International Urban Cooperation Asia

Final Workshop in Malaysia

Key Messages and Lessons Learned from Developing Climate Change Action Plans in Malaysia

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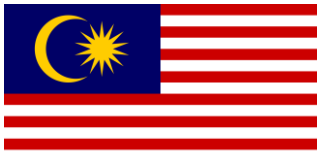
MALAYSIA AND CLIMATE CHANGE

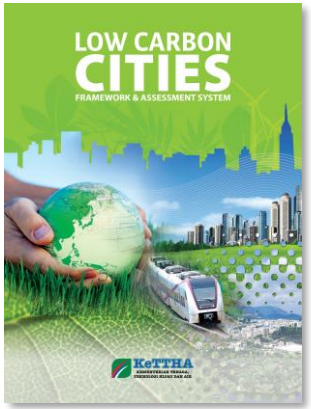


United Nations
Framework Convention on
Climate Change

NATIONAL COMMITMENT

NDC Malaysia intends to reduce its greenhouse gas (GHG) **emissions intensity of GDP by 45% by 2030** relative to the emissions intensity of GDP in 2005. This consist of 35% on an unconditional basis and a further 10% is condition upon receipt of climate finance, technology transfer and capacity building from developed countries.

Low Carbon Cities Framework (LCCF)



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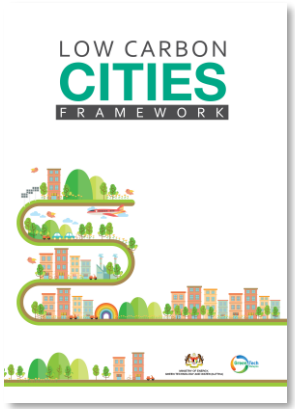

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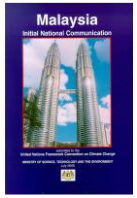
LCCF is an initiative by the Ministry of Environment and Water (KASA) to help our cities shift towards a low carbon future.



Initial National Communication was presented to the United Nations Framework Convention on Climate Change (UNFCCC).

National Policy on Climate Change is formulated in 2009.

(COP15 Copenhagen)
Malaysia is aspired to voluntarily cut down 40% greenhouse gas (GHG) emissions intensity of GDP by 2020 as compared to 2005 level.

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

(COP21 Paris)
Malaysia intends to reduce the GHG emissions intensity of GDP up to 45% by 2030 relative to the emissions intensity of GDP in 2005.

Timeline

2000 **2010** **2020**

Initiatives to increase the share of use of **non-fossil fuel energy** via the **Ninth Malaysia Plan (2006-2010)**.

The **National Biofuel Policy 2006** already laid the groundwork for the development and use of biofuels.

Introduction of a **feed-in-tariff (FiT)** mechanism in conjunction with the **National Renewable Energy Policy and Action Plan (2010)**

Green Technology Financing Scheme (GTFS) is initiated in 2010

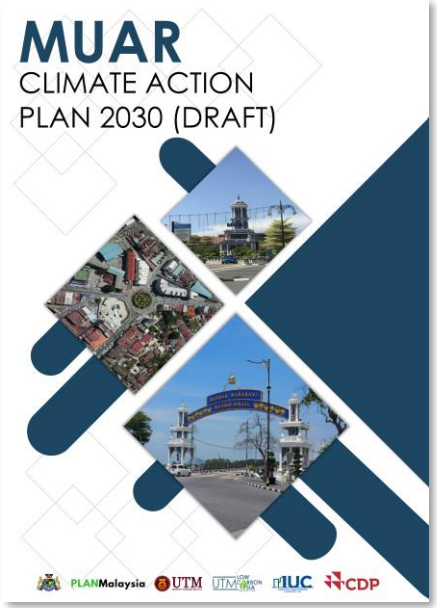
The **Tenth Malaysia Plan (2011-2015)** focussed on **sustainable growth** and introducing **mitigation strategies to reduce emissions of GHG.**

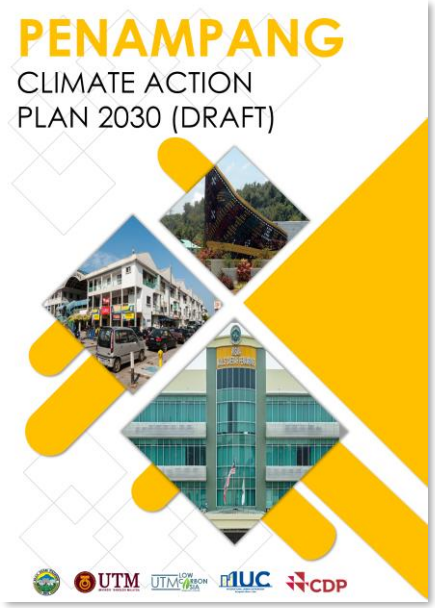
The **Eleventh Malaysia Plan (2016-2020)** focuses on pursuing **green growth for sustainability and resilience**.

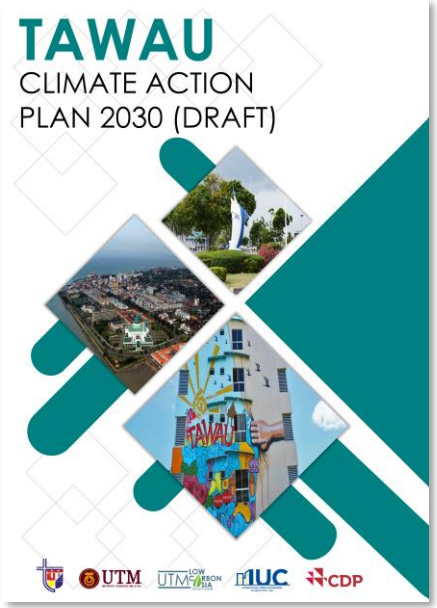
ELEVENTH MALAYSIA PLAN 2016-2020
ANCHORING GROWTH ON PEOPLE

The **National Physical Plan 3 (2016)** begins the incorporation of climate change into the countrywide spatial planning framework.

CLIMATE ACTION PLAN (CAP): MALAYSIAN PILOT CITIES







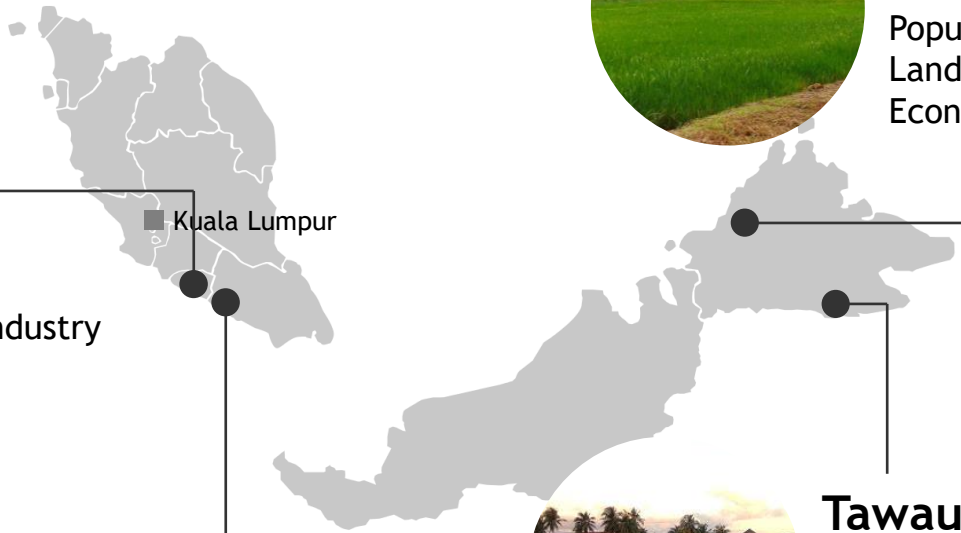
BASIC PROFILE PARTICIPATING PILOT CITIES

Hang Tuah Jaya

Population: 190,529 (2018)
Land Area: 145 km²
Economy: Service, Tourism, Industry

Muar

Population: 281,500 (2017)
Land Area: 1,392 km²
Economy: Industry, Tourism



Penampang

Population: 145,630 (2017)
Land Area: 425 km²
Economy: Agriculture, Service

Tawau

Population: 499,200 (2017)
Land Area: 6,125 km²
Economy: Agriculture and Fisheries, Industry, Tourism

GHG EMISSIONS & CLIMATE HAZARDS

	Hang Tuah Jaya	Muar	Penampang	Tawau
GHG Emissions	**1,030** ktCO2eq (2018)	**1,620** ktCO2eq (2017)	**455** ktCO2eq (2017)	**1,561** ktCO2eq (2017)
GHG Emissions per capita	**5.4**	**5.8**	**3.1**	**3.1**
GHG Emissions per unit land area (km^2):	**7,105**	**1,164**	**1,072**	**255**
Climate Hazards	**Monsoon** **Drought** **Flood** *(Flash)* **Vector-borne Disease**	**Monsoon** **Forest Fire** **Flood** (Flash, River, Coastal) **Salt Water Intrusion** Vector-borne Disease	**Rainstorm** **Tropical Storm** **Flood** (Flash, River) **Landslide**	**Tropical Storm** **Storm Surge** **Flood** (Flash, River) **Vector-borne Disease**

TARGET AND GOALS

Hang Tuah Jaya

Mitigation Target

45% emission intensity reduction by 2030 compared to base year 2018

Adaptation Goals

Goal 1 Reduce **property damage due to monsoon** and flooding by 50% by 2030 compared to 2017

Goal 2 Reduce **number of days of water rationing** caused by drought by 50% by 2030 compared to 2017

Goal 3 Reduce **the number of dengue cases** by 50% by 2030 compared to 2017 level

Muar

Mitigation Target

63% emission intensity reduction by 2030 compared 2010

Adaptation Goals

Goal 1 Reduce **property damage due to monsoon** and flooding by 50% by 2030 compared to 2017

Goal 2 To **achieve zero shutdown of water treatment** plant by maintaining salinity of Muar River below 0.5ppt (part per thousand) at the intake point

Goal 3 Minimise **the occurrence of human-induced forest fire** by 30% by 2030 compared to 2017 level

Goal 4 Reduce the number of dengue cases by 50% by 2030 compared to 2017 level

TARGET AND GOALS

Penampang

Mitigation Target

45% emission intensity reduction by 2030 compared to base year 2010

Adaptation Goals

Goal 1 Reduce property damage due to rainstorm and flooding by 50% by 2030 compared to 2017

Goal 2 Reduce downtime of utilities caused by tropical storms by 30% by 2030 compared to 2017

Goal 3 Achieve **zero unregulated hill cutting** and deforestation by 2030

Tawau

Mitigation Target

45% emission intensity reduction by 2030 compared to base year 2010

Adaptation Goals

Goal 1 Reduce **property damage due to rainstorm and flooding by 50%** by 2030 compared to 2017

Goal 2 Reduce **downtime of utilities caused by tropical storms** by 30% by 2030 compared to 2017

Goal 3 Reduce the number of dengue cases by 50% by 2030 compared to 2017 level

THEME BASED CROSS SECTORAL APPROACH

THEME BASED Actions

- **Green Economy**
- **Sustainable Public Transport and Logistic**
- **Climate Responsive Infrastructure**
- **Sustainable Harnessing of Resource**
- **Sustainable Low Carbon Community**
- **Smart Growth**
- **Conservation of Biodiversity**
- **Walkable City /Green Commuting**
- **Prepared and Connected Community**

Low Carbon City Framework (LCCF+S)

Environment

Transport

Building

Infrastructure

Society

THEME BASED CROSS SECTORAL APPROACH

Hang Tuah Jaya

39
Planned Actions

CAP Strategy
I. Green Economy (14)
II. Sustainable Public Transport and Logistic (10)
III. Climate Responsive Infrastructure (8)
IV. Sustainable Community (7)

Penampang

43
Planned Actions

CAP Strategy
I. Sustainable Harnessing of Resource (14)
II. Green Commuting (11)
III. Resilient Infrastructure (8)
IV. Community Based Climate Response (10)

Muar

42
Planned Actions

CAP Stategy
I. Sustainable Energy /Green Industry (11)
II. Smart Growth (16)
III. Conservation of Biodiversity (7)
IV. Resilient Low Carbon Community (8)

Tawau

35
Planned Actions

CAP Strategy
I. Low Carbon Economy (17)
II. Walkable City (8)
III. Green and Resilient Infrastructure (6)
IV. Prepared and Connected Community (6)

RESULTS

(1) HOW HAS IUC ASIA SUPPORTED YOUR CITY IN ACHIEVING THE SDGS AND PARIS AGREEMENT GOALS?

The Paris Agreement (PA) helps to bring all nations/***cities into a common cause to reduce greenhouse gas emissions rapidly*** and to ***strengthen the ability of countries to build resilience and adapt to the impacts of climate change***, these will help to achieve of ***SDG Agenda***. In In this project, IUC supported pilot cities in achieving PA and SDG in:

1) ***Mainstreaming climate action*** initiatives into respective development plan;

2) ***Capacity Building***;

3) ***Benchmarking using CRF***; and

4) Opportunities for ***City and City Collaboration***.

RESULTS

(2) HOW HAS THE CLIMATE ACTION PLAN PLAYED A PART IN YOUR CITY'S CONTRIBUTION TO THE MALAYSIA'S NDC?

NDC Malaysia intends to reduce its greenhouse gas (GHG) emissions **intensity of GDP by 45% by 2030 relative to the emissions intensity of GDP in 2005.** Among the **roles of CAP are**

1) All pilot cities able to formulate ambitious **mitigation target of 45% reduction or more** in emission intensity by 2030 using 2010 as base year;

2) **Outline 35 - 43 planned action and roadmaps** with details of implementers and partners are identified in the report to facilitate progress monitoring; and

3) Incorporate many of **existing national policies e.g. bio fuel policy, renewable energy and sustainable forestry** and follow up goal of **pursuing green growth for sustainability and resilience** under the Eleventh Malaysia Plan (2016-2020) policy.

RESULTS

(3) HOW WILL THE CAP DEVELOPMENT HELP MEET THE GCOM COMMITMENTS?

CAP development helps GCOM Commitment by

1. Ensure City Climate Action Plans (CAP) provide a ***scientific ground in policy making S2A*** especially in achieving mitigation target & adaptation goal and is prepared according to the ***Global Covenant of Mayors Common Reporting Framework (GCoM CRF)***.

2. ***All Malaysian pilot cities' CAPs planned actions addressed climate change by reducing greenhouse gas (GHGs) emissions, adapting to the impacts of climate change***, and delivering wider social, environmental, and economic benefits.

3. ***Provide opportunities for Local authorities received technical support i.e. step-by-step training and knowledge sharing on how to develop each essential component of a CAP,*** namely baseline GHG emissions inventory, target setting, CRVA, monitoring/verification, and climate finance options/implementation.

OUR CHALLENGES *(UTM)*

1 DATA AVAILABILITY

- **Lack of local data** and most data is aggregated.
- Difficult for modelling

2 INSTITUTIONAL CAPACITY

- The **understanding of climate change is relatively new** to Malaysian. Not all local government has the specialized department for climate change.

3 KNOWLEDGE AND MOTIVATION BARRIER

- In general public still **lack of knowledge and awareness** towards the issues of climate change

4 COVID-19 PANDEMIC

- **COVID-19 Pandemic affect local authorities / government to give prriority to CAP work** as focus is given to curbing pandemnic probelm

5 SHORT TERM OUTLOOK

- Difficult to **convince the climate emergency** for long term scenario 2050

LESSON LEARNED *(UTM)*

1

IMPORTANCE OF DATA AND INVENTORY

Set up data base management system on GHG emission and Climate vulnerability data

2

CAPACITY BUILDING

Capacity building on **climate change for local authorities officers / CWG.**

It should cover inventory data collection, monitoring and modelling

3

AWARENESS CAMPAIGN

Climate change Awareness to general public / school and how to develop low carbon society

4

CLIMATE FINANCE

Importance of **collaborating with Central government, technical agencies (SEDA)** on how to secure funding for low carbon projects.

5

CITY TO CITY COLLABORATION

Opportunities or partner cities to collaborate in near future

Challenges & Lesson Learned

Hanah Paik

OUR CHALLENGES *(CDP)*

1

LOCAL AUTHORITIES‘ INTERNAL CAPACITY

Lack of dedicated human resources acts as a barrier to the internal shift needed towards institutionalising climate action.

2

DATA & MONITORING

Data is the fundamental basis for climate action and tracking progress; it‘s availability and the ability for local officials to collect it continues to be a challenge.

LESSON LEARNED *(CDP)*

1

ON-THE-GROUND ASSISTANCE IS NECESSARY

While it was possible to support some aspects of work remotely, in-person assistance was needed to secure commitment and maintain momentum.

2

COMBINING FORCES STRENGTHENS THE PROCESS

Local climate action is enhanced by leveraging knowledge/experience from a range of local, national and international stakeholders

Terima Kasih谢谢 धन्यवाद

Thank you for your attention!