

PARIS AGREEMENT COMMITMENT

GHG emissions intensity per GDP **35%** by 2030¹ relative to the 2005 level

¹ A further 10% is conditional upon receipt of climate finance and technology transfer from developed countries.

TOP 3 SOURCES OF CO₂ EMISSIONS IN MALAYSIA

CO₂ emissions accounted for a total of **263,577 Gg CO₂-eq.**

1 Emissions from electricity production was the highest contributor at **39%** **103,047 Gg CO₂**

2 Emissions from transportation at **21%** **55,188 Gg CO₂**

3 Emissions from manufacturing industries and construction was the third largest contributor at **9%** **23,856 Gg CO₂**

Source: Malaysia's Third Biennial Update Report to the UNFCCC on 31 Dec 2020

STAGE 3

Transportation of finished products

Utilising **environmental-friendly mode of transportation** or fuel to transport finished products to reduce CO₂ emissions. The **use of biodiesel** generates significant **greenhouse gas savings** and **contributes to better air quality.**

Malaysia's **National Biofuel Policy 2006** centers around 5-strategic thrusts which covers, amongst others, **biofuel for transportation** and **biofuel for industry.**

Implementation of mandate to roll out **B20 - biofuel** with a **20% CPO** component for the transport sector:

Labuan & Langkawi implemented since **JANUARY 2020**

Sarawak implemented since **SEPTEMBER 2020**

Peninsular Malaysia initially to commence in **DECEMBER 2021**

Sabah initially to commence in **JUNE 2021**

**delayed to a date to be announced later (due to MCO)*

HOW HAVE OTHERS DONE IT?

McDonald's Malaysia

Recycled **cooking oil** from its restaurants into **biodiesel** used by McDonald's delivery trucks to transport raw materials from warehouses to the central kitchens.

WHAT YOU CAN DO?

Use **biofuel** for logistics and other more environmental-friendly options such as **electric-vehicle fleet.**

DO YOU KNOW?

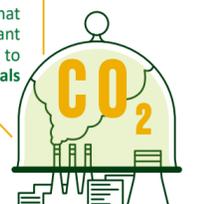
CARBON CAPTURE AND STORAGE (CCS)

Is the process of **capturing and storing CO₂** before it is released into the atmosphere.

Is able to **capture high amounts of CO₂** released by burning fossil fuels in electricity generation and industrial processes.

Is one of the critical technologies required to achieve **net-zero emissions** and the climate goals outlined in the Paris Agreement.

The **United Nations Intergovernmental Panel on Climate Change** and the **International Energy Agency** agree that **CCS** is one of the most important low-carbon technologies required to achieve **societal climate change goals** at the lowest cost.



HOW TO REDUCE YOUR SUPPLY CHAIN'S CARBON FOOTPRINT?

IMPLEMENT 3-STAGE SUSTAINABLE SUPPLY CHAIN PROCESS

STAGE 1



Sourcing from parties who comply with **recognised environmental-compliant and social-compliant standards and guidelines** and the environmental and social laws of Malaysia such as the **Environmental Quality Act 1974** and the **Employment Act 1955.**

Sourcing of raw materials and resources

HOW HAVE OTHERS DONE IT?

McDonald's Malaysia

Uses only **palm-oil** which is certified by the **Roundtable of Sustainable Palm Oil (RSPO)** in accordance with a set of environmental and social criteria.

Nestlé Malaysia

Embarked on a "**Grown Respectfully**" campaign in **growing and sourcing of coffee beans** locally in the state of **Kedah** by **local farmers.** Improved Nestlé's sustainable coffee supply chain.

IKEA Malaysia

Uses only wood sourced in compliance with the **IWAY Forestry Standard** (bans wood from sources involved in forest-related conflicts or illegal harvests). Pledged that by 2020, **100% of wood used will be FSC (Forest Stewardship Council) certified** or from recycled sources.

STAGE 2

Production of finished products

Existing green-centric programmes which are relevant to manufacturing facilities are:

Net Energy Metering (NEM)

Using self-generated renewable energy with **excess energy** being exported to the grid. Recent NEM 3.0 offers 3 different programmes. NEM NOVA, which are open to commercial and industrial sectors, allows for a **virtual aggregation mechanism** to set off electricity bills of **3 designated premises** for the first **10 years** of their contracts with the distribution licensee.

Renewable Energy Certificates (REC)

Tradeable market based instrument made available by renewable energy generators for each **1MWh of renewable energy generation.** Manufacturers are able to purchase REC to **offset against brown energy usage.**

Energy-efficient measures

Utilising only **energy-efficient equipment** and installations and/or appointing **energy service contractors via energy-performance-contracts** to replace, retrofit and/or install energy-efficient machinery system and powering up only by using energy-efficient rated LED lighting and air conditioners.

3-R approach

Practising 3-R approach for any materials.

REDUCE



REUSE



RECYCLE



Participating in existing green-centric programmes by the Government

HOW HAVE OTHERS DONE IT?

Bosch

Commissioned the country's **largest rooftop solar photovoltaic system installation** under the NEM scheme at its manufacturing facility in **Penang.** The 3MWp system is able to generate **4,500MWh of energy** and reduce **3,000 tonnes of CO₂ emission** per year.

WHAT YOU CAN DO?

Leverage on existing green-centric programmes to help reduce carbon footprints as well as electricity costs. Such efforts will also promote and further enhance the companies' green-centric policy.

HOW CAN THE GOVERNMENT WORK TOGETHER WITH THE PRIVATE SECTORS VIDE PPP?

HOW IT IS DONE?

Areas owned and managed by local authorities, state or federal governments (i.e. pillars of flyovers, bridges, divider walls and open spaces without greeneries) which are **prone to vandalism** and are **targets of graffiti** can be put up for 'adoption'. Private sector can 'adopt' these spaces to put up 'green walls' which act as a carbon sink.



Green Wall Initiative

Public sector to **work together** with the private sector to **establish more carbon sinks in urban areas** to **capture and store carbon** in a bid to achieve net zero emissions.

BENEFITS



Creation of new income stream for local authorities, state or federal governments and **reduction of carbon footprint** by private sectors.



Creation of new markets is possible with **tradeable market instruments** like the RECs.

WHERE HAVE THIS BEEN DONE?

Mexico's 'new green lung' aimed to

- Producing enough O₂ for more than **25,000 citizens**
- Filtering more than **27,000 tonnes** of harmful gases
- Capturing more than **5,000 kg** of suspended powders
- Processing more than **10,000 kg** of heavy metals per year



'Green-walls' in Mexico

Mexico City's green-wall project 'Via Verde' comprises of **60,000 m² of vertical gardens** installed on more than **1000 pillars** of a motorway funded by the private sector.

Source: <https://www.scmp.com/yp/discover/lifestyle/features/article/3060669/how-vertical-gardens-and-green-cities-are-making>

AUTHORS



Caera Lee Huan Yin
Senior Associate, Zaid Ibrahim & Co.
(a member of ZICO Law)
caera.lee@zicolaw.com
t. +603 2087 9986



Cheang Chee Kong
Senior Associate, Zaid Ibrahim & Co.
(a member of ZICO Law)
chee.kong.cheang@zicolaw.com
t. +603 2087 9959