions is empowering a new generation of city leaders to access creative finance, emulate good practices and achieve leapfrog development by means of low-carbon technology. The Parallel Session seeks to:

1. Showcase and inspire cities to develop new / adopt existing solutions to key sustainability challenges through the introduction of good practices from leading cities.
2. Illustrate how intercity learning approaches can be leveled and scaled up, by showcasing a successful partnership.
3. Highlight how new training programmes to globally disseminate leading urban initiatives can connect

»Download (773KB)

Moderator IGES Urban WB Tokyo Bangkok Yokohama FutureCity

Low Carbon Asia Research Network

LoCARNet

Toshihiko MASUI
Japan

Junichi FUJINO
Japan

Mikiko KAIMUMA
Japan

Tae yong JUNG
ROK

Ucok Wrsiagian
Indonesia

Retno Gumilang Dewi
Indonesia

Damasa Macandog
Philippines

Bundit LIMMEECHOKCHAI
Thailand

Srintonthep Towprayoon
Thailand

Rizaldi BOER
Indonesia

Ho Chin SIONG
Malaysia

Priyadarshi SHUKLA
India

Jiang Kejun
China

Hak Mao
Cambidia

Nguyen Tung Lam
Vietnam

Next LoCARNet Workshop In Bandung, 25-26 October!

IPONRE Viet Nam

NIES JAPAN

国家发展和改革委员会能源研究所
Energy Research Institute National Development And Reform Commission

IGES
Institute for Global Environmental Strategies

JGSEE
The Joint Graduate School of Energy and Environment

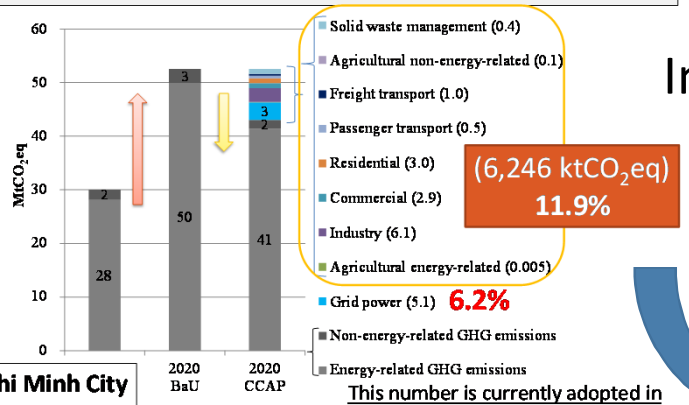
UTM
UNIVERSITI TEKNOLOGI MALAYSIA

LCS scenarios in Asia

Identify GHG Reduction Potential and Necessary Actions

HCMC LCS Scenario towards 2020

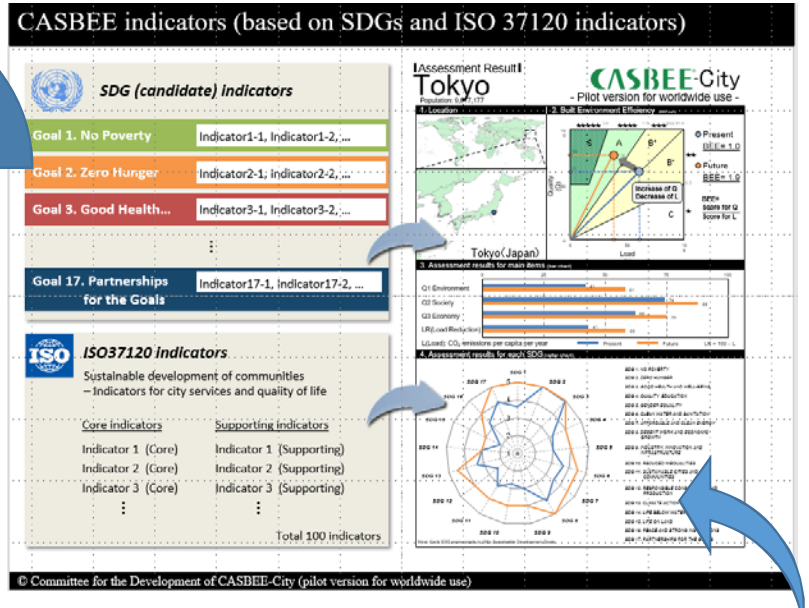
- By the 2020 CCAP scenario, the GHG emission reduction is 19.1% of total emission of Business as Usual (2020BaU) (including 6.2% reduction is expected from the mitigation of grid power)



Ho Chi Minh City Vietnam

This number is currently adopted in HCMC Climate Change Action Plan 2016-2020 toward 2030

City Diagnosis by Q and L using CASBEE



Transfer Implementation Know-how To Asia

LCS implementation: Transfer Knowledge from Tokyo to Malaysia

- Collaborative team comprised by UTM (University Technology Malaysia)/TMG (Tokyo Metropolitan Government)/AIM transfers th building monitoring and reporting program which initiated by TMG.
- We works together with Putrajaya Corporation (PJC) and Iskandar Region Development Authority (IRDA).
- Trainings, workshops and intensive discussions many times among both cities' staffs, TMG's staffs and experts have been conducted so far.

2030 Agenda, Sep 2015

Create applicable show-case and scale up!

Like star wars, explore more masters and train LCS/SDGs knights!