



ISAP2014

The Sixth International Forum for
Sustainable Asia and the Pacific

Case of Malaysia

Iskandar Malaysia and the plan for research approach and network on low carbon cities



SCIENCE INTO POLICY- LOW CARBON GREEN CITY

SATREPS

Science and Technology Research Partnership
for Sustainable Development Program

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Project for Development of Low Carbon Society Scenarios for Asian Regions

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Content- Structure of Presentation

Background

- Urban problem and low carbon solution policy in Malaysia

Challenges
And
Solution

- Research approach network on low carbon cities

LCS
Malaysia

- Low Carbon Society Blueprint for Iskandar Malaysia
- Solution- 12 actions

ISSUES AND CHALLENGES



Rapid urbanization and industrialization



**Relatively high carbon intensity
dependence on fossil fuel (fuel subsidy)**



High Private car ownership



**Low density development and urban
sprawl**



**Low efficiency appliances and low
usage of renewable energy.**

URBAN PROBLEMS and Low carbon SOLUTIONS – Physical planning

Material and Energy



Mobility and Green



URBAN PROBLEMS and Low carbon SOLUTIONS – Socio-economic

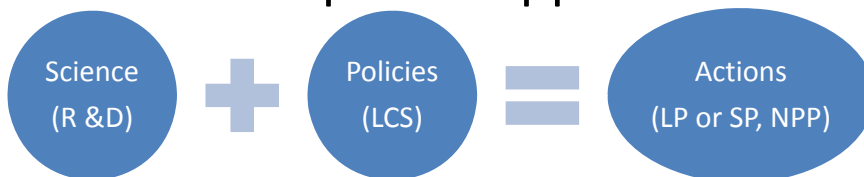
Social/ People



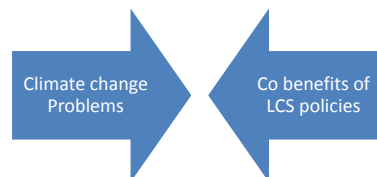
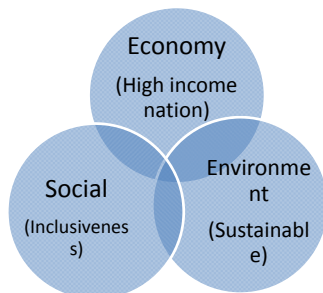
Economy/ Engine of Growth



Low carbon sustainable development approach



Key element Sustainable development = PRO GROWTH, PRO JOB , PRO POOR and PRO ENVIRONMENT



Low carbon society and sustainability in Malaysia ?

Rationale

- **National Agenda** 40% CO₂ intensity reduction
- Climate change and **sustainability policy issues are embedded** in all spatial planning policies (NPP/ RS/LP)
- Local authorities/Urban planning **enhances sustainable urban structure** (compact city / TOD / SWM/green and blue infrastructure and can promote LCS lifestyle
- **More Eco-friendly home buyers** demand green integrated neighborhood, infrastructure and buildings
- **Fulfill roles to reduce vulnerability** on disasters (flood) and promote comfort and safety.

Why LCS cities?



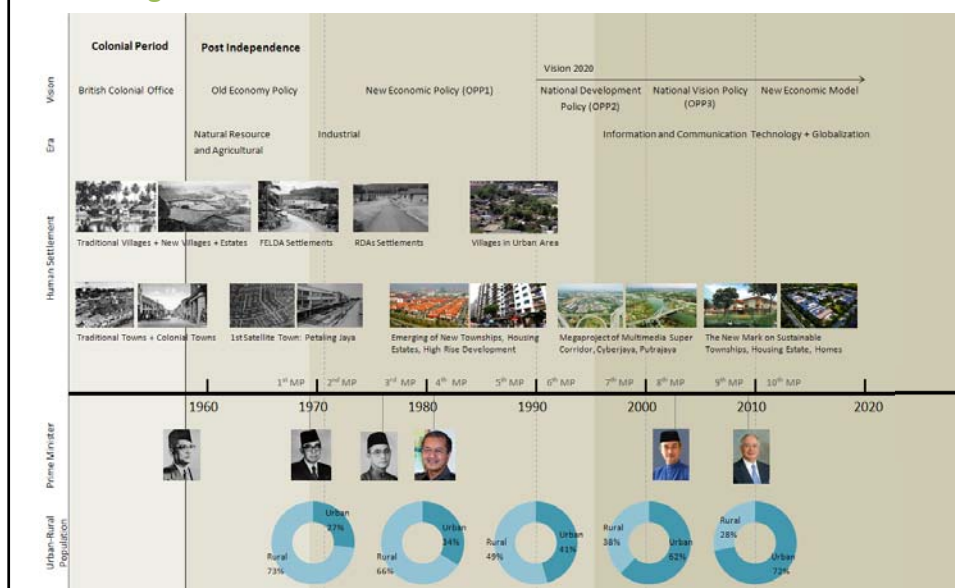
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Malaysian Low Carbon Cities

DATUM: KL
Kuala Lumpur Architecture Festival 2011

2 Sustainable Development in Malaysia

Moving Towards Sustainable Human Settlement



2 Sustainable Development

Low Carbon Frameworks



Source: Carbon Dioxide Information A

Frameworks

United Nations Climate Change Conference (COP 15), Malaysia committed to reduce 40% carbon emission intensity

Malaysia Plan, Economic Transformation Program, National Policy on Climate Change, National Green Technology Policy, National Policy on the Environment, NPP NUP etc

State Structure Plan, Regional Plan, Economic Region Master Plan

Local Plan, Low Carbon Cities Framework and Assessment System

GBI Township Tool

Green Neighbourhood Planning Guideline

Green Building Index, Energy Efficiency in Building Guidelines, Design Strategies for Energy Efficiency in New Buildings (Non-Domestic), Malaysia Industrial Energy Audit Guidelines, Energy Efficiency and Conservation Guidelines for Malaysian Industries

Malaysian Outlook

The CO₂ emission per capita and emission intensity of selected countries in 2010

Countries	Emission per capita tones of CO ₂ per capita	Emission Intensity tones of CO ₂ per US\$1000 of GDP
World	4.35	0.73
United States	19.1	0.5
Singapore	9.8	0.3
Japan	9.7	0.2
United Kingdom	8.6	0.3
Malaysia	6.7	1.3
China	4.6	2.5
Thailand	3.5	1.3
Indonesia	1.7	1.6
India	1.2	1.7

The 10th Malaysian Plan (2011-2015) has outlined 2 major National Policies on **Environmental Protection and conservation** :

National Green Technology Policy

- Emphasizes on Sustainable development, development of roadmaps to guide the application of green technologies & establishment of Green Tech Financing Scheme.

National Climate Change Policy

- Coordinate and streamline policy & legislations, stashed inter-ministrial and cross sectoral committee to facilitate and identify options and strategies to achieve a low carbon economy.

Green Neighborhood Guidelines – JPBD 2010

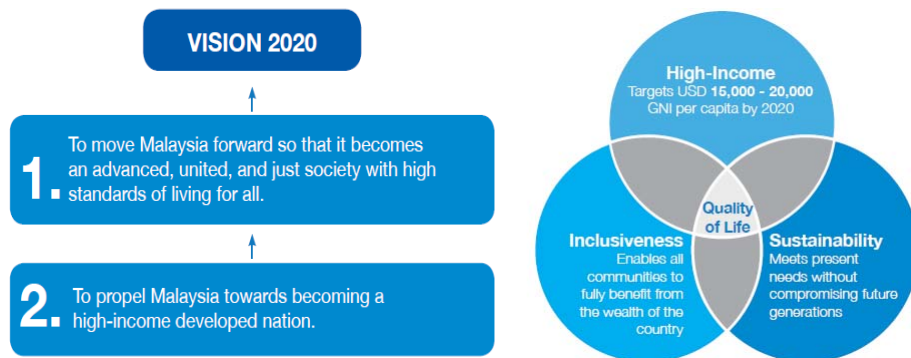
-Smart location, Neighbourhood pattern and design, Green Infrastructure

Green Township Framework

-LCCF Guide Towards LC Cities 2012- Kettha/MIP

Malaysia: Towards developed nation status

New Economic Model for Malaysia



Source: PEMANDU

1 MALAYSIA CHARTING DEVELOPMENT

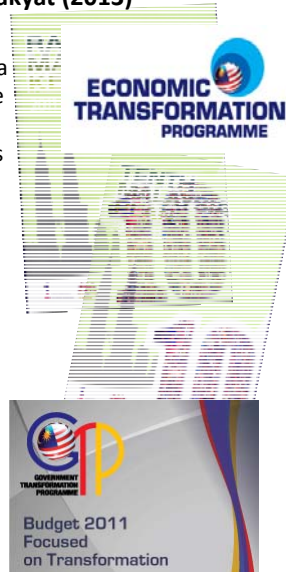
ISSUES AND VISION

TOWARDS A HIGH INCOME NATION – National Transformation Policy (2012) and Prospering the Nation and Enhancing well being of rakyat (2013)

- The 2013 budget in line precedent goals on rakyat's welfare and nation's well being, aim to position Malaysia as a **developed and high-income economy** with inclusive and sustainable development, will continue to ensure that the **most conducive socio-economic environment** is created through the **Government Transformation Programme (GTP)** to underpin growth focusing on **Welfare for rakyat, Well Being of the nations**

The 10th Malaysia Plan

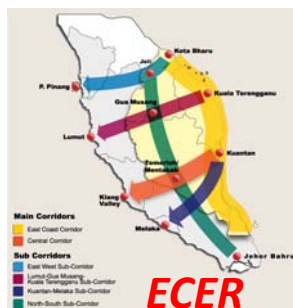
- Building an environment that **enhances Quality of Life**
- New urbanism and compact city**
- Growth concentrated in **urban conurbation**
- Safe city** initiatives
- Developing climate resilient growth** policy
- Adaptation measures
- Mitigation measures
- Incentives for **RE and EE**
- Improving **Solid waste management**
- Conserving forest
- Reducing **emission to improve air quality**



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- THE CASE OF ISKANDAR MALAYSIA

MALAYSIA: KEY ECONOMIC DEVELOPMENT CORRIDORS



BACKGROUND



01 Low Carbon Society Scenarios for Iskandar Malaysia

Project Background



Objective:

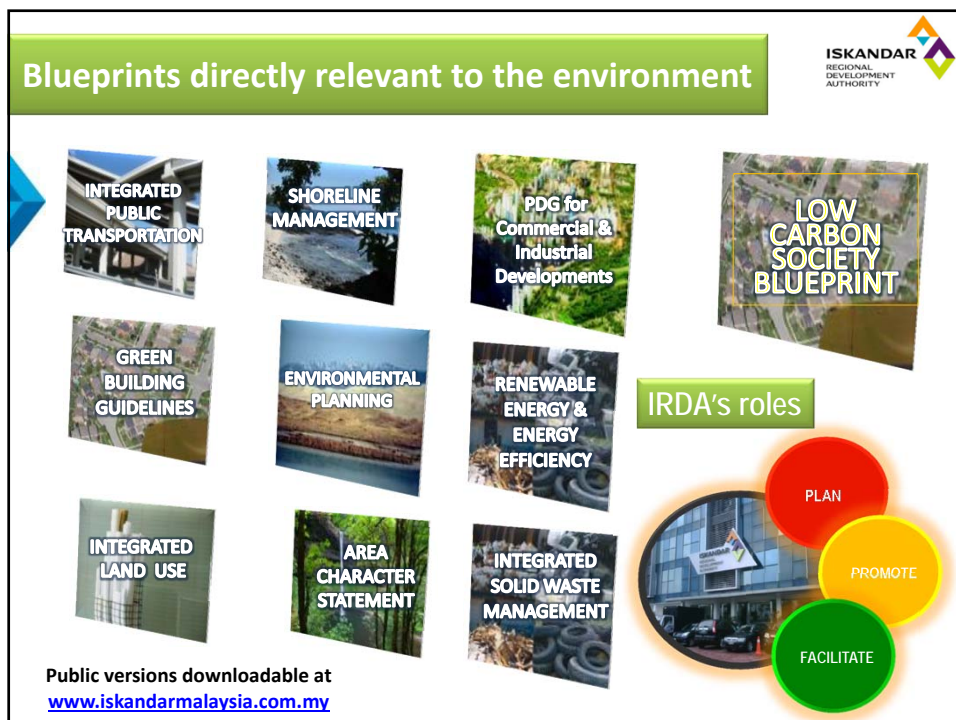
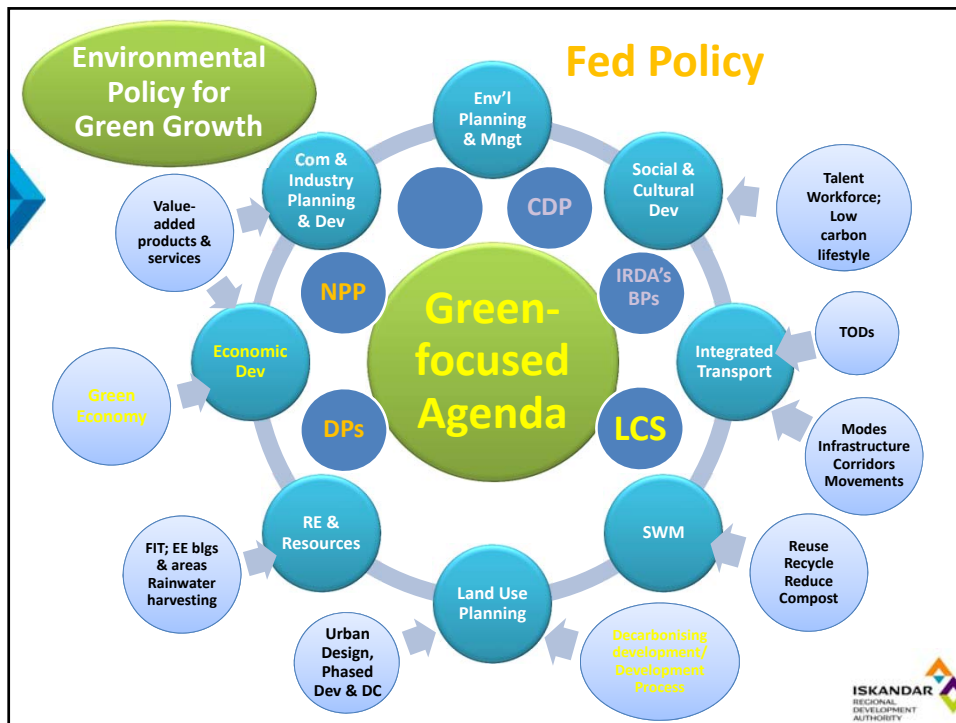
i. To draw up **key policies and strategies** in guiding the development of Iskandar Malaysia in **mitigating carbon emission**. *Transforming Iskandar Malaysia into a sustainable low carbon metropolis by adopting green growth strategies/roadmap.*

ii. To respond to the nation's aspiration for **ensuring climate-resilient development for sustainability**.

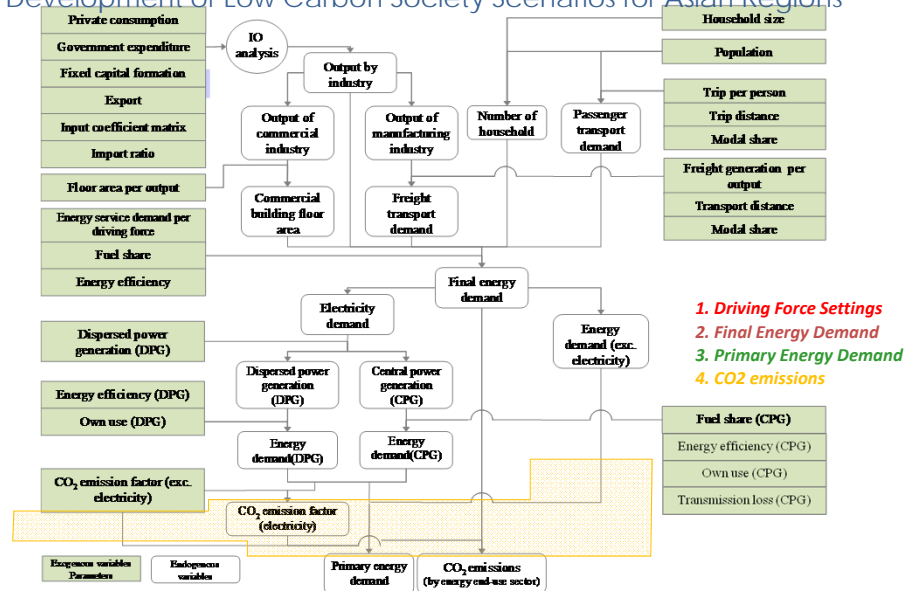
Target Year: 2025 (2005 – 2025)

Iskandar Malaysia at a Glance





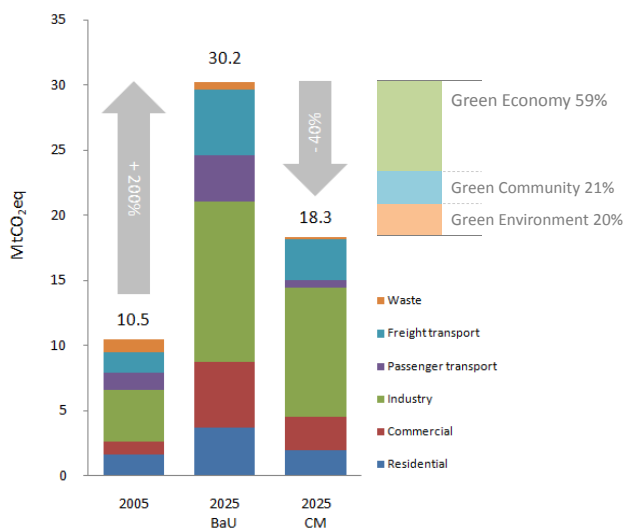
CO₂ Emission Modeling – Development of Low Carbon Society Scenarios for Asian Regions



COP 18 Side Event . Doha . 30 November 2012

04 Potential Mitigation Options for Iskandar Malaysia

Green Economy, Green Community and Green Environment



04 Potential Mitigation Options for Iskandar Malaysia

12 Actions Towards Low Carbon Future

Mitigation Options	CO2 Reduction	%
Green Economy	7,401	59%
Action 1 Integrated Green Transportation	1,916	15%
Action 2 Green Industry	1,085	9%
Action 3 Low Carbon Urban Governance**	-	-
Action 4 Green Building and Construction	1,338	11%
Action 5 Green Energy System and Renewable Energy	3,061	24%
Green Community	2,557	21%
Action 6 Low Carbon Lifestyle	2,557	21%
Action 7 Community Engagement and Consensus Building**	-	-
Green Environment	2,510	20%
Action 8 Walkable, Safe and Livable City Design	264	2%
Action 9 Smart Urban Growth	1,214	10%
Action 10 Green and Blue Infrastructure and Rural Resources	620	5%
Action 11 Sustainable Waste Management	412	3%
Action 12 Clean Air Environment**	-	-
Total	12,467**	100%

Launching of the LCSBPIM – COP18 Doha 2012

Implementation of LCSBP Actions – 10 programmes in 2013

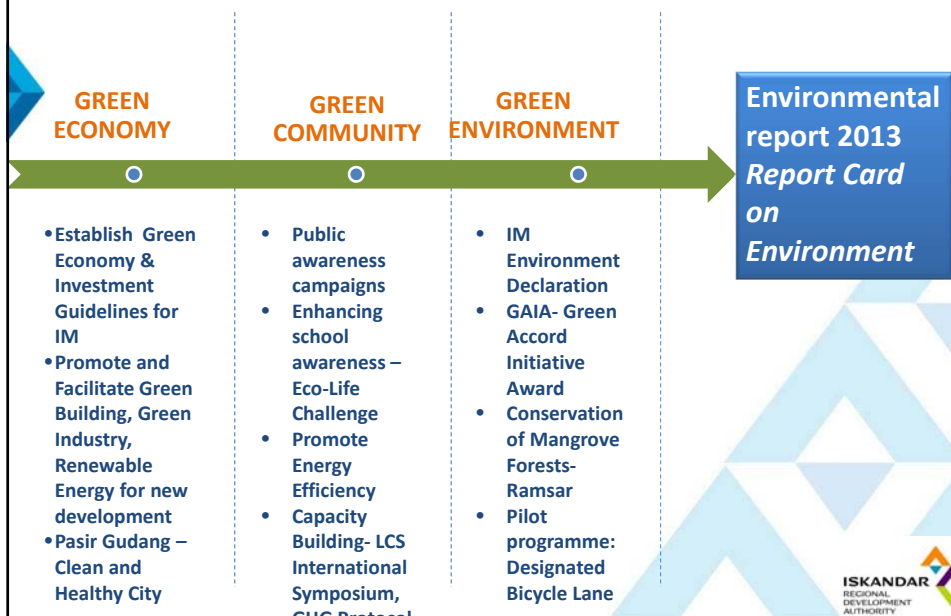


Launching of the Iskandar Malaysia: Actions for a Low Carbon Future



Malaysia Launching: 06 Nov 2013 at Parliament
Global launching: 15 November 2013,
COP19 Warsaw Poland

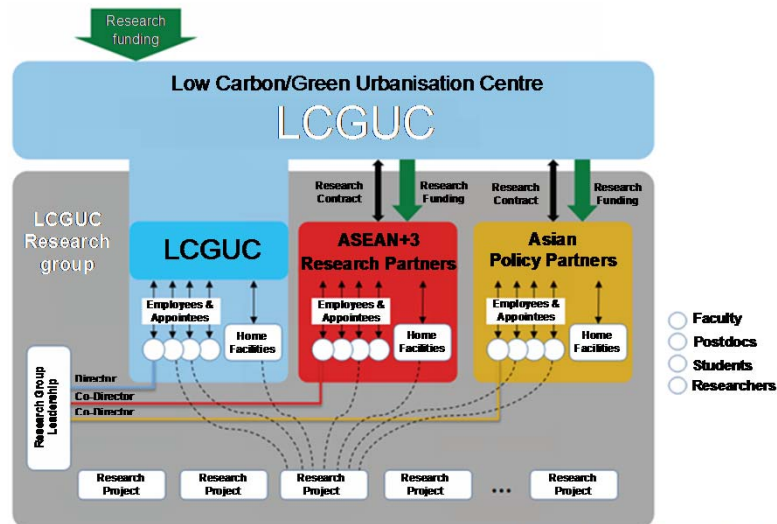
LCS: Ongoing projects- on the ground



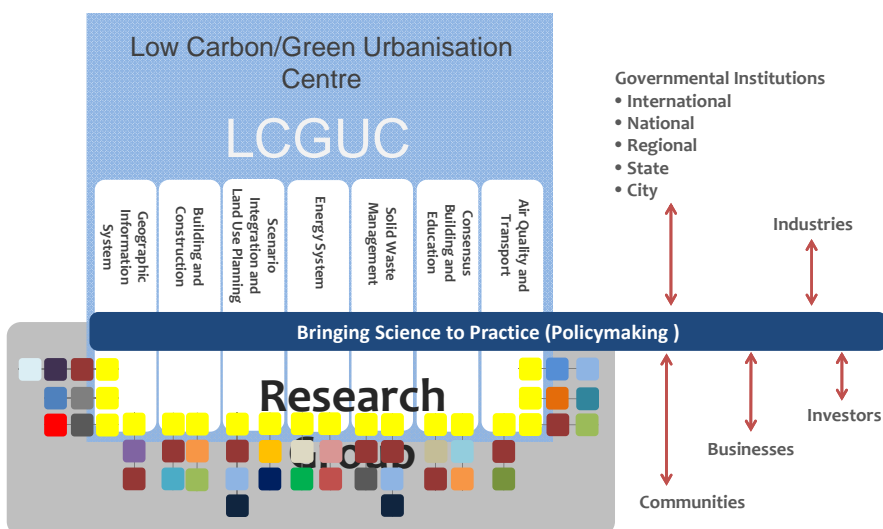
Upgrading Low carbon Asia centre to ASIANLow Carbon/Urbanisation Centre



MOEJ, JICA, ADB, USAID, UNDP, UNEP, UNESCAP, World Bank and Malaysian Government



5 Low Carbon/ Green Urbanization Centre: Strengthening Science based Policymaking



Renewable energy in Malaysia

National Renewable Energy Policy and Action Plan (2009)



Objective

to enhance the **utilization of indigenous renewable energy (RE) resources** to contribute towards national electricity supply security and sustainable socioeconomic development.

Renewable energy Act 2011

Part I: Preliminary

Part II: FiT System

Part III: Connection, Purchase / Distribution RE

Part IV: Feed-in Tariff

Part V: Renewable Energy Fund

Part VI: Information Gathering Powers

Part VII: Enforcement

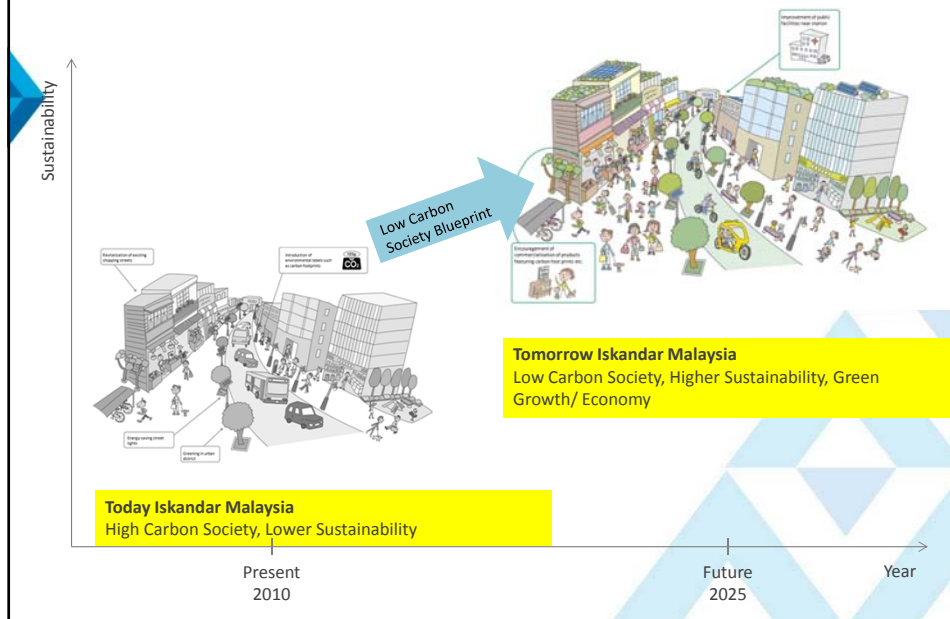
Part VIII: General

Part IX: Savings and Transitional

Objective

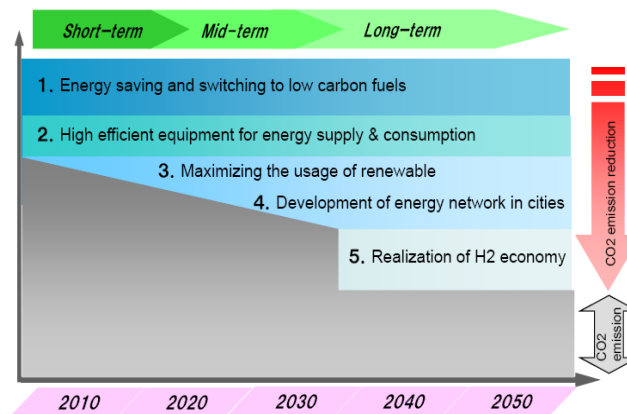
to provide establishment and special tariffs system to **catalyst the generation of renewable energy.**

Iskandar Malaysia: Today and Tomorrow



Transition LCS – Malaysia approach

Transition to Low Carbon Society



Conclusion- Way forward

a) DEVELOPMENT APPROACH

In a **rapid urbanization** situation, **Sustainable economic corridor development/ conurbation planning**(consists of several local authorities) is a important component to facilitate green environment, green economy and green community.

b) METHODOLOGY

Good **baseline quantitative study, consensus building and low carbon blueprint plan** will help to develop an **integrated climate resilient , Low carbon framework** for a city by providing **objective** decision.

-Looking beyond policy – **SCIENCE-KNOWLEDGE-POLICY-IMPLEMENTATION (completing PDCA cycle)**

c) NETWORK

The **researchers/scientists** have to work with **local implementation agencies** and **international collaboration** for **capacity building opportunities**.



Thank you for your attention!

Thank You Terima Kasih 谢谢 धन्यवाद ありがとう

