



Low Carbon City Policies & Implementation Framework

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**MALAYSIA LOW CARBON CITIES CONFERENCE 2021 (MyL3C)
Empowering Cities Towards a Low Carbon Pathway
13th July 2021**

PRESENTATION OUTLINES

- Introduction
 - Urbanisation issues
 - Urban Planning
- Low Carbon Cities
 - Strategic Framework for Malaysia
- Low Carbon City Policies
 - Guiding Policies & Documents in Sustainable Development
 - Malaysian Cities Low Carbon Agenda & Action Plans
- Low Carbon Cities Framework
 - Low Carbon Cities 2030 Challenge
- Way Forward

URBANISATION ISSUES

The world is becoming increasingly urbanized. Since 2007, more than half the world's population has been living in cities, and that share is projected to rise to **68 percent by 2050**.
(*World Cities Report 2020*)

Causes of Urbanisation

Employment Opportunities

Education

Social Benefits and Services

Modernization and Changes in the Mode of Living

Impacts of Urbanisation

Traffic congestion

Air / Noise pollution

Urban Heat Island

Social problem (crime)

Health

Access to resources (water)

WHY URBAN PLANNING IS IMPORTANT?

Organised and planned development of cities

Offers better quality of life

Aids economic growth and economic development

Environmental sustainability

Makes cities resilient

Better infrastructure & sustainable form of development

Easy access to educational and health facilities

Good and efficient public transport system

Efficient & reliable waste management system

More jobs and other economic opportunities

MALAYSIA'S COMMITMENT IN SUSTAINABLE DEVELOPMENT – GUIDING POLICIES, PLANS & DOCUMENT

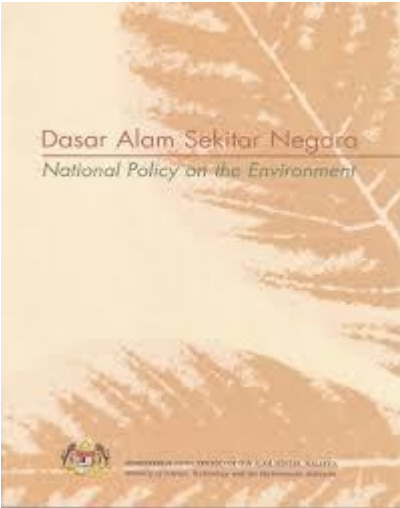
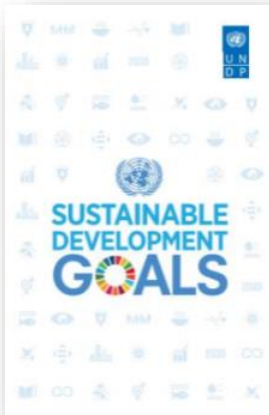
SUSTAINABLE DEVELOPMENT GOALS



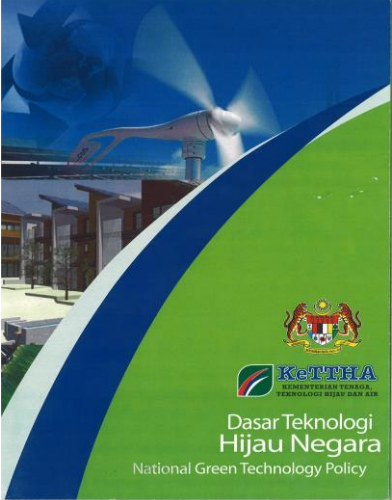
Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

3 Core Elements:

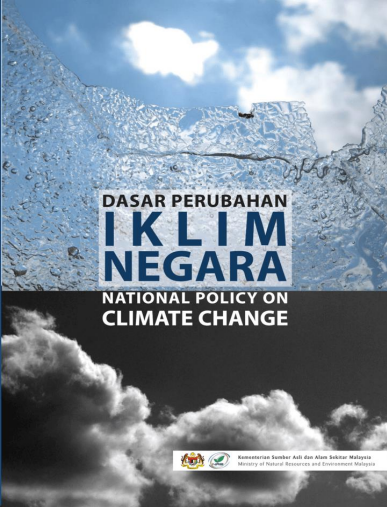
- ❖ Economic Growth
- ❖ Social Inclusion
- ❖ Environmental Protection



National Policy on Environment



National Green Technology Policy (2009)



Climate Change Policy (2009)



National Urbanisation Policy 2 (2019)



Green Technology Master Plan (2017)



3rd National Physical Plan

Dasar Teknologi Hijau Negara
National Green Technology Policy



Dasar Perubahan Iklim Negara
(National Policy on Climate Change)



Rancangan Fizikal Negara 3
(National Physical Plan 3)

Dasar Perbandaran Negara 2
(National Urbanization Policy 2)

2009

GREEN TECHNOLOGY MASTER PLAN MALAYSIA 2017 - 2030



Rancangan Struktur Negeri
(State Structure Plan)

Rancangan Tempatan Daerah
(District Local Plan)

Garis Panduan Perancangan Bandar Rendah Karbon
(Low Carbon City Planning Guidelines)

PLANMalaysia
(JABATAN PERANCANGAN BANDAR DAN DESA)

Low Carbon City Action Plan / City Climate Action Plan
(Guided by / Aligned with NLCCMP)

LOW CARBON CITIES FRAMEWORK

Version 1: 2011 Version 2: 2017

LOW CARBON CITY CHALLENGE 2030 (LCC2030)

LOW CARBON CITIES MASTERPLAN

July 2021

Policy Context on Low Carbon Cities in Malaysia
(aligned with existing policies & plans)



DEFINITION: LOW CARBON CITY

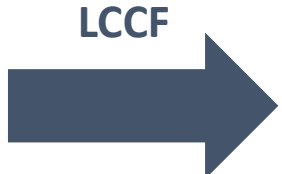
- A Low Carbon City is a city that implement low carbon strategies to meet its environmental, social and economic needs.
- The city measures, manages and mitigates its carbon emissions to reduce its contribution to climate change.

LCCF: WHAT IS IT ALL ABOUT?

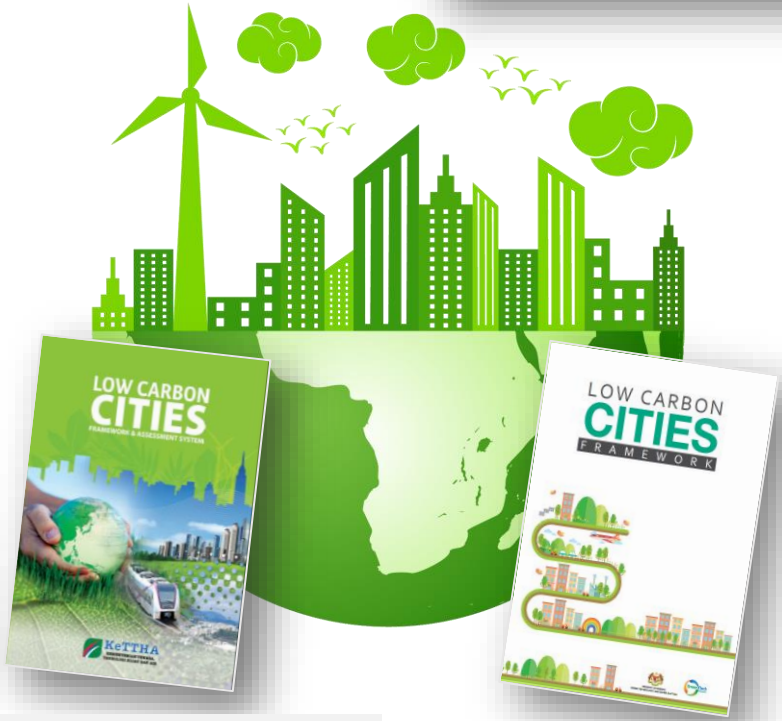


TO GUIDE STAKEHOLDERS TO LEAD BY EXAMPLE & IMPLEMENT LOW CARBON CITIES EFFORT

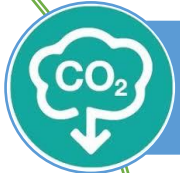
All cities in Malaysia:
**Municipalities,
Developers,
Universities**



**CONTRIBUTE TO
LOW CARBON AND
SUSTAINABLE
DEVELOPMENT**



OBJECTIVE



To encourage & promote the concept of low carbon cities and townships in Malaysia.



To increase the compatibility of cities/townships with their local natural system.



To guide cities in making choice/decisions towards greener solutions.

LCCF Version 1 launched :
8 September 2011

LCCF Version 2 released
October 2017

LOW CARBON CITIES FRAMEWORK

- 41 Low Carbon Cities Performance Criteria

15 Performance Criteria

4 Elements for GHG
Reductions in Cities

URBAN ENVIRONMENT

Development within defined urban footprint : 1-1

 Infill development : 1-2

Development projects within transit nodes and corridor : 1-3

 Brownfield and Grey field redevelopment : 1-4

 Hill slope development : 1-5

 Mixed-use development : 2-1

 Compact development : 2-2

 Road and parking : 2-3

Comprehensive pedestrian network : 2-4

Comprehensive cycling network : 2-5

Urban Heat Island (UHI) effects : 2-6

Preserve natural ecology, water body and bio-diversity : 3-1

 Green open space : 3-2

 Number of trees : 3-3

URBAN INFRASTRUCTURE

Land take for infrastructure and utility services : 1-1

 Earthworks management : 1-2

 Urban storm water management : 1-3

Construction waste management : 2-1

 Industrial waste management : 2-2

Household solid waste management : 2-3

 Energy consumption : 3-1

 Renewable Energy : 3-2

Site wide district cooling system : 3-3

Efficient Water Management : 4-1

ENERGY

MOBILITY

WATER

WASTE

GREENERY

5 Direct
Measured
Elements
(Under
LCC2030
Challenge)



URBAN TRANSPORTATION

1-1: Classified Traffic Volume Urban Road Network

1-2: Vehicle-km of Travel by Modes

2-1: Public Transport Ridership

2-2: Public Transport System Improvement and Coverage

3-1: Modal Share of Private, Public, and Non-Motorised
Transport

4-1: Use of More Fuel-Efficient Vehicles for Passenger
Vehicles and Green Freight Transport

4-2: Number of Charging Stations

5-1: Performance of Road Links and Junctions

5-2: Average Link Speeds and Journey Speeds

6-1: New Development and Redevelopment Schemes
Incorporating TOD Concept

6-2: Walking and Cycling Facilities to Support Access and
Mobility to/from Public Transit Nodes

BUILDING

1-1: Active and passive designs

1-2: Operational energy consumptions

1-3: Operational water consumptions

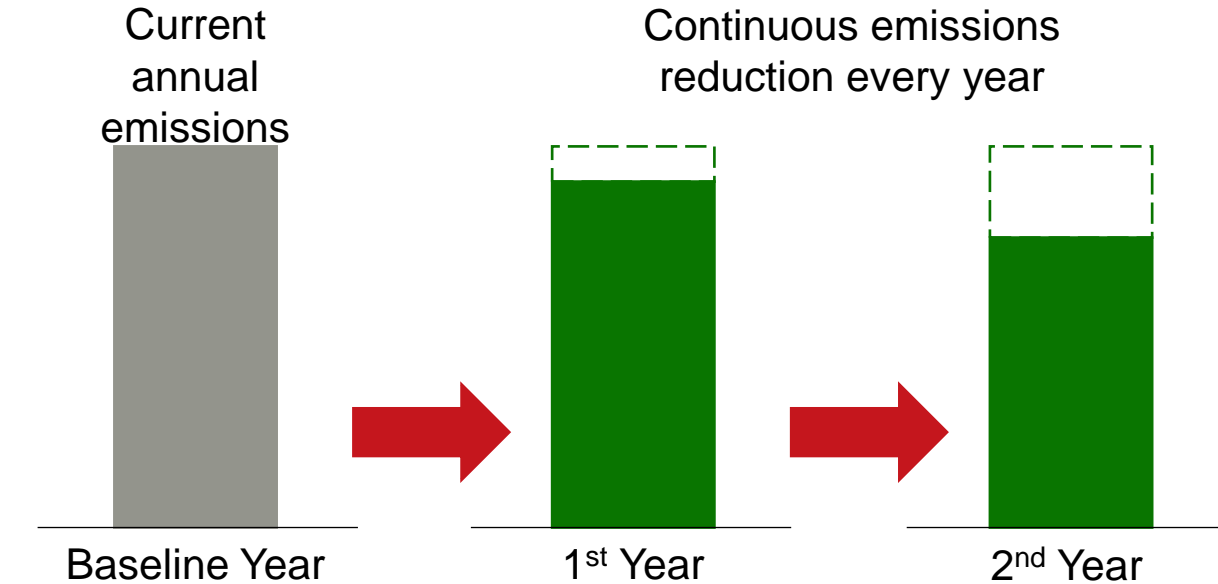
1-4: Preserve existing building stock by retrofitting

2-1: Energy management system

2-2: Facility management

RECOGNISING YOUR EFFORTS THROUGH LOW CARBON CITIES 2030 CHALLENGE (LCC2030C)

ASSESSMENT



4 step process:



RECOGNITION

Provisional Certificate

Develop baseline and pledge commitment to reduce emissions

Diamond Recognition

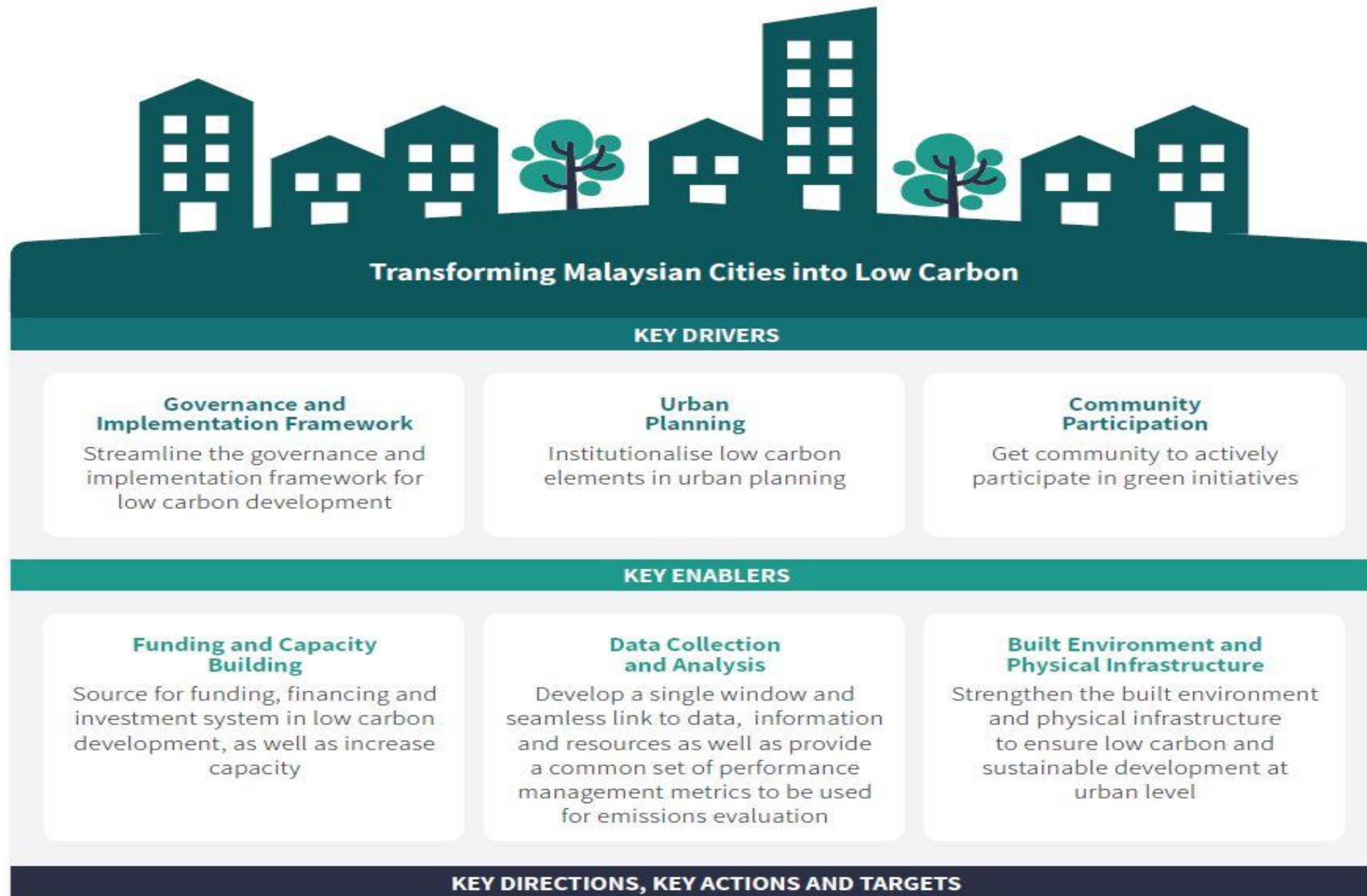
Achieve emissions reduction for each element based on the scale below:

◆	1 Diamond	1% reduction
◆ ◆	2 Diamonds	5% reduction
◆ ◆ ◆	3 Diamonds	10% reduction
◆ ◆ ◆ ◆	4 Diamonds	25% reduction
◆ ◆ ◆ ◆ ◆	5 Diamonds	45% reduction

200 Low Carbon Zones (5D) by 2030
1,000 Low Carbon Partners (5D) by 2030

WAY FORWARD

Rolling Out National Low Carbon Cities Master Plan (NLCCM)



National Low Carbon Cities Masterplan


Measure - Manage - Mitigate



WAY FORWARD


3M Approach in NLCCM

MEASUREMENT



of the GHG emissions by establishing a baseline and providing periodic monitoring

MANAGEMENT



of the low carbon development in terms of policy, targets and planning

MITIGATION



of the GHG emissions through design and implementation of programmes and projects





Thank you

