## **East Asia Low Carbon Growth dialogue**

- Observer Room 4 at 1830-2000 on Dec 7 2015

Way Forward

**National Planning and city Actions** 

Science to Action of Sustainable Low carbon City-Region -The case of Iskandar Malaysia

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Faculty of Built environment/ UTM Low Carbon Asia Centre

















SATREPS

Science and Technology Research Partnership







## Background

### Malaysia cities: Key Challenges



Iskandar Malaysia – 1.5 million – 3mil (2020) Putrajaya – 100,000 to 350,000 (2025)



Voluntary 40% reduction of CO<sub>2</sub> emission intensity by 2020

### Issues

- Rapid urbanization and industrialization (7%pa)
- Relatively high carbon intensity dependence on fossil fuel
- High private car ownership
- \_ Low density development and urban sprawl
- \_ Low efficiency appliances and Renewabl energy

### **Government Policy Directions**

- \_ National Green Technology Policy
- \_ National Policy on Climate Change
- National Renewable Energy Policy and Action Plan
- National Policy on the Environment
- 11<sup>th</sup> Malaysia Plan ( 2016-2020)
- Green Neighborhood Planning Guideline
- Low Carbon Cities Framework and Assessment System

### Malaysia-background

Journey realizing Vision 2020- A fully developed nation along all dimensions – economically, politically, socially, psychologically and culturally by 2020.

## Themes related to low carbon development

- Digital nation,
- Green growth cities
- Competitive cities
- Promote biodiversity
- Environmental awareness,
- Enable energy plan,
- Inclusiveness,
- Enable energy plan

### In retrospect

ONE OF THE BEST

Real GDP 6.2% per annum

Malaysia has enjoyed one of the best economic growth records in Asia over the last five decades despite a multitude of challenges and economic shocks. The economy achieved a stable real GDP growth of 6.2% per annum since 1970, successfully transforming from a predominantly agriculture-based economy in the 1970s, to manufacturing in the mid-1980s, and to modern services in the 1990s.

25X increase in per capita income



Malaysia rose from the ranks of a low-income economy in the 1970s to a high middle-income economy in 1992 and remains so today. Malaysia's national per capita income expanded more than 25-fold from US\$402 (1970) to US\$10,796 (2014) and is well on track to surpass the US\$15,000 threshold of a high-income economy by 2020.

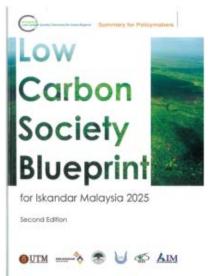


			Carbon intensity Kg / kg oil equiv
1990	56,593	3.1	2.6
2000	216,804	7.7	3.0

## Focus area of green sustainability



## Low Carbon Society Blueprint for Iskandar Malaysia 2025





- The LCSBPIM— a quick reference for all policy-makers in both public and private sectors as well as IRDA;
- 12 Actions grouped in 3 parts namely: (Green Economy), (Green Community), and Green Environment);281 programmes;
- Each Chapter contains an analysis, list of programmes and the potential GHG emissions reduction;
- IRDA launched its Low Carbon Society Blueprint for Iskandar Malaysia 2025 on 30 November 2012 at the United Nations Climate Change Conference in Doha, Qatar. The ultimate goal is to reduce Iskandar Malaysia's carbon intensity emissions by 50 per cent by 2025.
- The Blueprint was subsequently endorsed by the Prime Minister of Malaysia in December 2012

	Action Names	Themes
1	Integrated Green Transportation	
2	Green Industry	
3	Low Carbon Urban Governance	GREEN
4	Green Buildings & Construction	ECONOMY
5	Green Energy System & Renewable Energy	
6	Low Carbon Lifestyle	
7	Community Engagement & Consensus Building	GREEN COMMUNITY
8	Walkable, Safe, Livable City Design	
9	Smart Growth	GREEN ENVIRONMENT
10	Green and Blue Infrastructure & Rural Resources	
11	Sustainable Waste Management	
12	Clean Air Environment	

## Low Carbon Society Scenarios for Iskandar Malaysian

## LCS Blueprints for 5 Local Authorities - First Cuts





















**Pontian** 

Johor Bahru

'The Vibrant Heart of 'Liv Southern Region' City

Johor Bahru Tengah

*'Livable Community City'* 

Pasir Gudang

'Green Manufacturing Hub' Kulai Jaya

'Smart Logistic Hub'

'Agrobiodiversity Hub'

## Putrajaya Low carbon city

# Towards Putrajaya Green City 2025













#### **GREEN CITY INITIATIVES**

Focus Area 1: Planning, Urban Design & Building

Focus Area 2: Integrated Nature Into The Urban Fabric

Focus Area 3: Transportation & Mobility

Focus Area 4: Energy Usage Focus Area 5: Water Usage

Focus Area 6: Solid Waste Management

Focus Area 7: City Administration & Management

### INVENTORY OF PUTRAJAYA **GREENHOUSE GAS EMISSIONS 2012**

Inventory Result

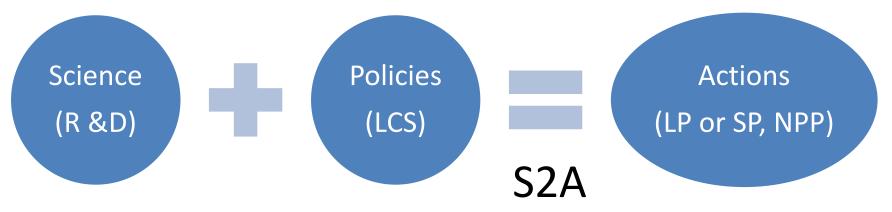
Carbon Emissions from Building Sector

Carbon Emissions from Transportation Sector

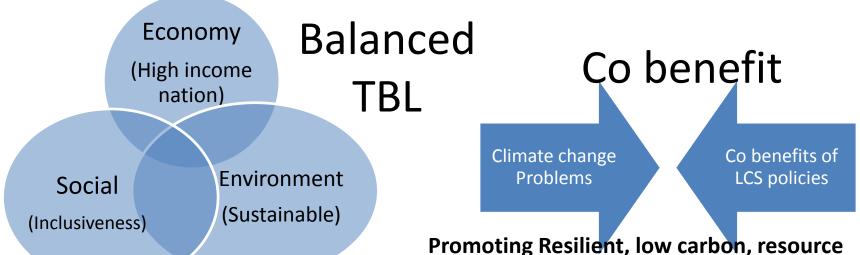
Carbon Emissions from Waste Sector

Conclusion

# Sustainable development approach/ Climate Actions



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



efficient and socially inclusive development

## (The importance of Implementation and Monitoring)

