

# LOW CARBON CITY by AIM

On 9 Dec 2014 at Japan Pavillion COP20 Lima Peru

(Asia Pacific Integrated Model hosted by National Institute Environmental Studies)

## Science into Action – Realizing Low carbon society The case of Iskandar Malaysia



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**Project for Development of Low Carbon Society Scenarios for Asian Regions**

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# Content- Structure of Presentation

## Background

- **Background – Low Carbon city design issues and challenges**
- **Urban problem and low carbon solution policy in Asia**

## LCS actions

- **Low Carbon City design for Iskandar Malaysia**
- **Solution- 12 actions**
- **Updates – SE4ALL, RCE status**

## Challenges And Solution

- **Key Lessons learned**
- **Key success factors (KSF)**
- **Challenges' and opportunities for Municipalities**

# 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.**

# Key Success Factors (KSF) of green cities in Malaysia

## National Policy and Co benefit

### National Policy

- **National Agenda** 40% CO<sub>2</sub> intensity reduction
- Green as **New Consumer Culture, New Market**  
**New Growth** with Green Credentials **Economics**  
**Environment = Green Economy.**
- Climate change and **sustainability policy issues** **are embedded** in all spatial planning policies ( NPP/ RS/LP)

### Co benefits

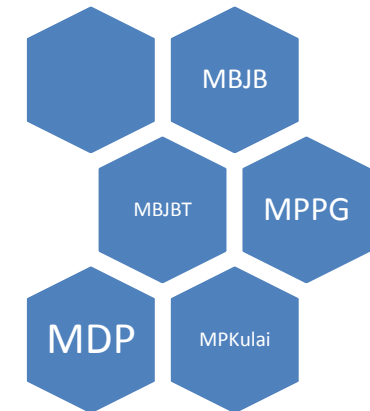
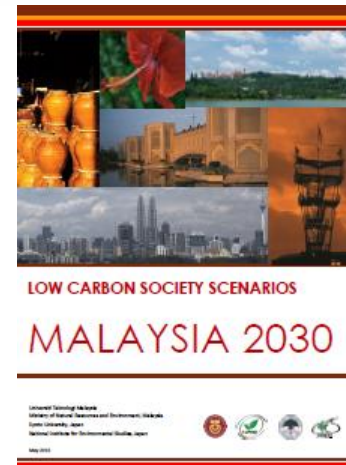
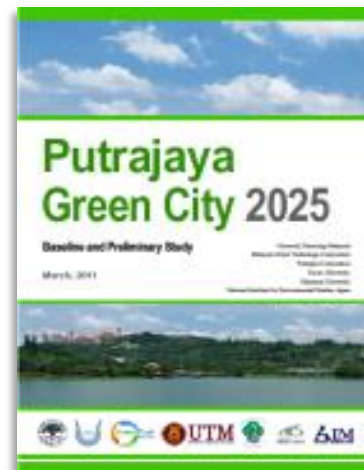
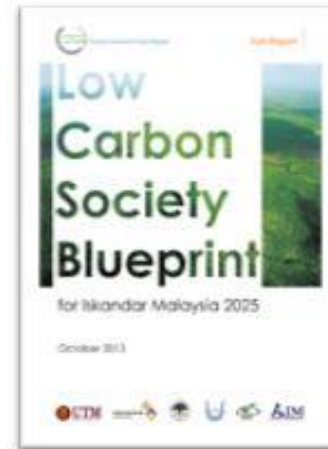
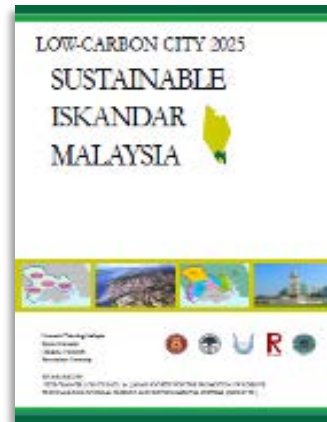
- **Fulfill roles to reduce vulnerability** on disasters (flood) and promote comfort and safety.
- **Money-saving** -Energy conservation and renewable energy
- Improvement **Health and quality of environment**



# 3 Establishing Low Carbon Society Scenario in Malaysia

## - Regional Cooperation with Japan – NIES and IGES

### City and Region



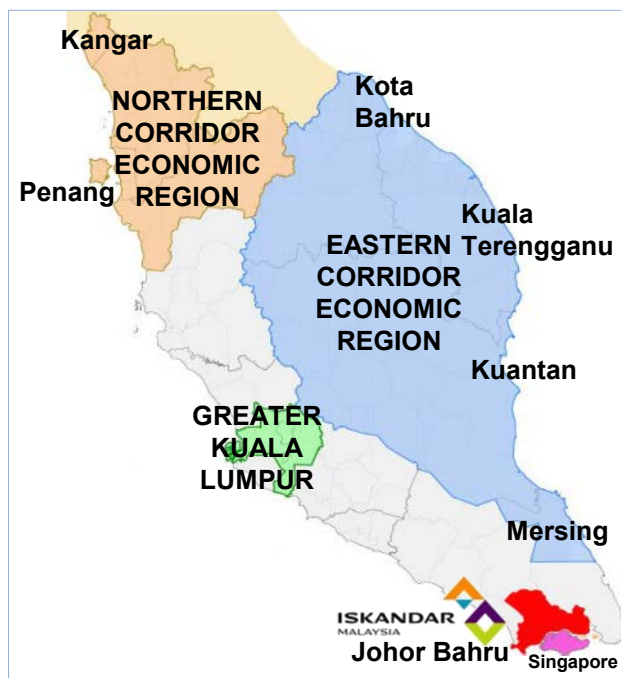
## The Case of Iskandar Malaysia

**“Strong and Sustainable Metropolis  
of International Standing”**

# ISKANDAR MALAYSIA

Iskandar Malaysia is Malaysia's economic growth corridor covering a total area of 2,317 sq km (12% of Johor State)

## Iskandar Malaysia in the context of Regional Corridors



*Iskandar Malaysia*

**3 times larger**



*Iskandar Malaysia*

**1.3 times larger**



*Iskandar Malaysia*

**11 times smaller**

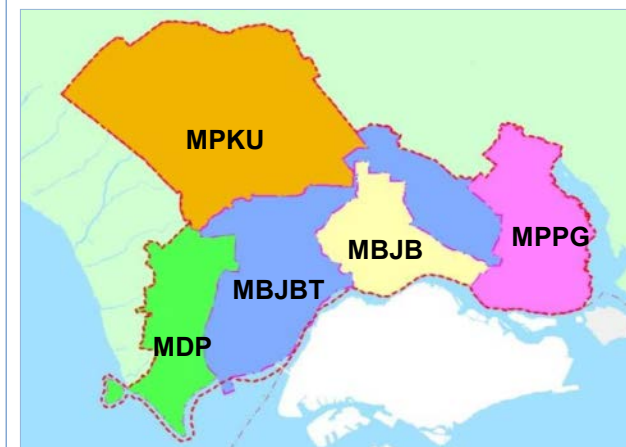


*Iskandar Malaysia*

**30 times smaller**



Iskandar Malaysia covers **FIVE** local planning authorities.



	2005	2010	2025
Population (million)	1.35	1.61	3.00
Labour Force (million)	0.61	0.70	1.43
Employment (million)	0.62	0.72	1.46

Source: CDP 2006 – 2025, Population Census 2010 and consultant estimates

# 01 Low Carbon Society Scenarios for Iskandar Malaysia

## Project Background



Site: Iskandar Malaysia

(Iskandar Regional Development Authority)

### 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

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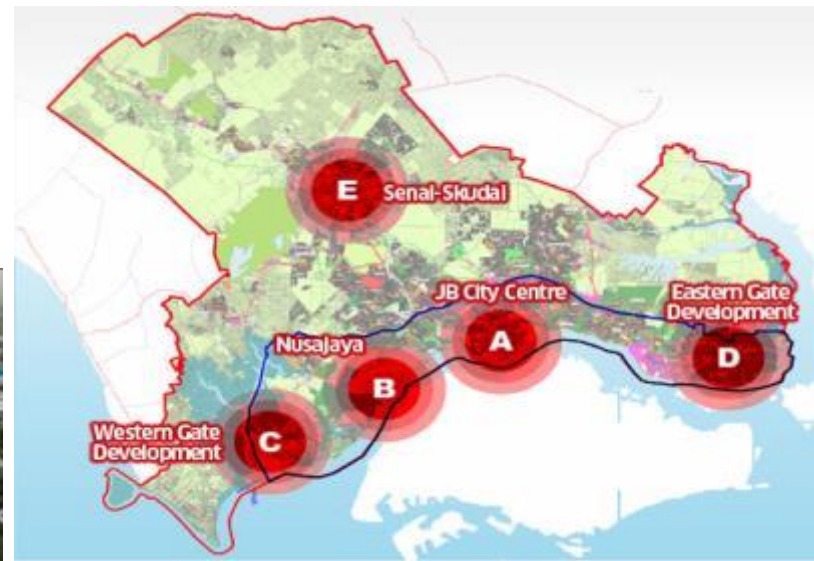
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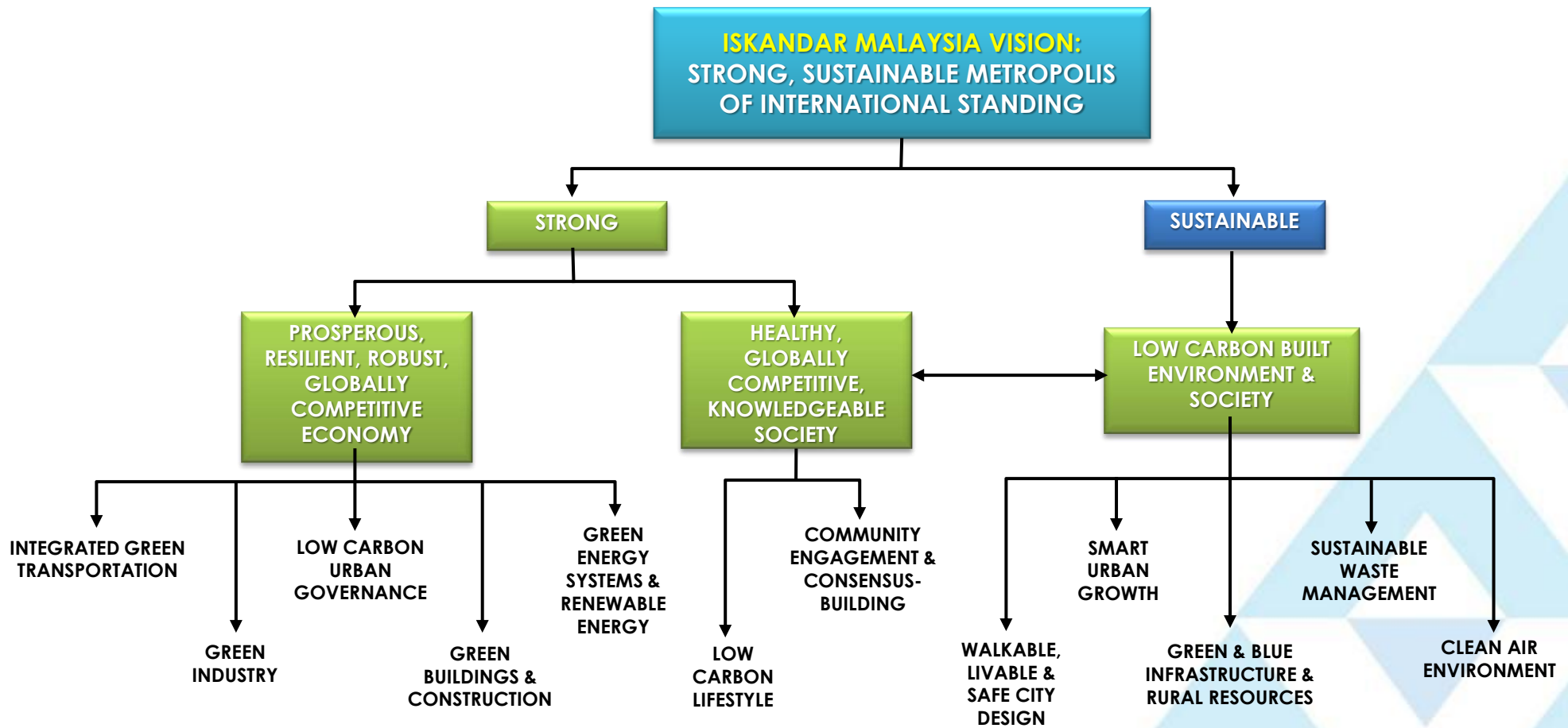
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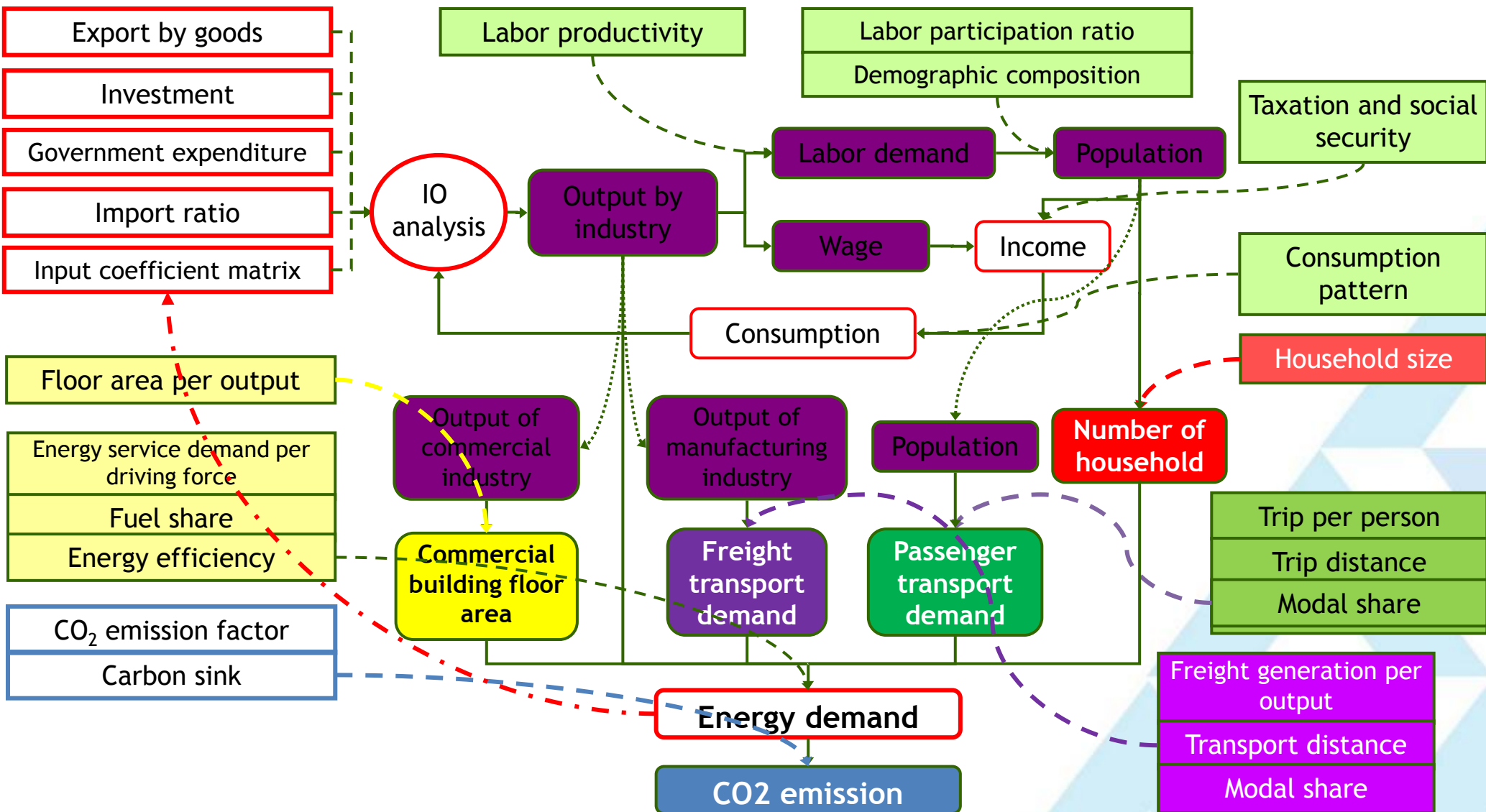


# Green-focused Agenda - Rationale

## Aligning the Vision with Low Carbon Society Development



# LCS scenario study using ExSS



# Projected Greenhouse Gas Emission Reduction in Iskandar Malaysia

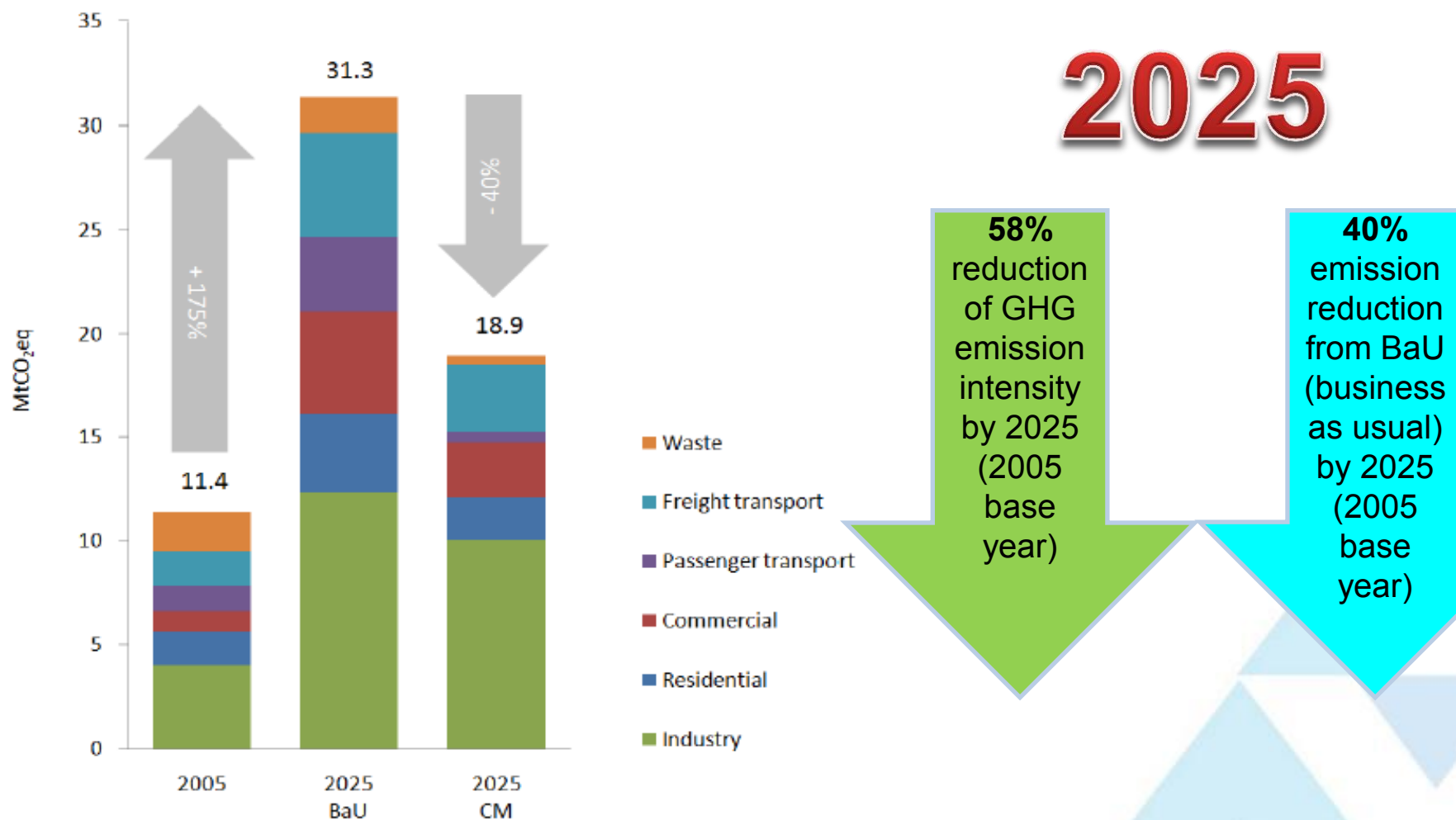


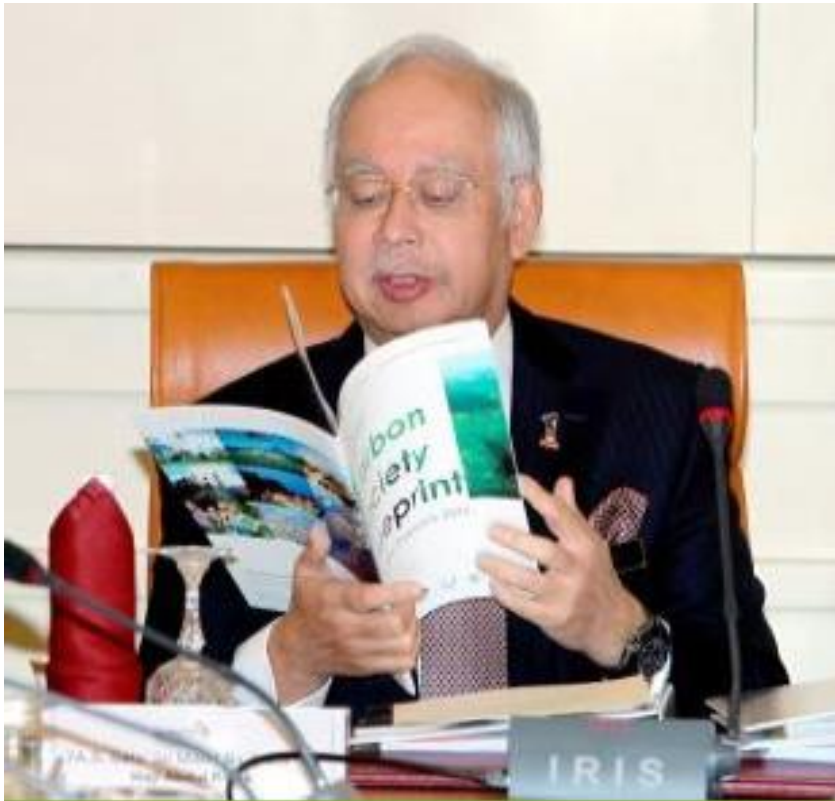
Figure 1: GHG emissions by sectors

# Launching of the LCSBPIM - COP18 Doha, 2012

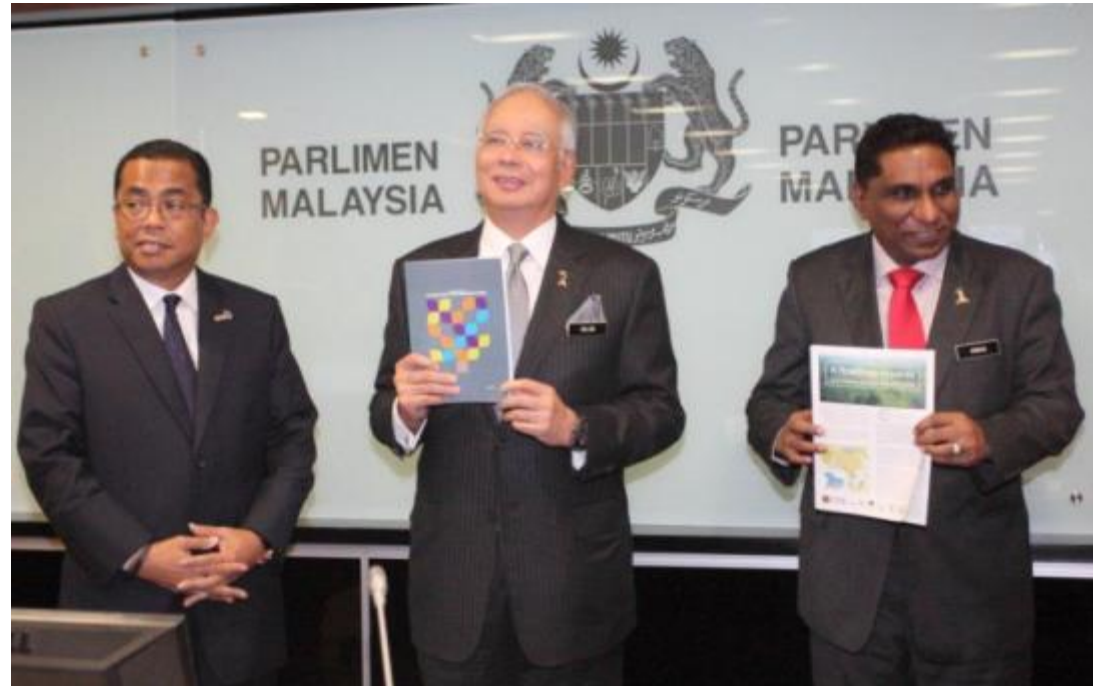
## Launching of the LCS Road Map/ Action Plan COP19 Warsaw, 2013



## Endorsed by Malaysia Prime Minister - YAB Dato' Sri Mohd Najib bin Tun Abdul Razak

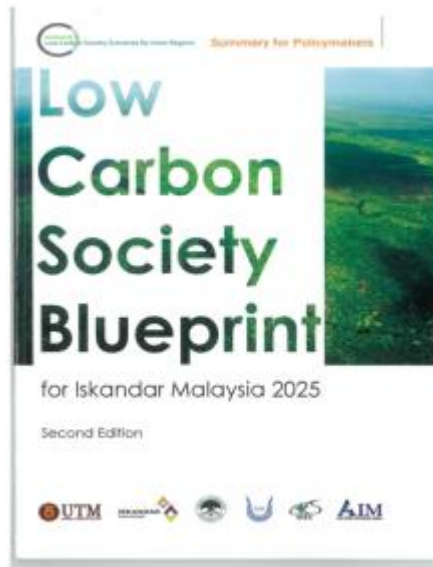


11<sup>th</sup> December 2012  
The PM endorses the launching of  
LCSBPIM at COP 18 during MoA



6<sup>th</sup> November 2013  
The PM launched Actions for a  
Low Carbon Future during MoA

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

# Iskandar Malaysia: Actions For A Low Carbon Future



- The Booklet 'Actions for a Low Carbon Future' – list of 10 programmes which IRDA has started implementing or have been completed.
- On 6th November 2013, the Iskandar Malaysia: Actions for A Low Carbon Future is the implementation booklet which outlines the 10 programmes, was launched by Malaysia Prime Minister Dato' Sri Mohd Najib Tun Abdul Razak.
- On 15th and 18th November 2013, was the subsequent global launching at COP 19, Warsaw, Poland.

Programmes		PIC
1	<b>Integrated Green Transportation – Mobility Management System</b>	<b>Kamisah Mohd Ghazali</b>
2	<b>Green Economy Guidelines</b>	<b>Ivy Wong Ling Ling</b>
3	<b>Eco-Life Challenge Project for Schools</b>	<b>Isma Ezwan Safri</b>
4	<b>Portal on Green Technology</b>	<b>Choo Hui Hong</b>
5	<b>Trees for Urban Parks/Forests</b>	<b>Boyd Dionysius Joeman</b>
6	<b>Responsible Tourism and Biodiversity Conservation</b>	<b>Boyd Dionysius Joeman</b>
7	<b>Bukit Batu Eco-Community</b>	<b>Hamdi Mohd Yusof</b>
8	<b>GAIA – Green Accord Initiative Award</b>	<b>Ivy Wong Ling Ling</b>
9	<b>Low Carbon Village FELDA Taib Andak</b>	<b>Dr Ibrahim Ngah (UTM)</b>
10	<b>Special Feature: Smart City – Nafas Baru Pasir Gudang: CLEAN AND HEALTHY CITY</b>	<b>Sakurah Jamaluddin , Sharifah Shahidah Syed Ahmad, Muhammad Fadly Muhammad Nor, Choo Hui Hong</b>

# 03 Low Carbon Society Proposal Plans for 5 Municipalities

## Integrating Iskandar Malaysia and 5 Local Municipalities

Top - down

Low Carbon Society Blueprint for Iskandar Malaysia 2025

Bottom - up

Low Carbon Society Action Plan for Johor Bahru 2025

Low Carbon Society Action Plan for Johor Bahru Tengah 2025

Low Carbon Society Action Plan for Pasir Gudang 2025

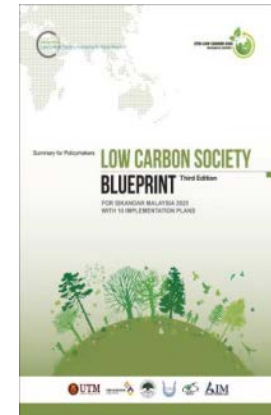
Low Carbon Society Action Plan for Kulai Jaya 2025

Low Carbon Society Action Plan for Pontian 2025

Iskandar Malaysia

■ Di

FIVE (5) Local Municipalities



- Detail Local Action
- Priority and Preference
- Correct Data through Survey
- Chose Implementable measures on the ground
- Pioneering Activities through Pilot Projects





# Media Highlights 2012-2013 (LCS AND IM)



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## Metro

## Low carbon society

All parties in Iskandar Malaysia have roles to play in transforming the economic growth corridor as a sustainable living place for the well-being of the society.



## Balanced approach

Cooperate to transform Iskandar Malaysia for sustainable living

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## 依斯干達 邁向2030年

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## NEW STRAITS TIMES

## Najib confident of Iskandar M'sia's investment drawing power

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## Iskandar Malaysia Launches Low-carbon Society Blueprint

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## PM Najib: Iskandar Malaysia has exceeded expectations

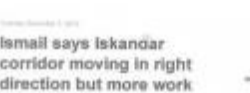
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## Ismail says Iskandar corridor moving in right direction but more work needed

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# Media Highlights 2013-2014 (LCS AND IM)



**Najib lancar buku panduan pastikan kualiti hidup lebih baik penduduk Wilayah Iskandar**  
 Posted on November 7, 2013, Thursday

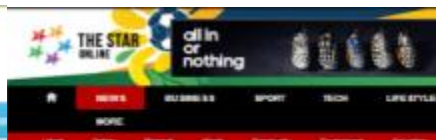


IRDA hari ini (Jumaat) menyerahkan kepada ahli agensi penerangan kepada para pemimpin Iskandar Malaysia mengenai strategi untuk meningkatkan kualiti hidup serta memastikan Program Rancangan Iskandar Malaysia mencapai sasaran pembangunan Iskandar 2025. Menteri Besar Johor, Datuk Johari Abdul Karim, Datuk Menteri Besar Iskandar, Datuk Mohd. Yusoff Yusoff, dan Datuk Menteri Besar Iskandar, Datuk Mohd. Yusoff Yusoff, turut hadir dalam majlis tersebut.

**Iskandar Malaysia Aiming to be Low Carbon City**  
 Mon 27th, 2014 - by admin



Following the rising trend and increase demand for sustainable living spaces, Iskandar Malaysia is set to implement the Low Carbon Cities Framework and Assessment System (LCCFAS), which was drawn up by the Ministry of Energy, Green Technology and Water (MGTW) and Malaysian Green Technology Corporation (MGTWC).



**Community**

**Johor to reduce power consumption in support of low carbon society**  
 27 October 2014



**NUSAJAYA:** Johor is making a pledge to reduce power consumption at all state government buildings here at least by 5% to show its support and commitment to the low carbon society.



**Low Carbon Cities (Part 2) - Iskandar's unique blueprint**  
 Published on 27 May 2014 - 10:00 am

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**AIC approves "Low Carbon Society Blueprint for Iskandar Malaysia 2025"**  
 Formulated by international research team including Kyoto University (28 March, 2014)

The "Low Carbon Society Blueprint for Iskandar Malaysia 2025," an action plan for the realisation of a low carbon society formulated by an international team of researchers from Kyoto University, Japanese Technical Institute, and other institutions was formally approved on March 28, 2014. This blueprint was jointly formulated by the Approval and Implementation Committee (AIC). This is the first example of a practical formulation of a low carbon blueprint at the regional level (equivalent to Japan's prefecture level) in an ASEAN country, and it is expected to become a model for creating low carbon cities in Asian nations.



**1,000 trees planted in Iskandar**  
 19 May 2014 - last updated on 17 May 2014

**GO GREEN:** Residents of Sungai Buloh Recreational Park plant tree saplings to reduce the carbon footprint.

**PRERU (SEKIDAR):** In an effort to reduce the carbon footprint in Iskandar Malaysia, the residents of Sungai Buloh Recreational Park...



**Iskandar Malaysia akan lancar sistem pengurusan mobiliti**

KUALA LUMPUR: Pihak Berkuasa Wilayah Persekutuan Iskandar akan memperkenalkan sistem pengurusan mobiliti di Iskandar Malaysia pada hujung tahun ini, apabila projek pembangunan ini selesai.



**‘Services, logistics investments rising’**  
 BULLISH MOOD: Iskandar has been enjoying 7pc-8pc annual growth, says Irda head

Investment in Iskandar Malaysia from January to June this year.

Meanwhile, IRDAMAS is a system that uses technology to promote a sustainable transportation system and manage the demand of car use by changing the traveler's attitude and behavior towards public transportation.



**Practices of Iskandar Economic Zone, Malaysia**  
 Low Carbon Society Blueprint for Iskandar, Malaysia

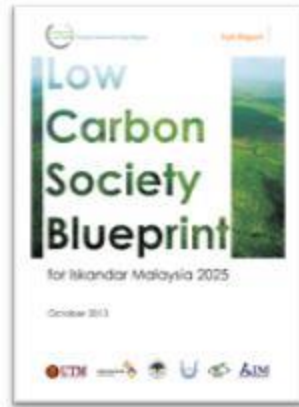
The Low Carbon Society Blueprint for Iskandar Malaysia (LCCBS) is a framework for the development of a low carbon society in Iskandar Malaysia.

# Low Carbon Society for Iskandar Malaysia Publications



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

<http://irdep.irda.com.my/cms/download/documentSharing/18230>



Low Carbon Society  
Blueprint for Iskandar  
Malaysia 2025- Full  
Report

<http://irdep.irda.com.my/cms/download/documentSharing/26570>



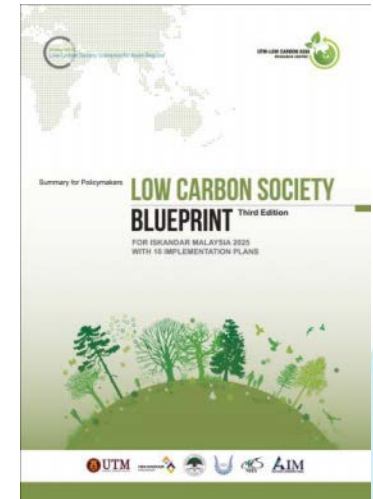
A Roadmap towards Low  
Carbon Iskandar Malaysia  
2025

<http://irdep.irda.com.my/cms/download/documentSharing/26563>



Iskandar Malaysia: Action  
for a Low Carbon Future

<http://irdep.irda.com.my/cms/download/documentSharing/26571>



Low Carbon Society  
Blueprint and 10  
implementation Plan

<http://irdep.irda.com.my/cms/download/documentSharing/26564>

# Concluding Remarks

## KSF

- S2A – Modeling/ Baseline study
- Multidisciplinary work – Planners/ Engineers/ Environmentalist
- FGD – Stakeholders
- Media/ Marketing
- Network - LoCARNet

## New updates

- RCE status
- SE4 all
- Detail Plan for 5 Local authorities- Implementation projects





*Thank you for your attention!*  
**ho@utm.my**

Thank You Terima Kasih 谢谢 धन्यवाद ありがとう

