Better Alignment Towards Net Zero

12th Malaysia Plan Midterm Review Kick-off Seminar 6 December 2022



Strategic context: Malaysia is at a cross-road

- Economy: Climate and ESG are now central to businesses in the production of goods and services. EU is mandating compliance within Global Value supply chain.
- People and Jobs: Stiff competition, enabled by enhanced focus in policy and implementation from regional players in Thailand, Indonesia, Vietnam.
 Opportunities for creating quality jobs in the sustainability sectors.
- Environment: Increasing intensity of disasters that are impacting local economies. Preparedness and risk reduction strategies can help mitigate damages and losses. Greater focus for ecosystem sustainability including biodiversity and forests.



Malaysia is particularly vulnerable to flooding with the frequency & extremity of floods increasing in recent decades & projected to increase with continued global warming



\$700M loss plus reconstruction costs



Affected 1M people



Palm oil & rubber production (primary economic drivers) dropped by 30%



2014 floods in the East Coast



\$1.46B losses, 0.4% of Malaysia's GDP



400k people displaced



RM 1.6B damage to public assets & infrastructure

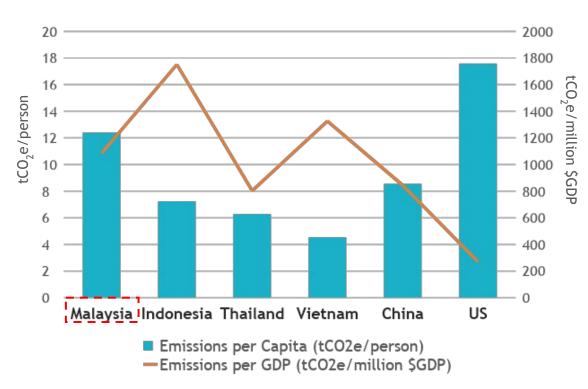


RM 1B damage to living quarters



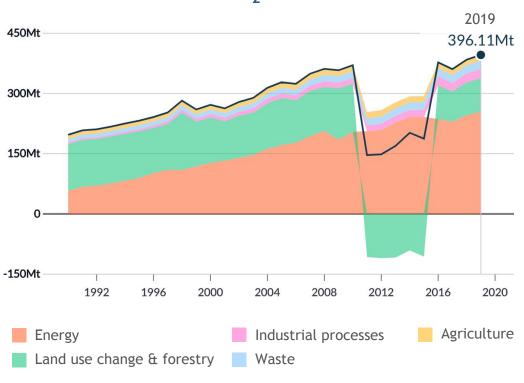
Malaysia per capita GHG Emissions intensity has potential to be reduced

GHG emission intensity 2019



 Higher GHG emission intensity (per Capita) compared to other Southeast Asian countries

GHG emissions by sector (MtCO,e)



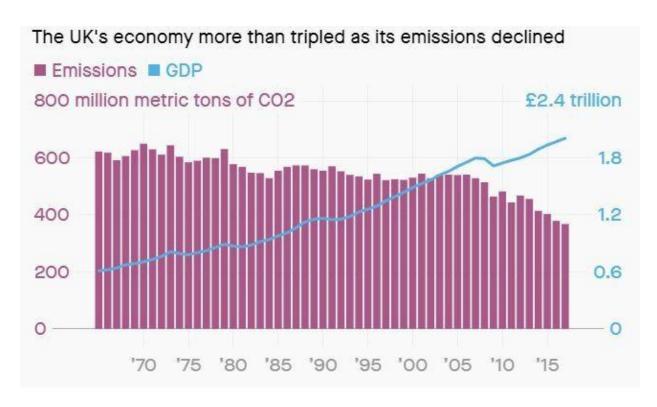
 GHG growth was led by the energy sector, followed by land use change & forestry sector

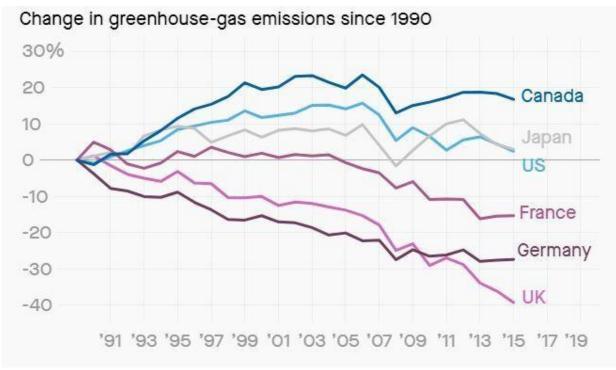
Source: Climate Watch



Growth can be Sustainable

UK's economy grew more than 3x since 1965, while emissions has fallen

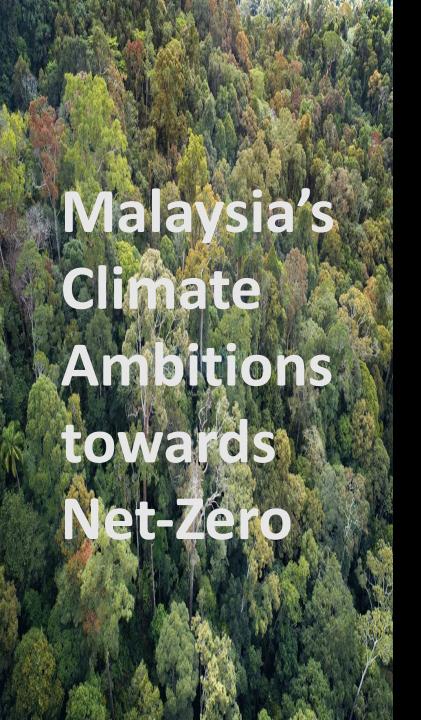




Source: UK Dept for Business, Energy and Industrial Strategy (BEIS), WRI

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1. Implementing low-carbon, clean, and resilient development.

2. Low-carbon energy through renewable energy and energy efficiency.

3. Green mobility through low-carbon public transport and usage of green vehicles

4. Promoting the protection and restoration of forestry to support carbon sequestration.

5. Enabling instruments for climate action, including a feasibility study on carbon pricing and an emissions trading scheme.



What does it take?

- Strategic and Integrated Policy Making on New Economic Drivers
- Better engagement, communication and capacity building
- Better alignment of policies, incentives and fiscal relations





What does it take: Strategic and Integrated Policy Making on New Economic Drivers

- Prioritize and Boost Sustainable businesses with high ESG
 - Public transport development, E-mobility and last mile connectivity
 - Retrofitting buildings with a focus on demand-side energy efficiency
 - Renewable energy development and other sources like used cooking oil
 - Sustainable agro-industry and modernization of commodity value chain
- De-emphasize industries with high carbon footprint: cement, steel, industrial production and fossil fuel
- Reduce or stop environmental damage: Loss of urban green spaces which acts natural buffers and carbon sponge, deforestation due to agriculture and encourage nature-based solutions.



Mitigation: Towards Sustainable Energy

INCREASE SUPPLY of RENEWABLE ENERGY

Solar on rooftops: cities, buildings

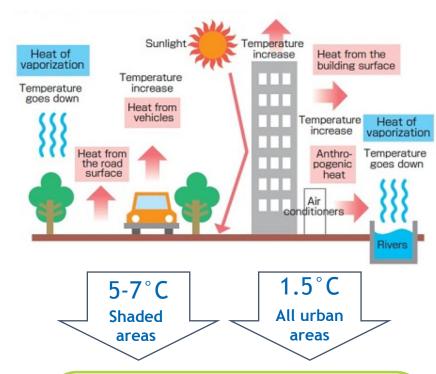
REDUCE ENERGY and URBAN HEAT ISLAND

- Use 'carrots': incentives, recognition and reward for % reduction
- Example: 5% energy reduction target in Government buildings
- Preserve green spaces to reduce Urban Heat Island (UHI) effect

INCREASE ENERGY EFFICIENCY

- National EE and Conservation Act
- Shift the narrative from 'reporting, auditing and increased costs', to 'benefits and costs savings'
- Use 'carrots and stick': recognition and reward for 5 stars, % reduction and improvers, and penalties for non-compliance
- Extend 5-star rating and rebate scheme to industrial machinery and products, not just consumers appliances

How the Heat Island Phenomenon occurs



Reduce temperatures and Urban Heat Island (UHI) effect by planting of trees and introduction of green spaces

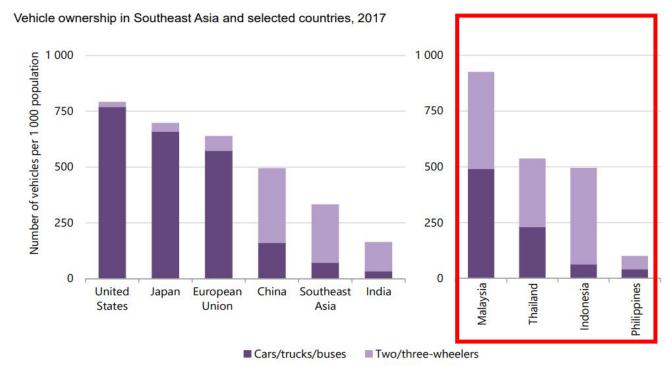


Mitigation: Towards Sustainable Transport

Make Public Transport more accessible, reliable with shorter commute

- Improve last mile connectivity: frequency and reliability of bus service, pedestrianization and cycling
- Significantly reduce cost trade-offs between car ownership and public commute
- Use price signals for behavioral change
- Increase Footfall: Improve Walkability and Tree-lined Pavements







Sources: South-East Asia Energy The ASEAN Secretariat (2018); IEA analysis

Mitigation and Adaptation: Towards Sustainable and Resilient Cities



PLANNING

Spatial planning, land-use management & land admin systems
Infrastructure & capital investment planning



FINANCE

Access to green finance; Municipal creditworthiness

Reliable inter-governmental fiscal transfers & local revenues



INSTITUTIONS & CAPACITIES

Building Regulations & Standards; Technical skills & digital technologies

Empowered local institutions



MITIGATION

Compact, urban growth planning Energy efficient & green buildings

Solid waste management & circular economy

Public transit & non-motorized transport

Electric vehicles, Rooftop Solar

Lifestyle and behavior changes



ADAPTATION

Risk-sensitive land use planning & building regulations

Protective infrastructure, Nature-based Solutions, urban and regional ecosystem/landscape regeneration

Adapting the built environment to heat (vegetation, reflective materials, shade, ventilation corridors) & urban flooding (permeable surfaces)

Early warning & emergency response

Reduced global warming

Reduced loss of life, property, economic activity

Benefits

Local Co-benefits: Improved air quality, reduced costs for municipal service delivery, household transport & energy, reduced traffic, reduced waste, preservation of agricultural land & natural habitats, health benefits & reduced dependency on fossil fuels.

Actions

Enabling

Systems

Adaptation: Urgency for a National Adaptation Plan

- Total public climate expenditure accounts for 0.2% of Malaysia's GDP and is comparable to other countries in the region.
- Adaptation expenditure has remained virtually unchanged in real terms, while mitigation expenditures more than doubled in real terms between RMK10 and RMK11.
- In the context of the increasing costs of climate events, the government may consider rebalancing climate expenditure toward adaptation.



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What does it take:

Better engagement, communication and capacity building

- For policy making: Leverage and enhance existing platforms and institutional structures: Government, regulators with private sector and NGOs
- For companies, especially SMEs who are part of value chain: to drive transition it is not just for compliance, it is for firm P&L/competitiveness
- For the people: mainstreaming and tell the stories better! Have short videos and communicate via all platforms especially social media



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What does it take:

Better alignment of policies, incentives and fiscal relations

- Policies: One policy for sustainability with a clear mandate for coordination across Ministries, Agencies and subnational Governments
 - Taking care of people: Incentives and enablers for companies to Transition
 - Better targeting Energy subsidies
 - Carbon pricing
- Incentives and fiscal relations
 - Increase the ambition of Ecological Fiscal Transfer for Biodiversity Conservation
 - Mobilising <u>Private Sector</u> Financing for Sustainability
 - Tax incentives for green technology adoption



TERIMA KASIH THANK YOU நன்றி 谢谢你



In Malaysia, climate change threatens to exacerbate poverty & inequality, with low-income earners economically dependent on activities where climatic conditions play a prominent role & typically living in more exposed areas

49th

most vulnerable country in terms of climate change impacts

29,800 sqm
where 5M people
reside, are
affected by
climate hazards

10th

country with the greatest number of landslides

>1/2

of the total disaster occurrence are **flooding**

\$1.8B

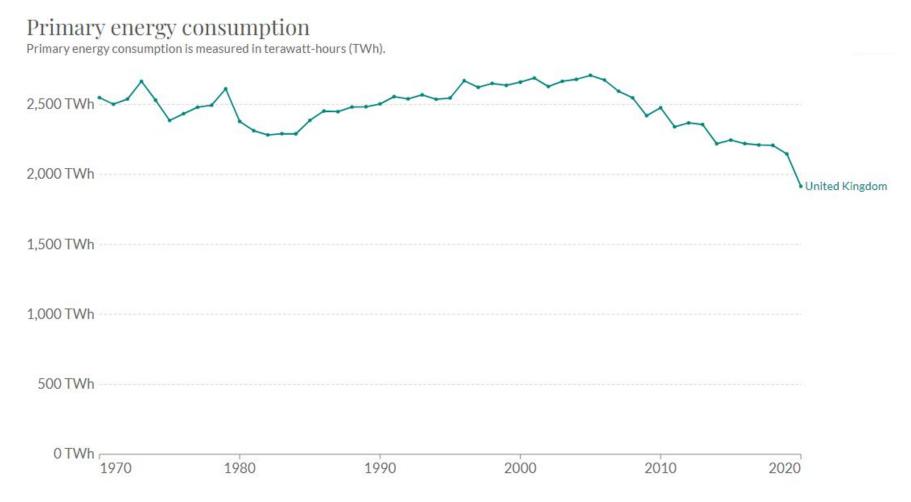
annual economic damage due to flooding

>130k

people affected annually by flooding



The UK now consumes less energy than back in 1970





Source: BP Statistical Review of World Energy; and EIA (https://www.weforum.org/agenda/2019/08/uk-energy-same-as-50-years-ago/