



7th Annual LoCARNet Meeting

On 21-22 November 2018 at Arya Duta Hotel Jakarta

Parallel Session 1-2A Urban and Rural Low Carbon Climate Resilience Development

Low carbon climate change actions in Malaysia

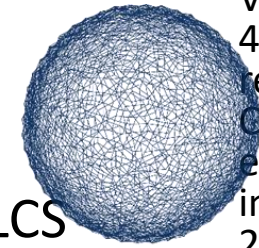
Chin Siong Ho

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Department of Urban and Regional Planning
Faculty of Built Environment
Universiti Teknologi Malaysia*

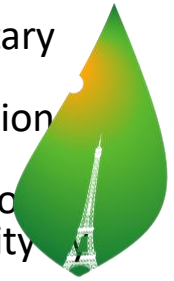


Background

Malaysia cities : Key Challenges on SDG goals and LCS



Voluntary
45%
reduction
CO₂
emission
intensity
2030



COP15
COPENHAGEN
UN CLIMATE CHANGE CONFERENCE 2009

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11



Size: 330,803 km²

Population: 32 mil. (2016) | 1.32%pa growth rate

GDP: 1.321 tril. RM (2016) 5% p.a growth rate

Issues

- Rapid urbanization and industrialization (7%pa)
- Relatively high carbon intensity dependence on fossil fuel (80%^)
- High private car ownership (15% public)
- Low density development and urban sprawl
- Low efficiency appliances and Renewable energy (5%)

Government Policy Directions

- National Green Technology Policy
- National Policy on Climate Change
- National Renewable Energy Policy and Action Plan
- National Policy on the Environment
- 11th Malaysia Plan (2016-2020) Mid term review
- Green Neighborhood Planning Guideline
- Low Carbon Cities Framework and Assessment System

Alignment to SDG2030 and New Urban Agenda

UTM-LOW CARBON ASIA RESEARCH CENTRE

Department of Urban and Regional Planning, Faculty of Built Environment, Universiti Teknologi Malaysia

PROJECTS

2017

PENGERANG LOW CARBON SOCIETY 2030 INCEPTION REPORT
KUALA LUMPUR LOW CARBON SOCIETY 2030 BLUEPRINT

2016

KUALA LUMPUR LOW CARBON SOCIETY 2030 INTERIM REPORT
KUALA LUMPUR LOW CARBON SOCIETY 2030 INCEPTION REPORT
CASBEE ISKANDAR FOR BUILDING (TECHNICAL MANUAL PILOT VERSION 2016)
CASBEE ISKANDAR FOR CITY/MUNICIPAL (TECHNICAL MANUAL PILOT VERSION 2016)
CASBEE ISKANDAR FOR URBAN DEVELOPMENT (TECHNICAL MANUAL PILOT VERSION 2016)

2015

LOW CARBON SOCIETY ACTION PLAN 2025 JOHOR BAHRU 2025 : VIBRANT WORLD CLASS COSMOPOLIS OF THE SOUTH
LOW CARBON SOCIETY ACTION PLAN 2025 JOHOR BAHRU TENGAH 2025 : GREEN LIVABLE CITY AND CREATIVE INNOVATION BELT
LOW CARBON SOCIETY ACTION PLAN 2025 KULAI 2025 : SMART INTEGRATED LOGISTIC HUB
LOW CARBON SOCIETY ACTION PLAN 2025 PASIR GUDANG 2025 : GREEN AND CLEAN INDUSTRIAL CITY
LOW CARBON SOCIETY ACTION PLAN 2025 PONTIAN 2025 : CLEAN ENERGY AND AGRO-BIODIVERSITY HUB
CASBEE-ISKANDAR PILOT PROJECT

2014

LOW CARBON SOCIETY BLUEPRINT FOR ISKANDAR MALAYSIA THIRD EDITION - SUMMARY FOR POLICYMAKERS
PASIR GUDANG GREEN AND SMART CITIES
ISKANDAR MALAYSIA ECO-LIFE CHALLENGE 2014

2013

LOW CARBON SOCIETY SCENARIOS MALAYSIA 2030
LOW CARBON SOCIETY BLUEPRINT FOR ISKANDAR MALAYSIA 2025 - SUMMARY FOR POLICYMAKERS SECOND EDITION
LOW CARBON SOCIETY BLUEPRINT FOR ISKANDAR MALAYSIA 2025 - FULL REPORT
ISKANDAR MALAYSIA : ACTION FOR A LOW CARBON FUTURE

2012

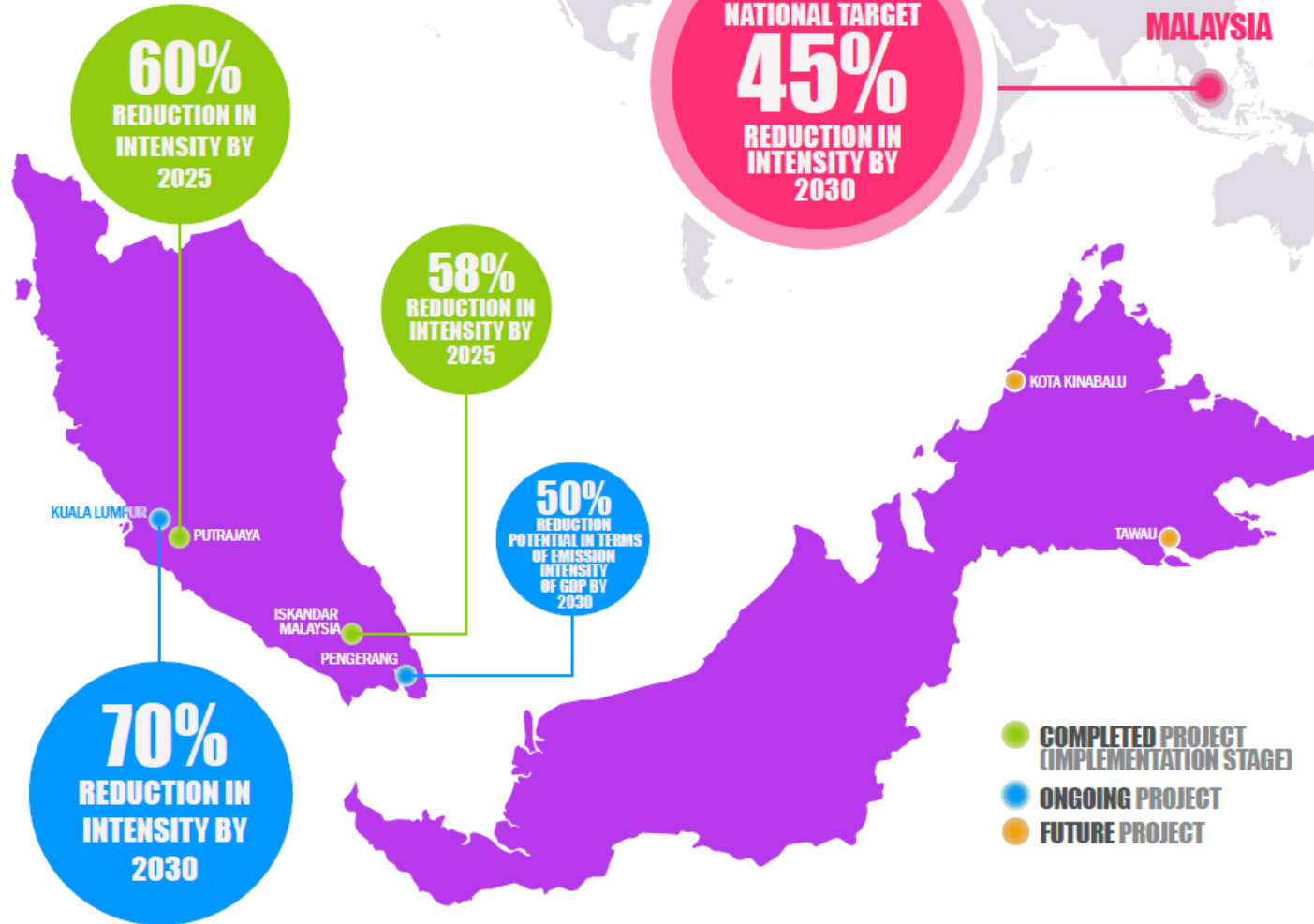
LOW CARBON SOCIETY BLUEPRINT FOR ISKANDAR MALAYSIA 2025 - SUMMARY FOR POLICYMAKERS 1ST EDITION

2011

PUTRAJAYA GREEN CITY 2025

2009

LOW CARBON CITY 2025 : SUSTAINABLE ISKANDAR MALAYSIA



- COMPLETED PROJECT (IMPLEMENTATION STAGE)
- ONGOING PROJECT
- FUTURE PROJECT



Malaysia

Land Area: 332,000 km²

Population: 28.28 million (2010)

GDP: 247.5 billion USD (2010)

45%

Reduction in GHG
Emissions Intensity of
GDP by 2030

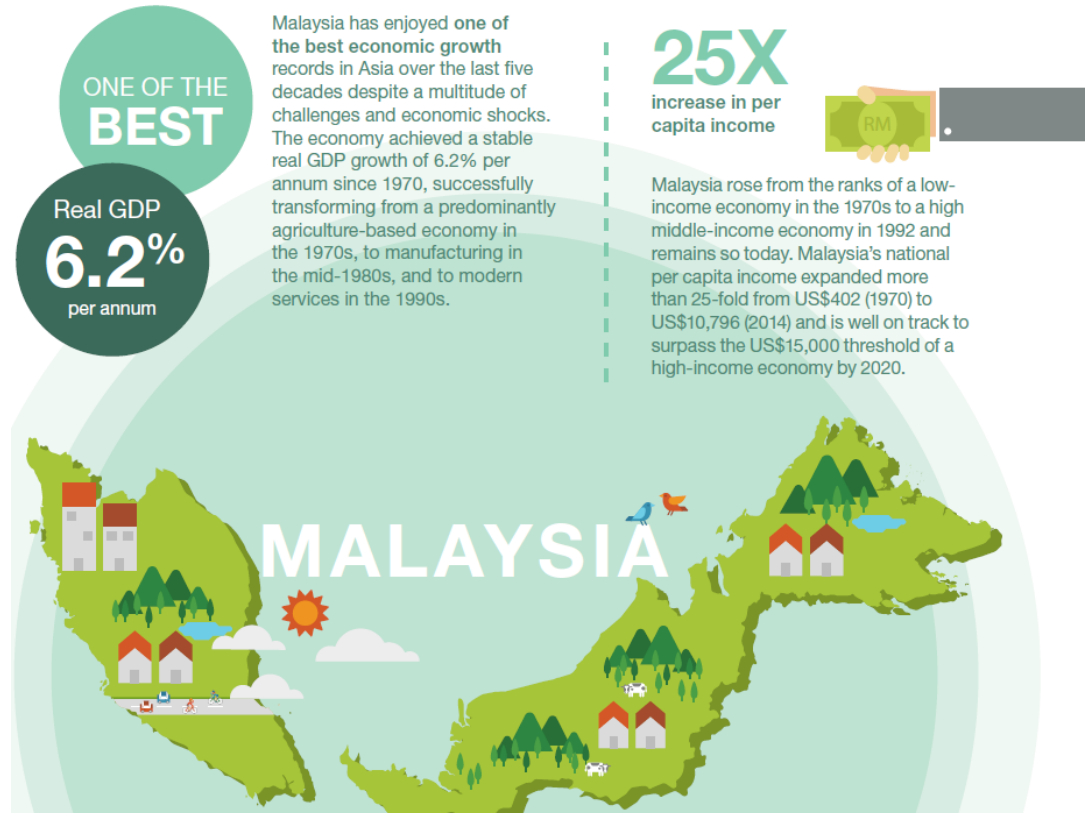
Malaysia- background

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



	CO2 emission ('000metric tons)	CO2 per capita metric ton	Carbon intensity Kg / kg oil equiv
1990	56,593	3.1	2.6
2000	216,804	7.7	3.0
2010	295,000	9.2	4.2

Eleventh Malaysia Plan 2016-2020

Green Growth Policy

INVESTING IN COMPETITIVE CITIES- Major Shifts

- Economic Density**
 - -Increase Density
- Urban Form**
 - Transit Oriented Development (TOD)
- Resource usage**
 - - Efficient SWM
- Housing**
 - -Quality and Affordable
- Industry Focus**
 - Knowledge Intensive Industries
- Role of Local authorities**
 - - Strategic drivers of local economy and social development

Shift away from ‘grow first and clean up later’ development model towards one that is **resilient, low carbon, resource efficient and socially inclusive.**

Why is green growth important for Malaysia?

- Increasing **intensity and frequency of extreme** weather events.
- Malaysia’s **commitment to renew and increase its commitment** to the **environment and long-term sustainability**
- Application of **Green Technology ? As Strategic industry**

FOCUS AREA OF GREEN SUSTAINABILITY

1

CC and Disaster Management

Strengthening resilience against climate change and natural disasters

- Strengthening disaster risk management
- Improving flood mitigation
- Enhancing climate change adaptation

2

Enabling environment for Green Growth

Strengthening the enabling environment for green growth

- Strengthening governance to drive transformation
- Enhancing awareness to create shared responsibility
- Establishing sustainable financing mechanism

3

Sustainable Consumption & Production

Adopting the sustainable consumption and production concept

- Creating green markets
- Increasing share of renewable in energy mix
- Enhancing demand side management
- Promoting low carbon mobility
- Management waste holistically

4

Conservation for future generation

Conserving natural resources for present and future generations

- Ensuring natural resources security
- Enhancing alternative livelihood for indigenous and local communities

S2A AND S2B

SCIENCE TO ACTION
SCIENCE TO BUSINESS

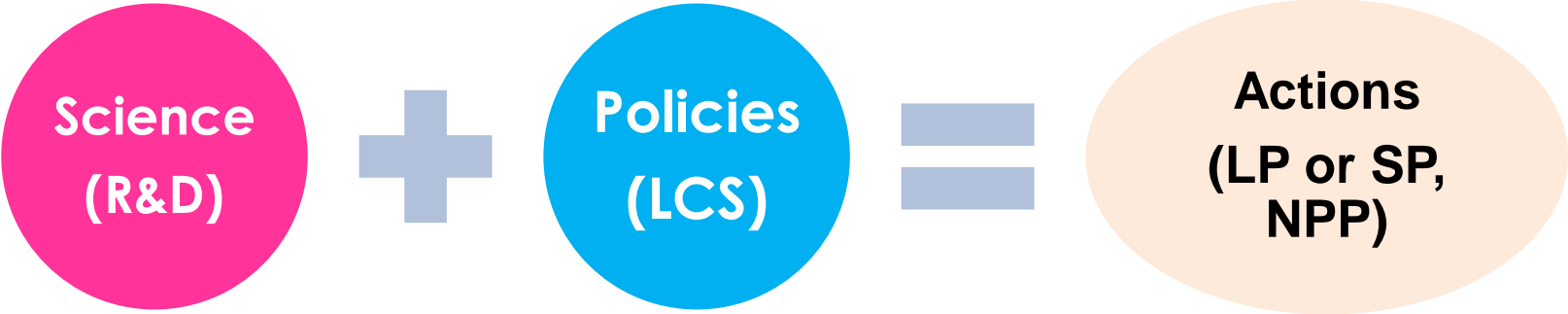


how do we see
science technology
and innovation as
key drivers and
**enablers of
sustainable urban
development?**

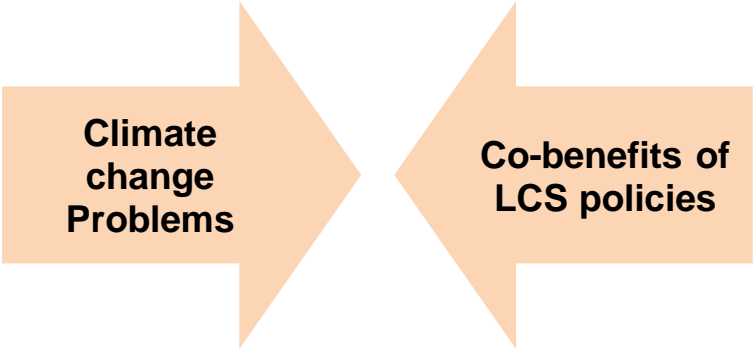
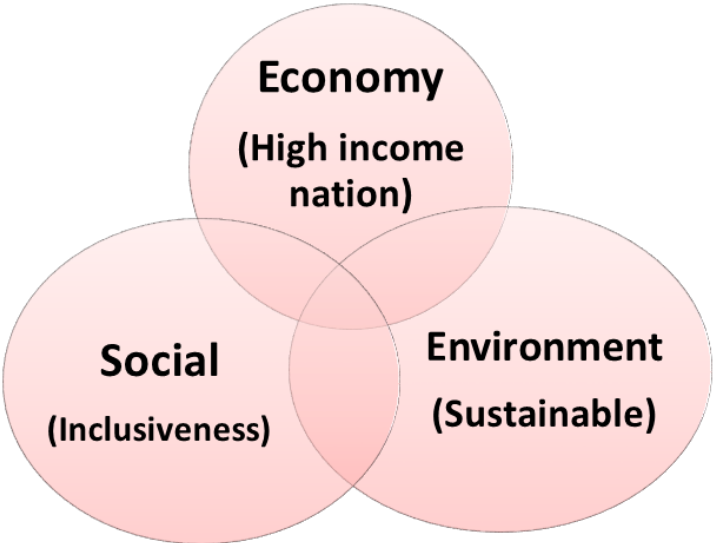
- **SOCIETY AT THE CORE**
- Decoupling, decarbonising + co-benefits
- Holistic : techno-fixes + people-centric, socially-rooted programs + environmental countermeasures

Harnessing contribution of Science and Technology

Sustainable development approach/ Climate Actions



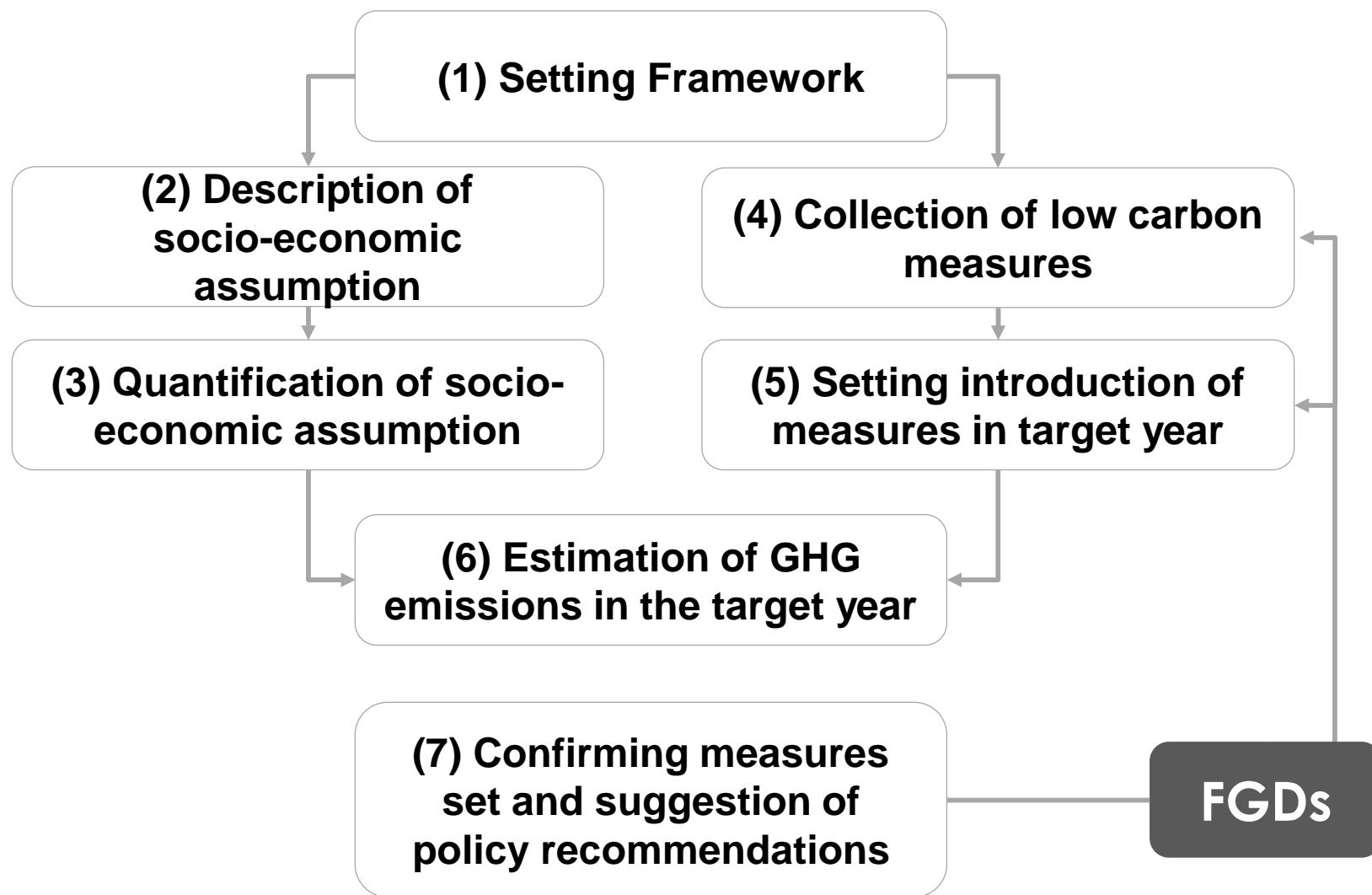
Key Elements of Sustainable Development
= PRO GROWTH, PRO JOB , PRO POOR and PRO ENVIRONMENT



Promoting resilient, low carbon, resource efficient and socially inclusive development

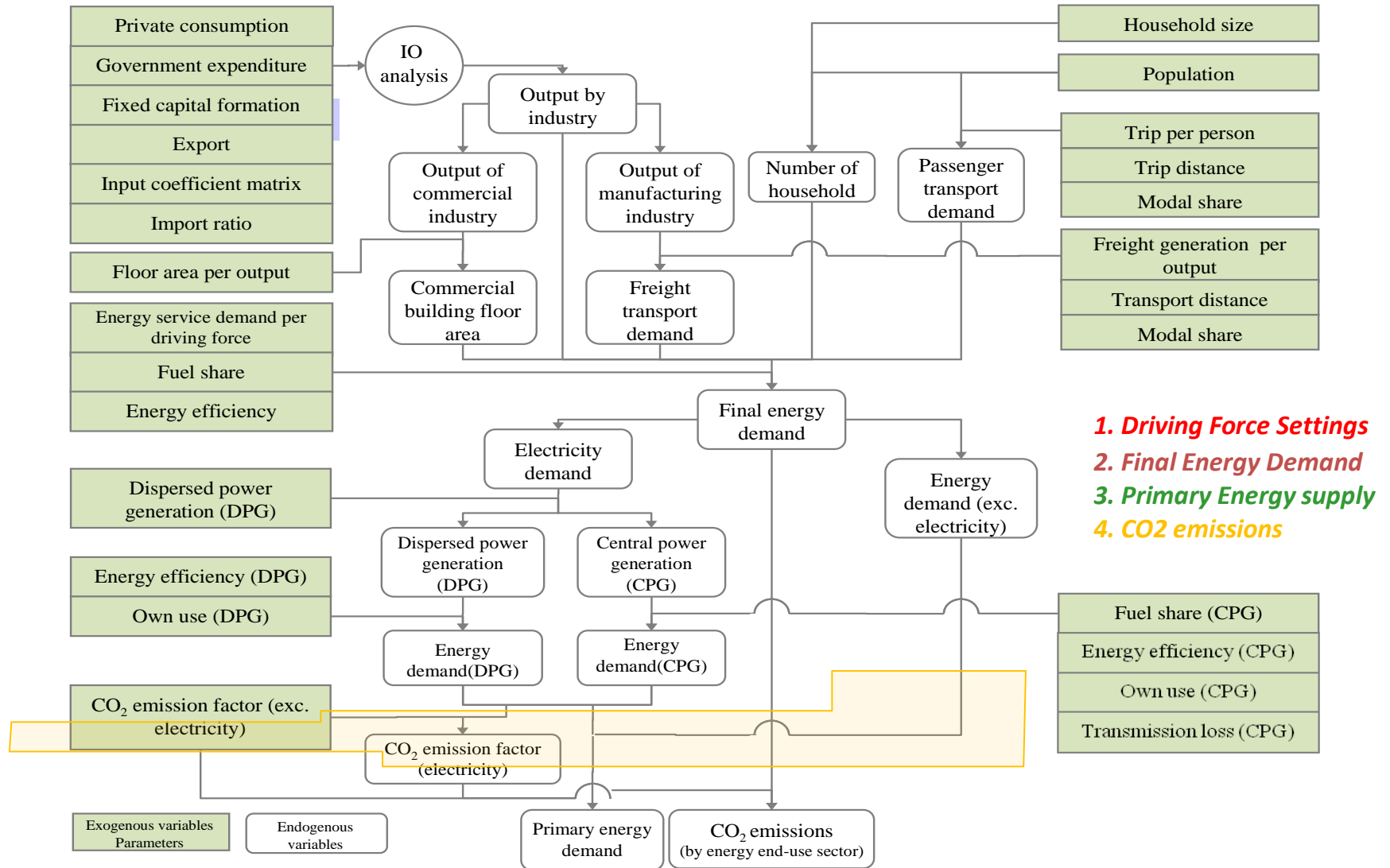
Low Carbon Society Blueprint 2030

THE SCENARIO DEVELOPMENT



CO₂ Emission Modeling – ExSS (AIM model)

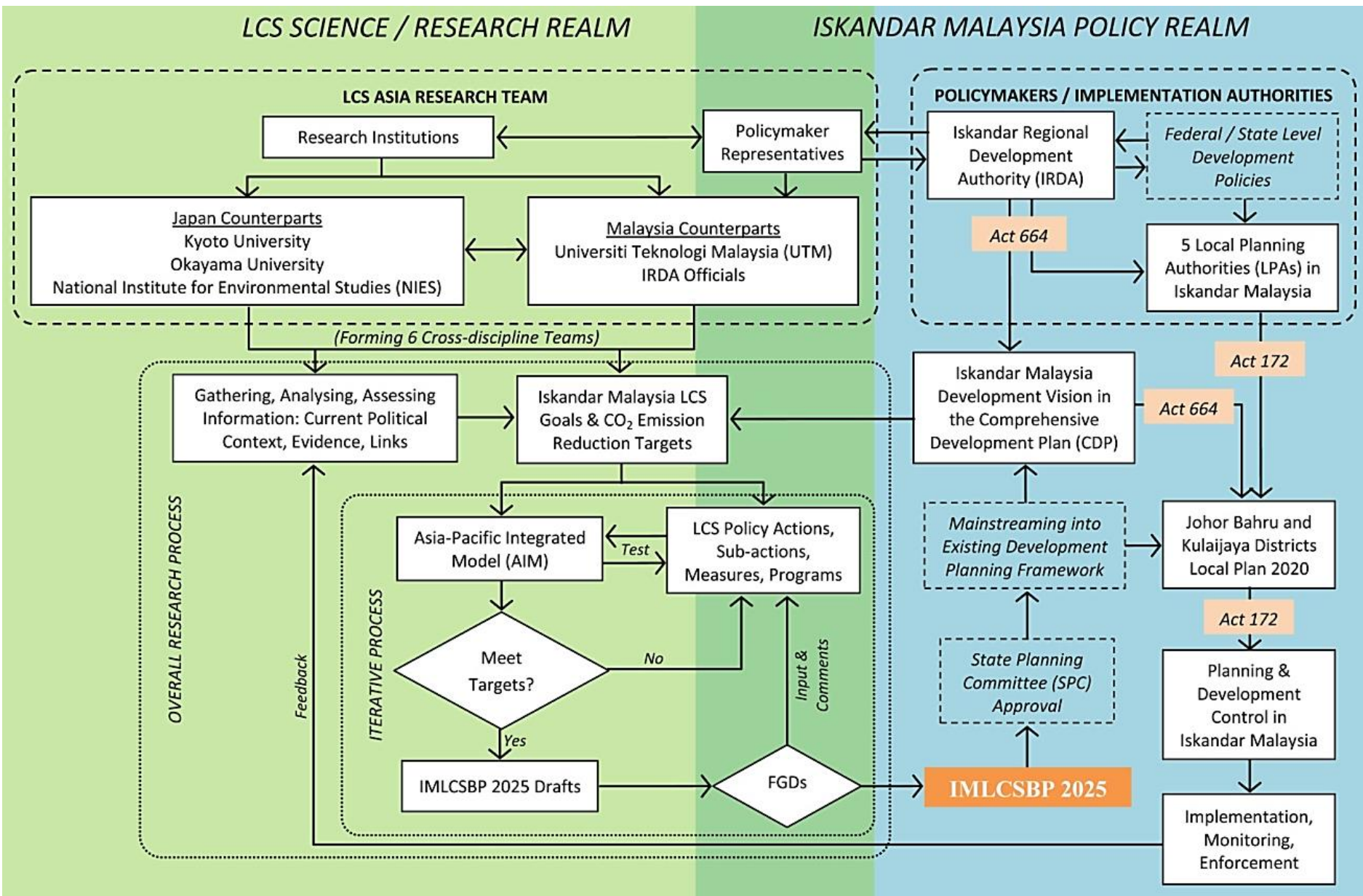
Development of Low Carbon Society Scenarios for Asian Regions



IMLCSBP2025 : Science to Action

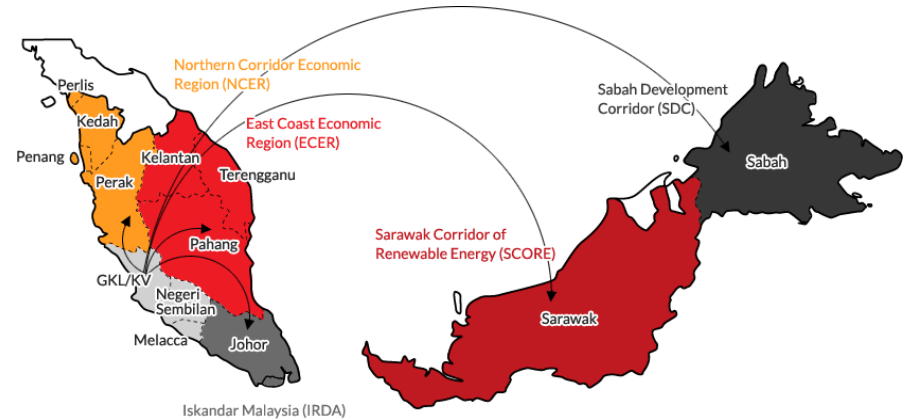
LCS SCIENCE / RESEARCH REALM

ISKANDAR MALAYSIA POLICY REALM



EMPIRICAL CASES FOR MALAYSIAN LOW CARBON CITIES

- One of Fastest growing Economic corridor regions – Iskandar Malaysia
- Federal Government Administrative centre of Putrajaya
- National Capital of Kuala Lumpur
- Integrated Oil and Gas Hub city of Pengerang

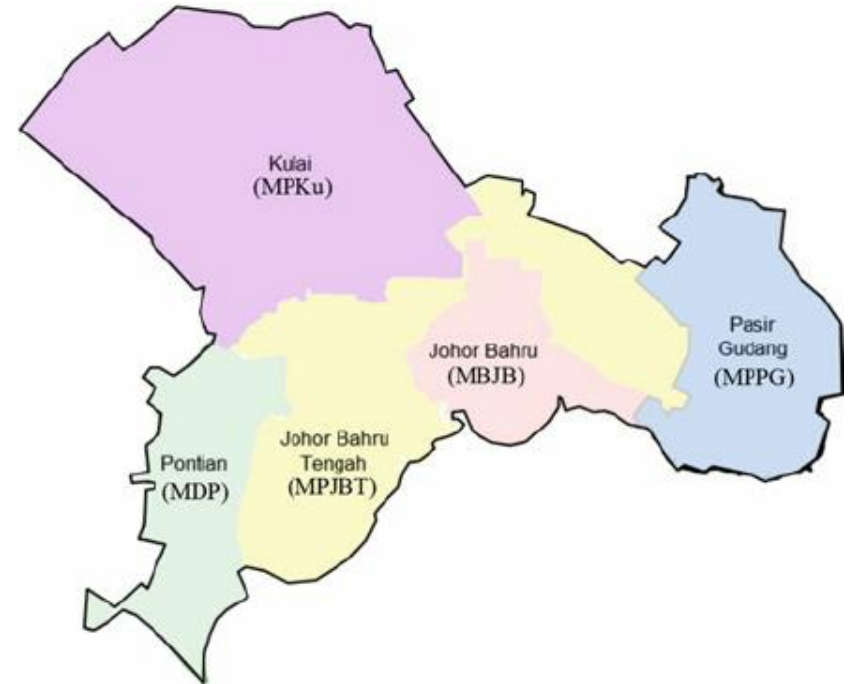


EMPIRICAL CASES FOR MALAYSIAN LOW CARBON CITIES

Fast growing region – Iskandar Malaysia

-5 Local authorities / cities in Iskandar

- Johor Bahru (Vibrant World class Cosmopolitan)
- Puteri Iskandar (Green Livable city & Creative innovation Belt)
- Kulai (Smart Integrated Logistic Hub)
- Pasir Gudang (Green & clean industry city)
- Pontian (Clean energy & Agro Bio Hub)



Iskandar Malaysia LCS 2025 Background



FLAGSHIP A

- JOHOR BAHRU CITY CENTRE**
- Central Business District (CBD) as heritage and cultural city
 - Customs, Immigration and Quarantine Complex (CIQ)
 - Johor – Singapore Causeway

FLAGSHIP B

- NUSAJAYA**
- Kota Iskandar
 - EduCity
 - Medical Park
 - International Destination Resort
 - Southern Industrial & Logistics Clusters (SILC)
 - Puteri Harbour

FLAGSHIP C

- WESTERN GATE DEVELOPMENT**
- Port of Tanjung Pelepas (PTP)
 - Tanjung Bin Power Plant
 - 2nd Link Access to Singapore
 - RAMSAR World Heritage Park
 - Tanjung Piai – Southernmost Tip of Mainland Asia
 - Maritime Centre

FLAGSHIP D

- EASTERN GATE DEVELOPMENT**
- Tanjung Langsat Industrial Complex
 - Johor Port
 - Tanjung Langsat Port
 - Pasir Gudang Industrial Park

FLAGSHIP E

- SENAI-SKUDAI**
- Senai Airport City
 - Senai High-Tech Park
 - Sedenak Industrial Park
 - MSC Cyberport City
 - Johor Technology Park
 - University Technology Malaysia (UTM)



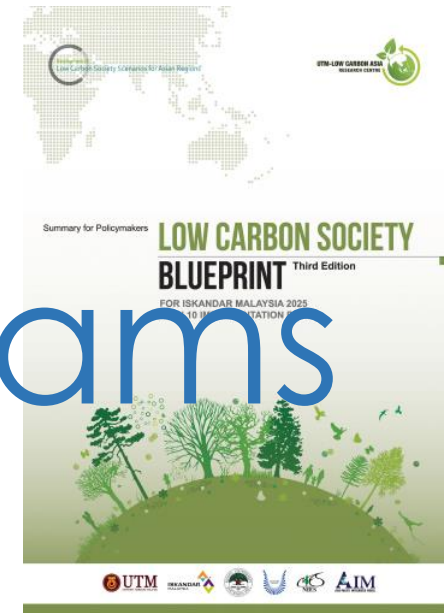
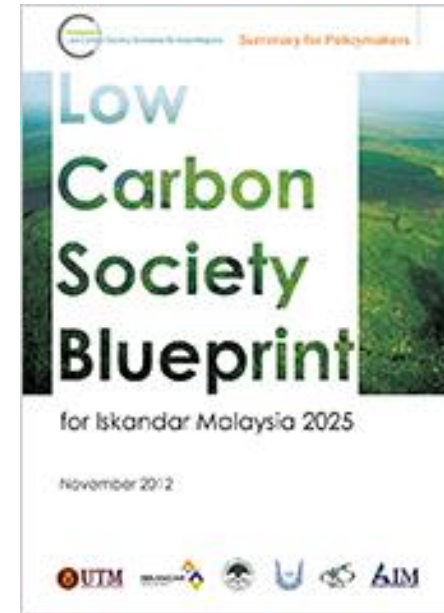
Iskandar Malaysia LCS Blueprint 2025

12

Actions

281

Programs





Iskandar Malaysia

2,216 km²

1.64 million people (2010)

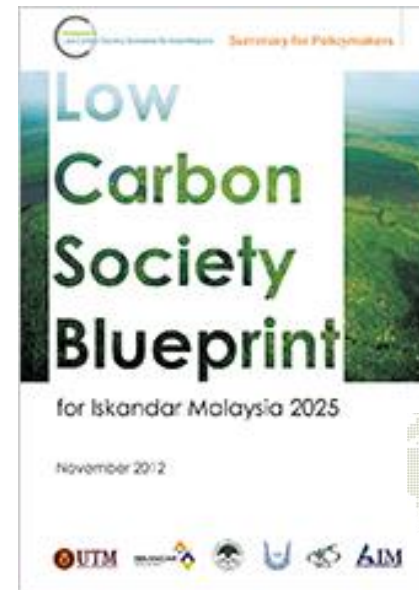
3 million people (2025)

58%

Reduction in GHG
Emissions Intensity of
GDP by 2025

Iskandar Malaysia

main southern development
corridor in Johor, Malaysia



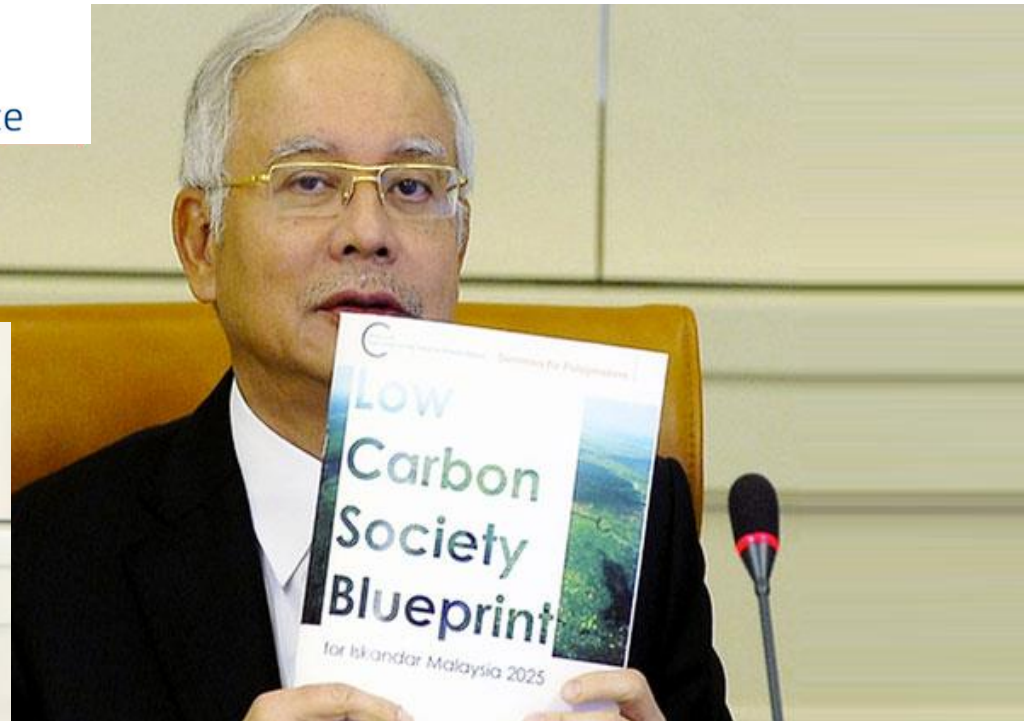
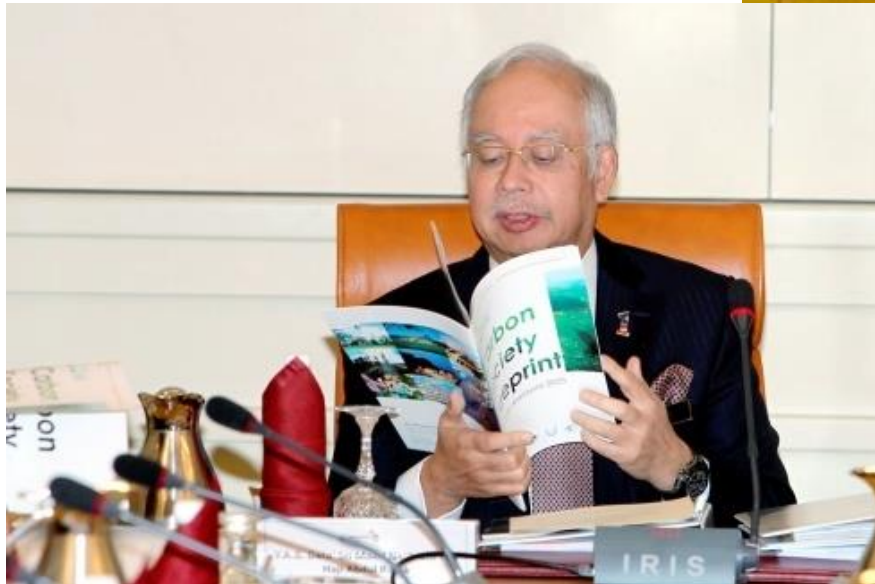
Iskandar Malaysia LCS Blueprint 2025



DOHA 2012
UN CLIMATE CHANGE CONFERENCE
COP18|CMP8

United Nations Climate Change Conference

Officially launched @ COP 18,
Doha, Qatar on 30 Nov. 2012



Launching officially endorsed by
the R.H. Prime Minister of Malaysia
on 11 Dec. 2012

Iskandar Malaysia (5 Local Authorities)



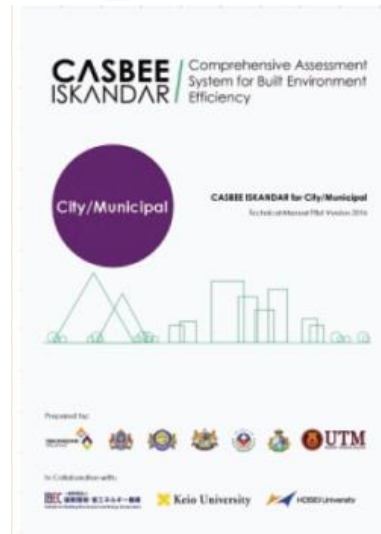
Iskandar Malaysia

main southern development
corridor in Johor, Malaysia



Iskandar Malaysia

main southern development corridor in Johor, Malaysia



Prepared by:



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

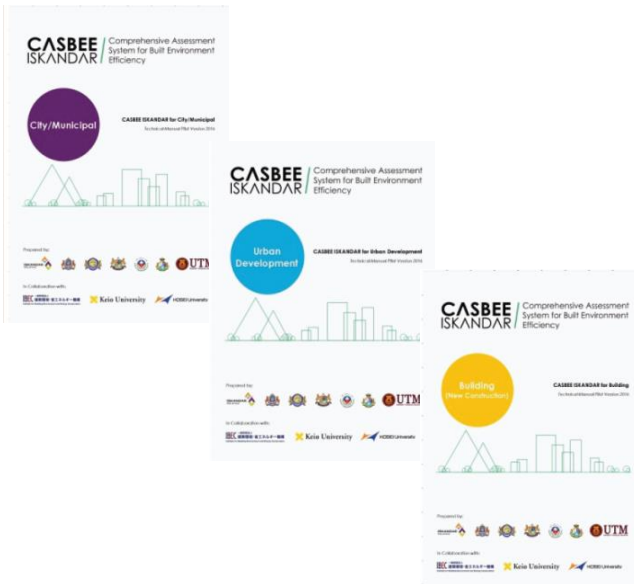
In Collaboration with:





Iskandar Malaysia

main southern development corridor in Johor, Malaysia



Supporting Documents

1. Site Plan

2. Floor Plans

3. CD with Photos to Support Application

4. Energy Bill

5. Water Bill

6. Green Building Rating System Results (LEED, GBI, CASBEE etc)

In addition to the required documentation above, applicants must also provide information about building efficiency indicators that cover the following green building criteria:

- Energy Conservation and Efficiency
- Water Conservation and Efficiency
- Materials / Reduce, Reuse, Recycle
- Biodiversity / Land Use
- Indoor Environmental Quality (IEQ)
- Renewable Energy / Green Energy Alternatives
- Liveability and Resilience

The GAIA application form is available for download at Iskandar Malaysia's official website starting 15 May 2016. All applications must be submitted:

via e-mail to:
shahrinaz@irda.com.my

or mailed to:
IRDA
G-01, Block B, Danga Bay, Jalan Skudal,
80200, Johor Bahru, Johor, Malaysia

Closing date for submissions:
All applications must reach IRDA by 5 pm, 5th July 2016

Language:
All entries should be in Malay or English.

Judging:
Assessment of eligible submissions will be made by an independent panel of professionals in the green building and construction industry. The Organiser's decision is final and no correspondence or communication will be considered following its final decision. The results and grading details are confidential and will not be shared.

www.iskandarmalaysia.com.my

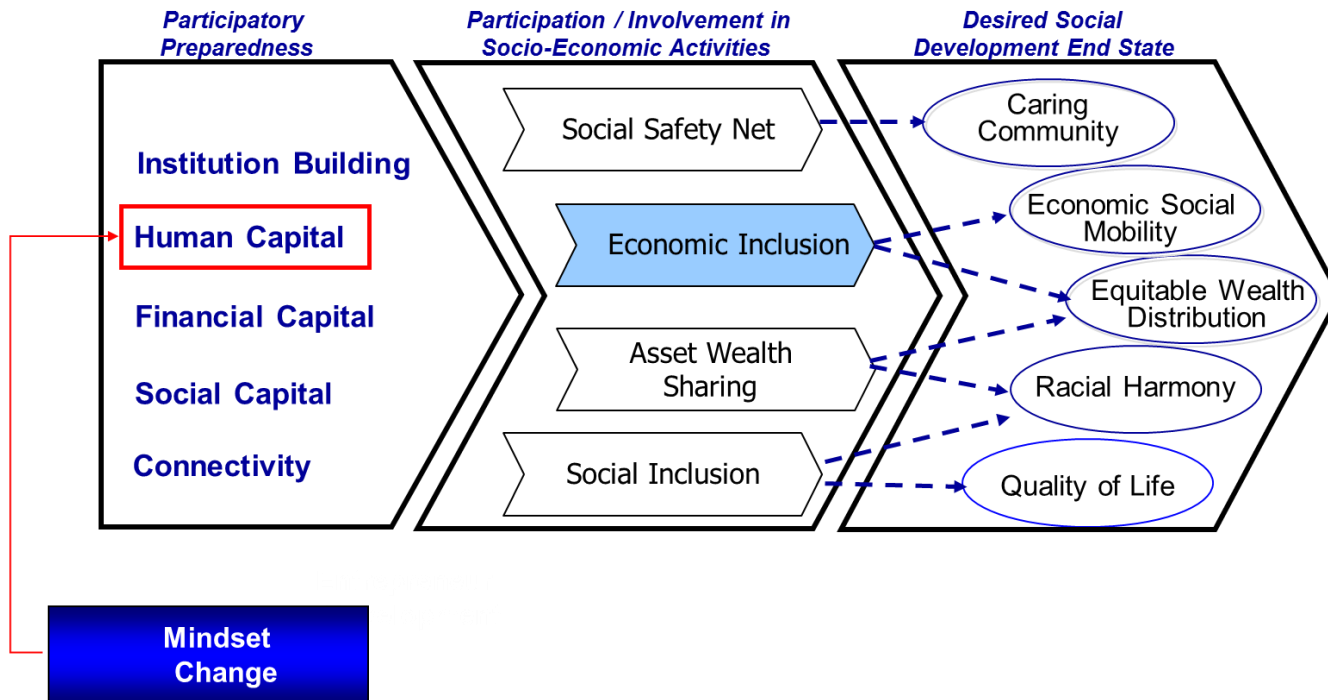
IskandarMalaysiaOfficial
 IskandarMsla
 IskandarMalaysia

Green Accord Initiative Award 2016



Mindset Change Through Sustainability

Below: Social Development Intervention Strategy

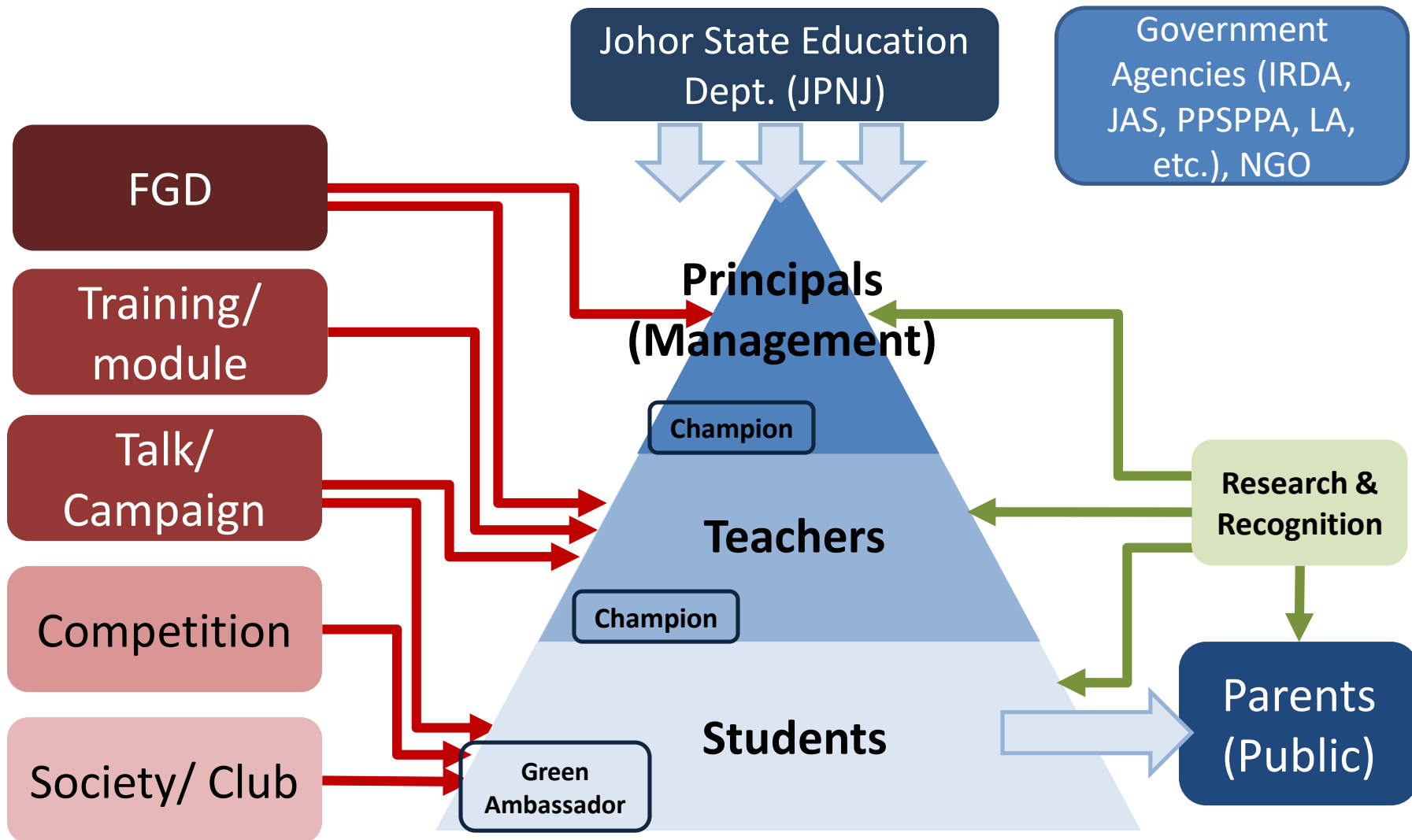


**Sustainability of
a nation is
driven by its
most important
resource...
the people of
Iskandar
Malaysia**



**A metropolis with 1st class infrastructure requires
1st class Mentality of its people to be sustainable**

Model to inculcate ESD through formal education



Linkages to UNESCO



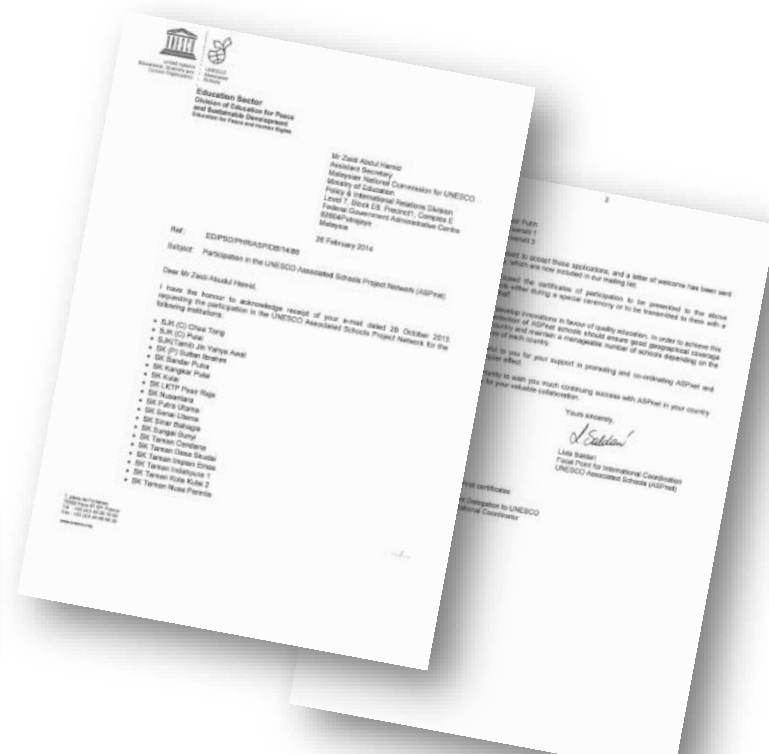
Iskandar Malaysia Unesco (Aspnet) Program



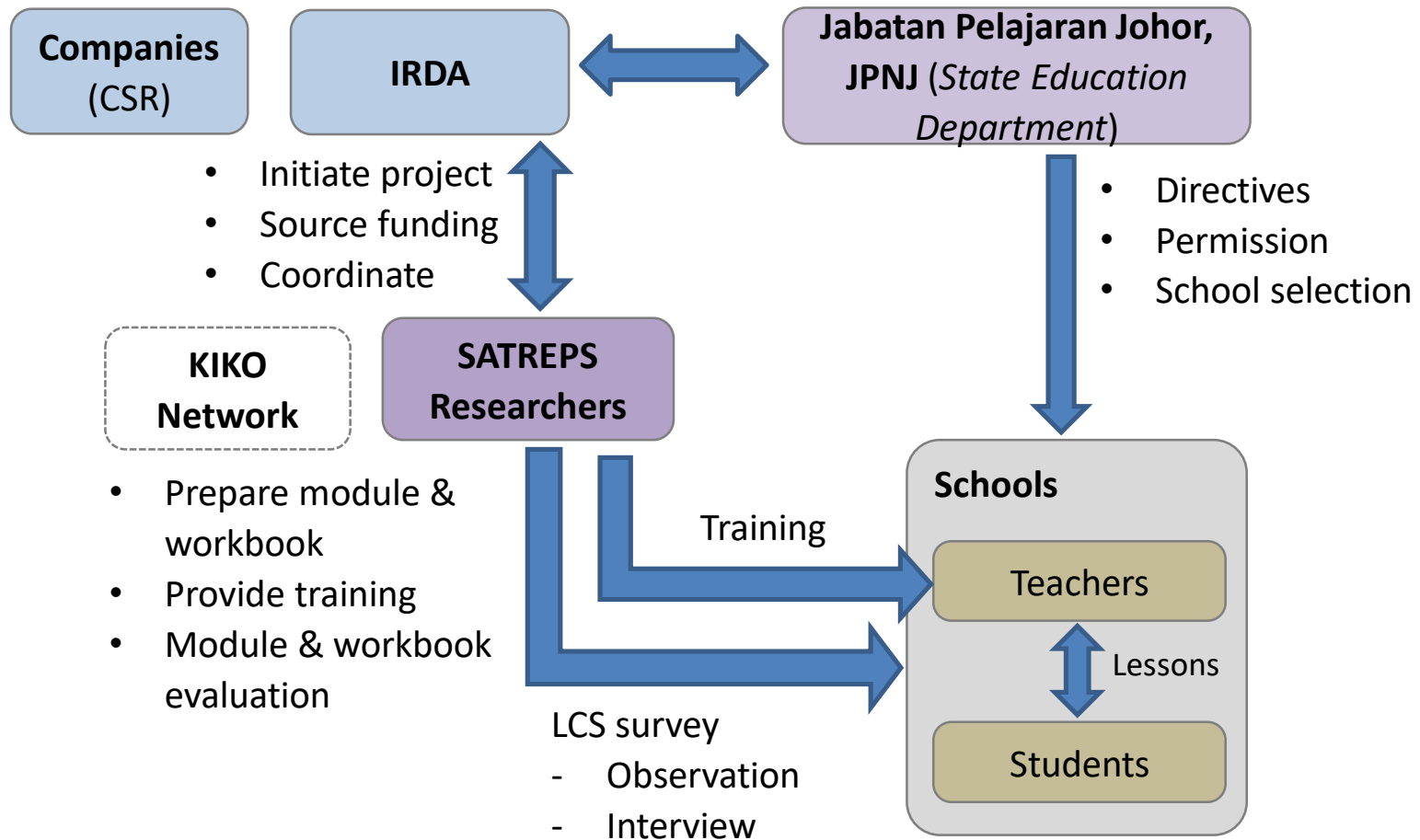
Objectives

- Understand local, national and international dimensions of problems in an increasingly complex and globalised world
- Familiarize students with the United Nations system
- Develop awareness of the importance of international cooperation when searching for possible solutions

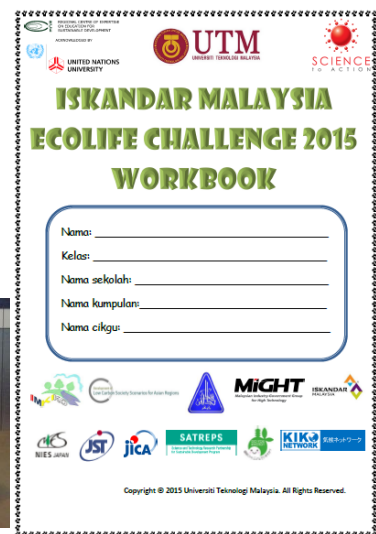
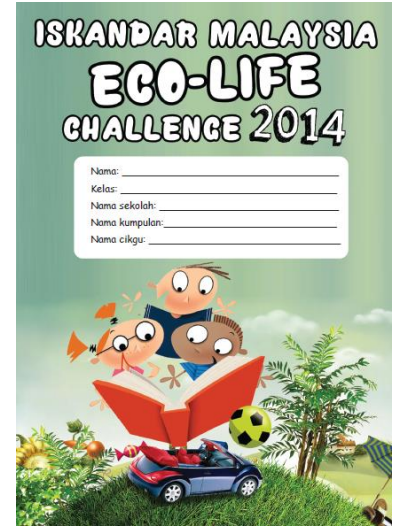
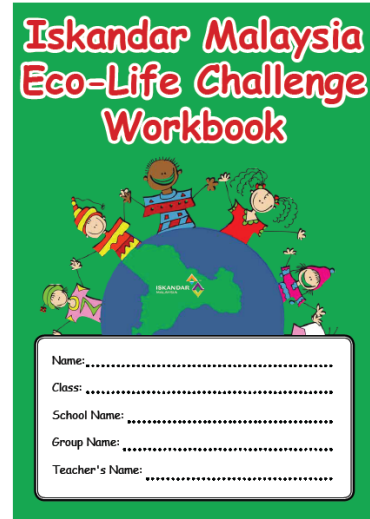
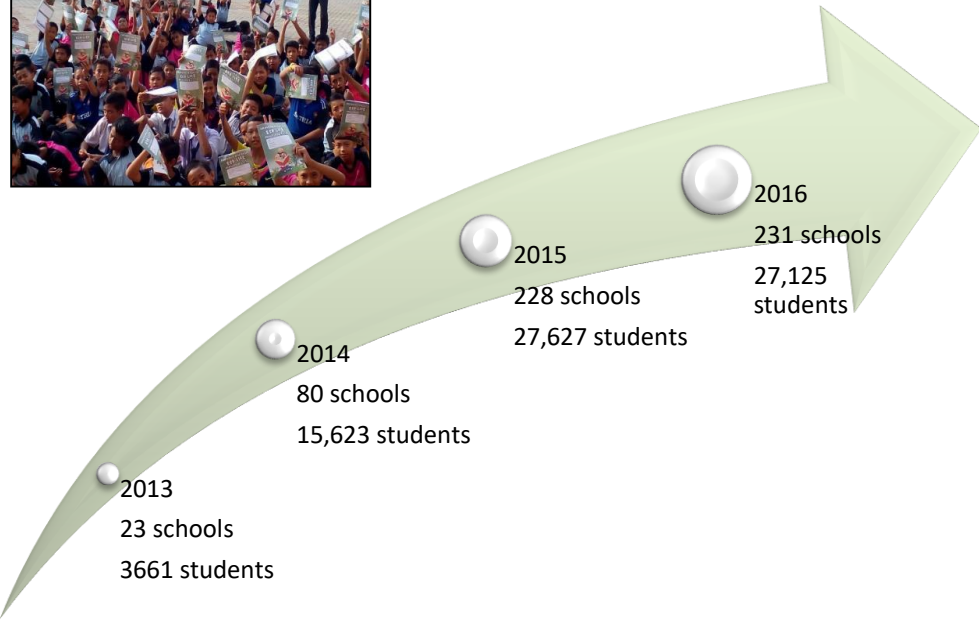
22 Iskandar Malaysia-based schools received official Aspnet (UNESCO) certification (Primary School category)



Iskandar Malaysia Ecolife Challenge



Iskandar Malaysia Eco-life Challenge



IMELC focuses on energy household accounting. School children track the energy consumption, waste generation and management, travelling choices, frugal consumption and utilizing renewable energy resources (sunlight). The aim is to raise children's awareness level on low carbon aspects.

Sustainable & Low Carbon Schools Exhibition



FELDA Taib Andak (Low carbon Village)



Ceramah Kesedaran Alam Sekitar

FELDA Taib Andak
1 November 2014
Dr Fatin Aliyah Phang



PERINGKAT	MINGGU/ BLOK	JUMLAH KUTIPAN (KG)	NOVEMBER					DISEMBER					JANUARI 2015					JUMLAH KESELU RUHAN
			1	2	3	4	Total	1	2	3	4	Total	1	2	3	4	Total	
1A	1A	1					0					0					0	
	1B	2	630.5	64			694.5				38	38	117.3	13.5	409.5	423	423	
	1C	3					71	71									71	71
	1D	4			74.5		74.5			56	56	82			65	147	277.5	
	1E	5					0					0		63.5	19	82.5	82.5	
2B	2A	1					71	71			166.3	166.3					0	237.3
	2B	2					128	128			0	0					0	128
	2C	3					0	0		318	318	53					53	371
	2D	4			38.5		38.5	20			20		173.5				173.5	232
	2E	5	116.5				116.5		38.5	497	76	611.5			201.5	201.5	929.5	
	2F	6	43	65			108				0			323	323	431		
	2G	7					34	34	45			45	132			132	211	
	2H	8					135.5	135.5				0	134.5			134.5	270	
3C	3A	1	49.5	280			329.5			37.5	37.5	95				95	462	
	3B	2			35		35			136.5	136.5						171.5	
	3C	3				0	0	21			21		47			47	68	
	3D	4					0	0		94	94						94	
	3E	5				108	108	30	135.5			165.5				165.5	273.5	
	3F	6					0	0			192.8	192.8		82		82	274.8	
	3G	7 E					0	0				0	31			31	31	
4D	4D	1	145				145							154.6	154.6	299.6		
5E	5E	1		174			174	418	109	162	689	224	499	135	89.5	947.5	1810.5	
6E	6E	1	39				39									0	39	
7G	7G	1			162		162									0	162	
10	10.5	5			31		31	166				166				0	197	
	10.7	7	69.5	151.2		39.5	260.2				26	26	37		87	124	410.2	
	10.8	8		520	4	29.5	553.5	34		145.5	31	210.5	51	111.5	324	139	625.5	
	10.9	9	21	12.5			33.5	30.5				30.5		123	329.5	61	513.5	
	10.10	10		45.5			61	106.5			192.5	71.5	264	407.5		441.5	812	
	10.11	11	133				133				169	169		11	75	86	388	
																	1192.7	

Sampah yang perlu dibuang ke tempat khas

- Kertas (A4, A5), kertas seminar, karton, bahan-bahan semulajadi
- Lumpang pencukur/floor/ kalimatang, mesin fotokopier

Apakah yang berlaku kepada bahan-bahan kitar semula yang dibuang?

Ketepatan pengiraan

Pengiraan dibayar

Bahan-bahan yang tidak boleh dikitar semula

Ketepatan pengiraan

Bahan-bahan yang tidak boleh dikitar semula

BUKU PANDUAN KITAR SEMULA FELDA Taib Andak, Kuala Johor

Tahukah anda?

Berapa banyak isi papir yang dibuang oleh ahli ahli FELDA Taib Andak?

- Setiap keluarga, setiap minggu membuang purata 15.2kg isi papir untuk hari-hari (selepas makan).
- Jika isi papir ini dibuangkan, kita dapat menghemat KECUTAN tenaga dengan menggunakan purata 2.4kg isi papir untuk hari-hari (selepas makan).
- Jika kita kumpulkan isi papir ini pada hari Sabtu, kita dapat menghemat 2.4kg isi papir.

Kita boleh lakukan sesuatu!

Amalan 3R (Reduce, Reuse, Recycle)

Kitar semula ialah satu proses melibatkan 3R atau:

- **Reduce** - Mengurangkan sampah dengan mematu peraturan semulajadi.
- **Reuse** - Menggunakan semula bahan-bahan kitar semula.
- **Recycle** - Kitar semula sampah seperti kertas, plastik, kaca, tin aluminium, besi dan sebagainya.

Kitar semula menghemat tenaga dan sumber semulajadi, mengurangkan pencemaran, melindungi alam sekitar, dan mengurangkan pengeluaran CO2 ke atmosfera.

Apakah bahan-bahan yang boleh dikitar semula?

KERTAS

- Kertas putih
- Kertas warna
- Kertas kraf
- Kertas kraft
- Kertas berpola
- Kertas berpetak
- Kertas kraf
- Kertas kraf
- Kertas kraf
- Kertas kraf
- Kertas kraf

TIN

- Tin minuman
- Tin makanan
- Tin kosmetik
- Tin farmaseutikal
- Tin kimia
- Tin elektronik
- Tin farmasi
- Tin makanan
- Tin minuman
- Tin kosmetik
- Tin farmaseutikal
- Tin kimia
- Tin elektronik
- Tin farmasi
- Tin makanan

Apakah bahan-bahan yang tidak boleh dikitar semula?

PLASTIK

- Plastik PET
- Plastik HDPE
- Plastik LDPE
- Plastik PPS
- Plastik PVC
- Plastik PS
- Plastik PU
- Plastik PE
- Plastik PP
- Plastik PA
- Plastik PB
- Plastik PC
- Plastik PM
- Plastik PD
- Plastik PE
- Plastik PP
- Plastik PA
- Plastik PB
- Plastik PC
- Plastik PM
- Plastik PD

BESI

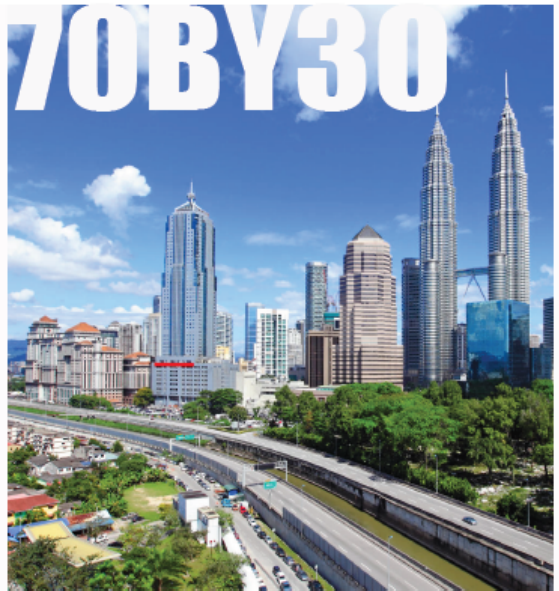
- Besi hitam
- Besi keluli
- Besi tahan karat
- Besi alloy
- Besi cast
- Besi powder
- Besi scrap
- Besi waste
- Besi slag
- Besi ash
- Besi dust
- Besi mill
- Besi plant
- Besi refinery
- Besi waste
- Besi slag
- Besi ash
- Besi dust
- Besi mill
- Besi plant
- Besi refinery

SISA POKOKAN

- Sisa pokokan
- Sisa buahan
- Sisa sayur-sayuran
- Sisa makanan
- Sisa minuman
- Sisa kosmetik
- Sisa farmasi
- Sisa elektronik
- Sisa kimia
- Sisa farmasi
- Sisa makanan
- Sisa minuman
- Sisa kosmetik
- Sisa farmasi
- Sisa elektronik
- Sisa kimia
- Sisa farmasi
- Sisa makanan



GREENER BETTER KUALA LUMPUR



BASIC PROFILE

Area
242km² (24,221 hectares)

Population
(2010) 1,674,621
(2020 Projected) 2,198,400
(2030 Projected) 2,488,399

Gross Domestic Product
RM 84,852 million (2010)
RM 227,621 million (2020)
RM 399,013 million (2030)

Location
On the central west coast of Peninsular Malaysia, enclave within the State of Selangor and Klang Valley

Function
National capital of Malaysia. One of the major cultural, commercial, education, entertainment, financial, healthcare and tourism centres of Asia.



KUALA LUMPUR LOW CARBON SOCIETY BLUEPRINT 2030



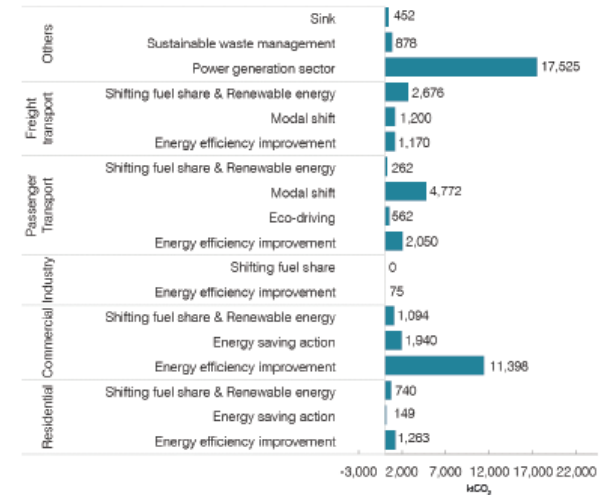
ROAD TO ACHIEVING 70 BY 30 GOAL

Current Vision KLSP 2020 Draft KLCP 2020	WORLD CLASS CITY 2020		
LCS Vision for Kuala Lumpur	WORLD CLASS SUSTAINABLE CITY 2030 70 by 30: A Greener Better Kuala Lumpur		
Triple Bottom line of sustainability	Economy	Social	Environment
Thrusts	Thrust 1 Prosperous, Robust and Globally Competitive Economy	Thrust 2 Healthy, Creative Knowledgeable and Inclusive Community	Thrust 3 Ecologically Friendly Liveable and Resilient Built Environment
Sustainable Development Goals 2030	Goals: 1,2,7,8,9,11,12,13,17	Goals: 3,4,5,10,11,12,13,16,17	Goals: 6,11,13,14,15,17
New Urban Agenda Transformative Commitments	Sustainable and Inclusive urban prosperity and opportunities for all	Sustainable urban development for social inclusion and ending poverty	Environmentally sustainable and resilient urban development
Key Principles Draft KL City Plan 2020	World-class Business Environment	World-class Working Environment	World-class Living Environment
KL Low Carbon Society Actions	World-class Governance		
	Green Growth Energy Efficient Spatial Planning Green Mobility Sustainable Energy System	Community Engagement and Green Lifestyle	Low Carbon Green Buildings Green and Blue Network Sustainable Waste Management Sustainable Water and Wastewater Management
	Green Urban Governance		

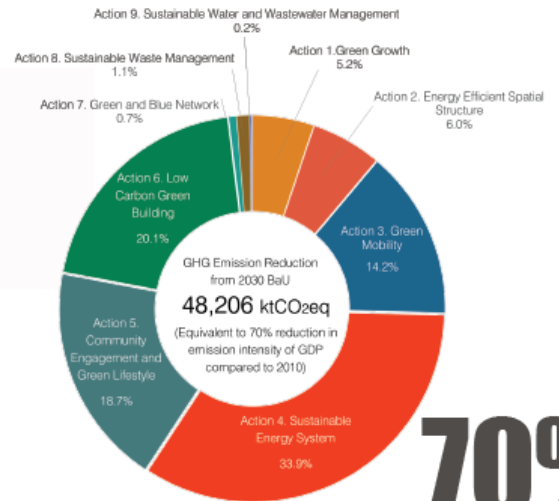
GHG EMISSION INTENSITY BY GDP



MITIGATION POTENTIAL OF KUALA LUMPUR 2030



EMISSION REDUCTION CONTRIBUTION BY ACTION



70%
Reduction in
GHG Emission
Intensity of GDP
by 2030

LOW CARBON BEST PRACTICES – C40 CITIES

Zero Net Melbourne 2020



The Climate Plan Copenhagen 2025



The Greenest City Action Plan 2020 Vancouver



One City Built to Last New York 2050



Size : 9990 km²
Population 4.53 mil
GDP: 178,000 mil USD

Size: 86 km²
Population: 590,000
GDP: 127,000 mil USD

Size: 115 km²
Population: 600,000
GDP: 64,600 mil USD

Size: 790 km²
Population: 8.55 million
GDP: 778,000 mil USD

The London Carbon Plan 2050



Tokyo Climate Change Strategy 2020



Putrajaya Green City 2025



Low Carbon Society Blueprint Iskandar Malaysia 2025



Size: 1,595 km²
Population: 8.54 mil
GDP: 511,000 mil USD

Size: 2,188 km²
Population: 13.5 mill
GDP: 925,500 mil USD

Size: 49 km²
Population: 49,452
GDP: 20,275 mil USD

Size: 2,216.34 km²
Population: 1.35 mil
GDP: 8,921 mil USD

Malaysia's **global commitment to reducing 45% CO₂ emission intensity by 2030** (based on 2005)

Climate Change /Low Carbon Initiatives

Kuala Lumpur Low Carbon Society 2030 Blueprint

National Physical Plan(NPP-3),
RMK-11,
NUP2,GTP, ETP

Kuala Lumpur
Structure Plan 2020

Kuala Lumpur City
Plan 2020

DBKL Planning
Guidelines

Planning
Control

Spatial
Development
Planning

Sustainable
Development Goal
(SDG) 2030
New Urban Agenda
(NUA) 2036

Greater KL/KV
(NKEA)(2010)

Greater KL Land
Public Transport
Master Plan 2020

DBKL Strategic Plan
2010 - 2020

ICT Strategic Plan
2015

General
(Non-Spatial)
Development
Policies

Kuala Lumpur Low Carbon Society Blueprint 2030

The Fundamental of SDG's



SDG's creates the foundation for the triple bottom line of sustainability and act as guideline for implementation of the Kuala Lumpur World Class Sustainable City 2030.

FRAMEWORK OF KL LCSSBP 2030

Current Vision KLSP 2020 Draft KLCP 2020	WORLD CLASS CITY 2020		
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	Green Mobility		Sustainable Waste Management
	Sustainable Energy System		Sustainable Water and Wastewater Management
	Green Urban Governance		

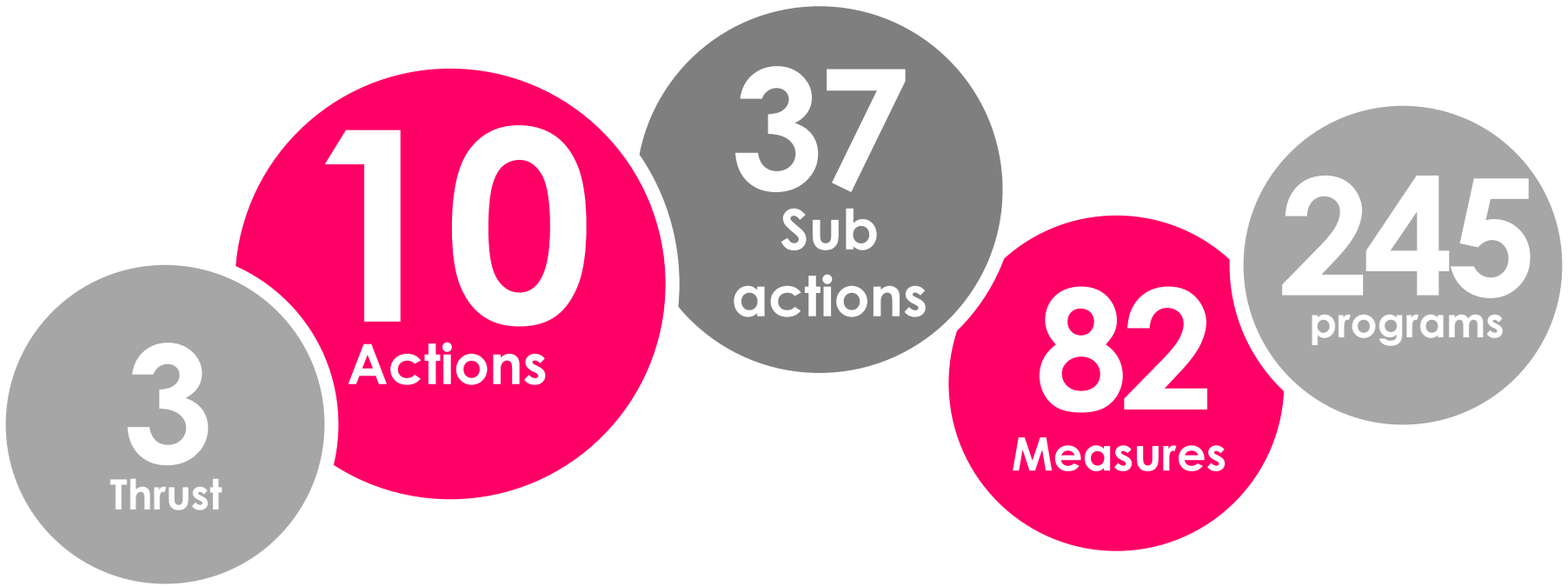
Kuala Lumpur Low Carbon Society Blueprint 2030

EMISSION REDUCTION CONTRIBUTION BY ACTION

Thrusts	Actions	Reduction (ktCO ₂ eq)	Share (%)*
Economy (59%)	Action 1 Green Growth (GG)	2,502	5.2
	Action 2 Energy Efficient Spatial Structure (SS)	2,872	6.0
	Action 3 Green Mobility (GM)	6,868	14.2
	Action 4 Sustainable Energy System (SE)	16,327	33.9
Social (19%)	Action 5 Community Engagement and Green Lifestyle (CE)	9,015	18.7
Environment (22%)	Action 6 Low Carbon Green Building (GB)	9,673	20.1
	Action 7 Green and Blue Network (BG)	316	0.7
	Action 8 Sustainable Waste Management (WM)	527	1.1
	Action 9 Sustainable Water and Wastewater Management (WW)	105	0.2
Enabler	Action 10 Green Urban Governance (UG)	0	-
Total		48,206	100

Kuala Lumpur Low Carbon Society Blueprint 2030

ROAD TO ACHIEVING 70 BY 30



KL LCSBP2030

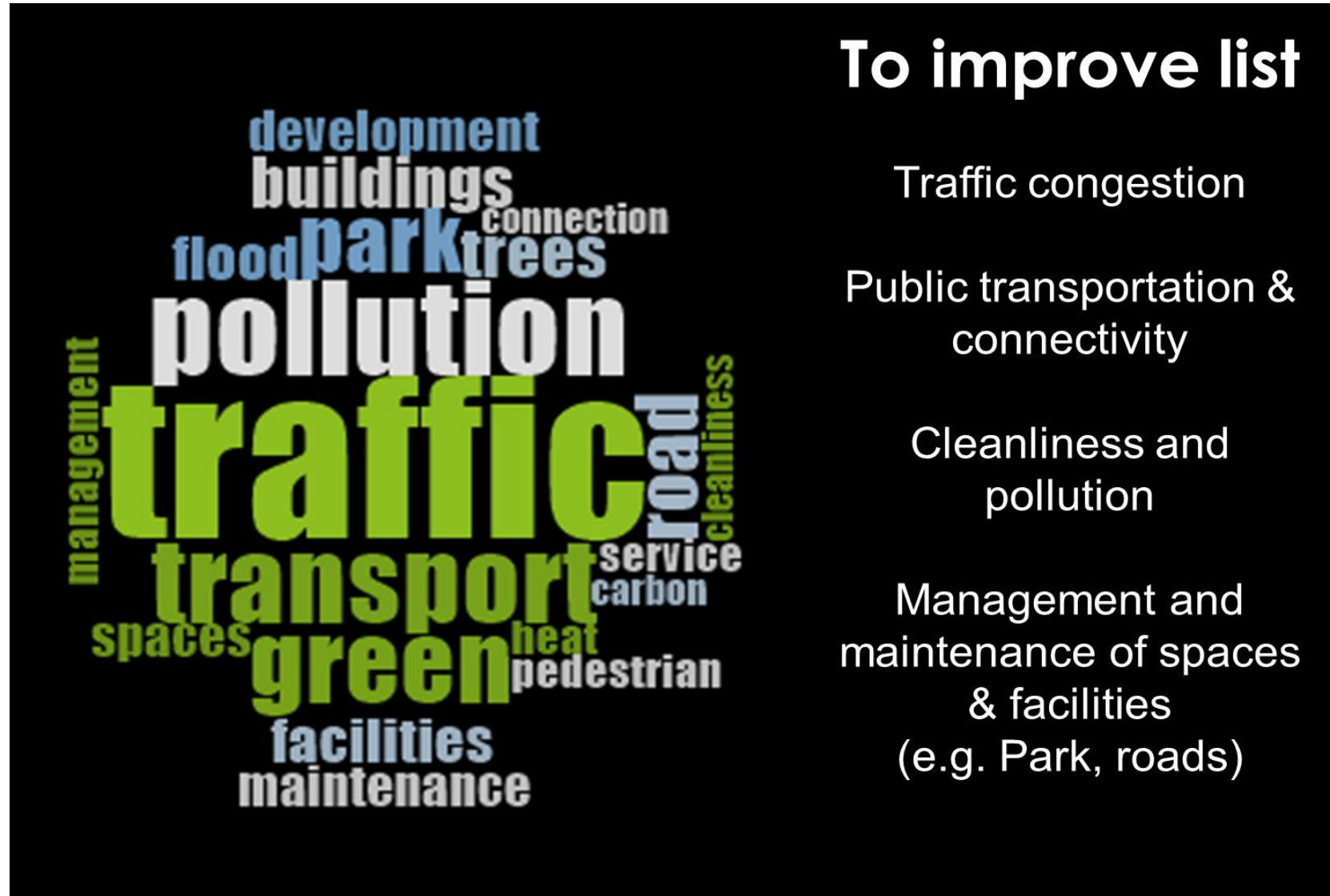
Date:
November
2017

70 by 30

KL can reduce its carbon emission intensity
by as much as 70% by 2030
(based line 2010)

OUTCOME FROM **Focus Group Discussion 1**

PROJECT EVALUATION THROUGH FGD



To improve list

Traffic congestion

Public transportation & connectivity

Cleanliness and pollution

Management and maintenance of spaces & facilities (e.g. Park, roads)

OUTCOME FROM **FGD2 – Wish list/ programs**

ROADMAP OF KL LCSBP 2030

WHAT?

Action, sub-action, measures and programs in Kuala Lumpur Low Carbon Society Blueprint 2030

To **identify implementation timeline for each programs** based on the result of ranking in the previous FGD (FGD2).

WHEN?

The **timeline of implementation are arranged into three; short term (2015-2020), medium term (2021-2025) and long term (2026-2030)**

Based on FGD2 feedbacks, **the result of ranking are use to indicate the scores (high, medium, low)** for each program.

WHO?

To **identify potential actor/ caretaker** for each program and supporting agencies (Office in charge/ Supporting agency/ implementer.

OUTCOME FROM **FGD 3**

ROADMAP OF KL LCSBP 2030

Responsible KLCH Dept. :

KLCH department with primary responsibility for initiating, coordinating, liaising with relevant external agencies, monitoring, and/or approving implementation of programs

Partners:

Technology providers, funding agencies or entities, and relevant government agencies with approving authority for, and/or statutory duty of regulating, facilitating and overseeing implementation of programs

Implementers:

Agencies, entities and/or parties that implement, or are needed to implement, programs due to the statutory duty, ownership rights, institutional responsibility, and/or effective serving of communal interests



AUGUST 2017

KUALA LUMPUR: LOW CARBON SOCIETY'S PROGRAMMES



Transportation

- Rail system
- Bicycle lane
- Bus system
- Pedestrian Network



Energy

- Energy –efficient buildings
- Euro5 NGV for Public Transport
- B10 Trial Project



Buildings

- Green Building Index (GBI)
- Energy Management (KLCH Tower 1)



Infrastructure & Digital Technology

- Integrated Transport Information System (ITIS)
- LED Street Lanterns



Solid Waste

- Reduce Reuse Recycle 3R program



Water

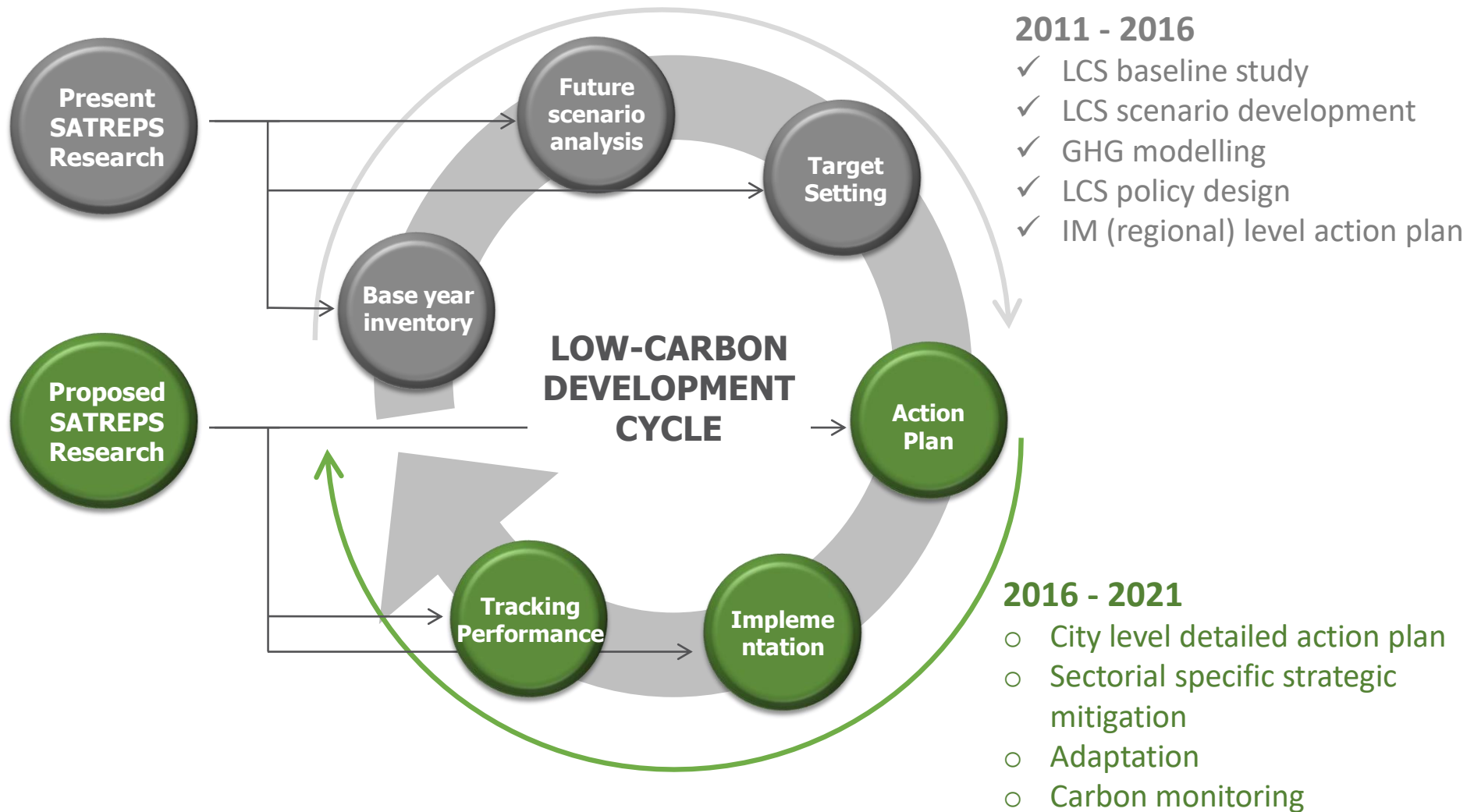
- River of Life (ROL)
- Rain water harvesting



Environment

- Open spaces
- Tree Planting
- Vertical green
- Community garden
- Preserving Forest
- Laneway projects

THE IMPORTANCE OF IMPLEMENTATION AND MONITORING



FINDINGS

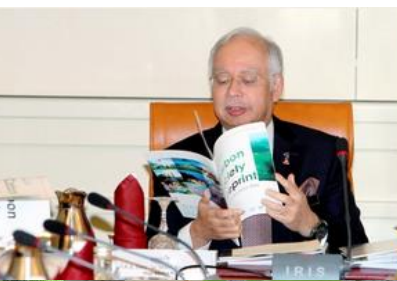
The findings showed that there is a **concrete and practical steps for low carbon transformation for developing countries.**

Low carbon and resilient development initiatives can be strategically **integrated with the existing development agenda** to further promote urban sustainability.

"Science to Action" (S2A) is the way forward towards creating low carbon futures, i.e. ensuring good, **scientifically grounded and community-rooted LCS policies are materially acted upon**, yielding real cuts in GHG emissions with simultaneous **socioeconomic co-benefits** for the *people*.

Consideration are

- existing **policy direction, geographical setting, political cultural, socio-economic, financial capacity** and human capital are essential for **climate change plan formulation.**



PM and MB Johor launched the Low Carbon Action Plans on Dec 15 2015 during Meeting of Authority in Putrajaya



Johor Bahru Low Carbon Society in the Making (2015 Flashback)



Low Carbon Action Plans for 5 local authorities in Iskandar Malaysia @ COP 21, Paris
Placing 5 LAs of Iskandar Malaysia in world agenda
By CE IRDA on behalf of MB Johor – 7 Dec 2015

The 5 local authorities in Iskandar region - Low Carbon Society in the Making



Low Carbon Action Plans for 5 local authorities in Iskandar Malaysia @ Kota Iskandar
Officially Handed Over to Datuk Bandar and YDPs of 5LAs/PBTs
By MB Johor – 25 Feb 2016

UTM

**LOW CARBON ASIA
RESEARCH CENTRE**



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

**UTM-LOW CARBON ASIA
RESEARCH CENTRE**



REGIONAL CENTRE OF EXPERTISE
ON EDUCATION FOR
SUSTAINABLE DEVELOPMENT



ACKNOWLEDGED BY



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Science and Technology Research Partnership
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RESEARCH PARTNERS



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UNIVERSITY**



OKAYAMA
UNIVERSITY



National Institute for
Environmental
Studies

IGES

Institute for Global
Environmental Strategies



ECONRASE



PLANMalaysia



SAJIS PROFESOR
NEGARA

ENGINEERING TECHNOLOGY AND
BUILT ENVIRONMENT CLUSTER



CLIENTS



ISKANDAR
REGIONAL
DEVELOPMENT
AUTHORITY



北九州市
CITY OF KITAKYUSHU



**ECO-IDEAL
CONSULTING SDN BHD**

Thank you for your attention!

Thank You Terima Kasih 谢谢 धन्यवाद ありがとう

Please contact us

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