

UK PACT



Malaysia-UK PACT Stakeholder Workshop

14:30 (GMT+8)/ 07:30 (BST), 10 September 2020

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01

UK PACT: Introduction


UK PACT: Partnering for Accelerated Climate Transitions

UK PACT is a £60 million programme running between 2018 and 2022

Mission and vision

- Delivered by **BEIS, the UK's Department for Business, Energy and Industrial Strategy**, through the UK's International Climate Finance (ICF)
- Supporting **achievement of Nationally Determined Contributions (NDCs)** and the long-term goal of the 2015 Paris Agreement to **limit dangerous climate change**
- **Demand-driven**, adjusting key focus areas based on partner countries' needs and sectoral priorities

We will achieve this by:

- Working with partner countries to improve the capacity and capability of key institutions to reduce emissions and foster inclusive economic growth
 - Addressing barriers and constraints to clean growth
 - Pursuing opportunities for greater climate ambition
- 

UK PACT Programme Structure

A flexible, demand-driven delivery model to support transformational change

UK PACT is designed to be flexible and adaptive with three core components to its delivery model.



Department for
Business, Energy
& Industrial Strategy

Strategic Oversight

Country Programmes



Support in partner countries for **demand-driven projects providing capacity building** to accelerate low-carbon transitions

Green Recovery Challenge Fund



Support for **innovative capacity building** projects in a **wider range of ODA-eligible countries** to promote emissions reductions and low carbon solutions

Skill-Shares and Secondments

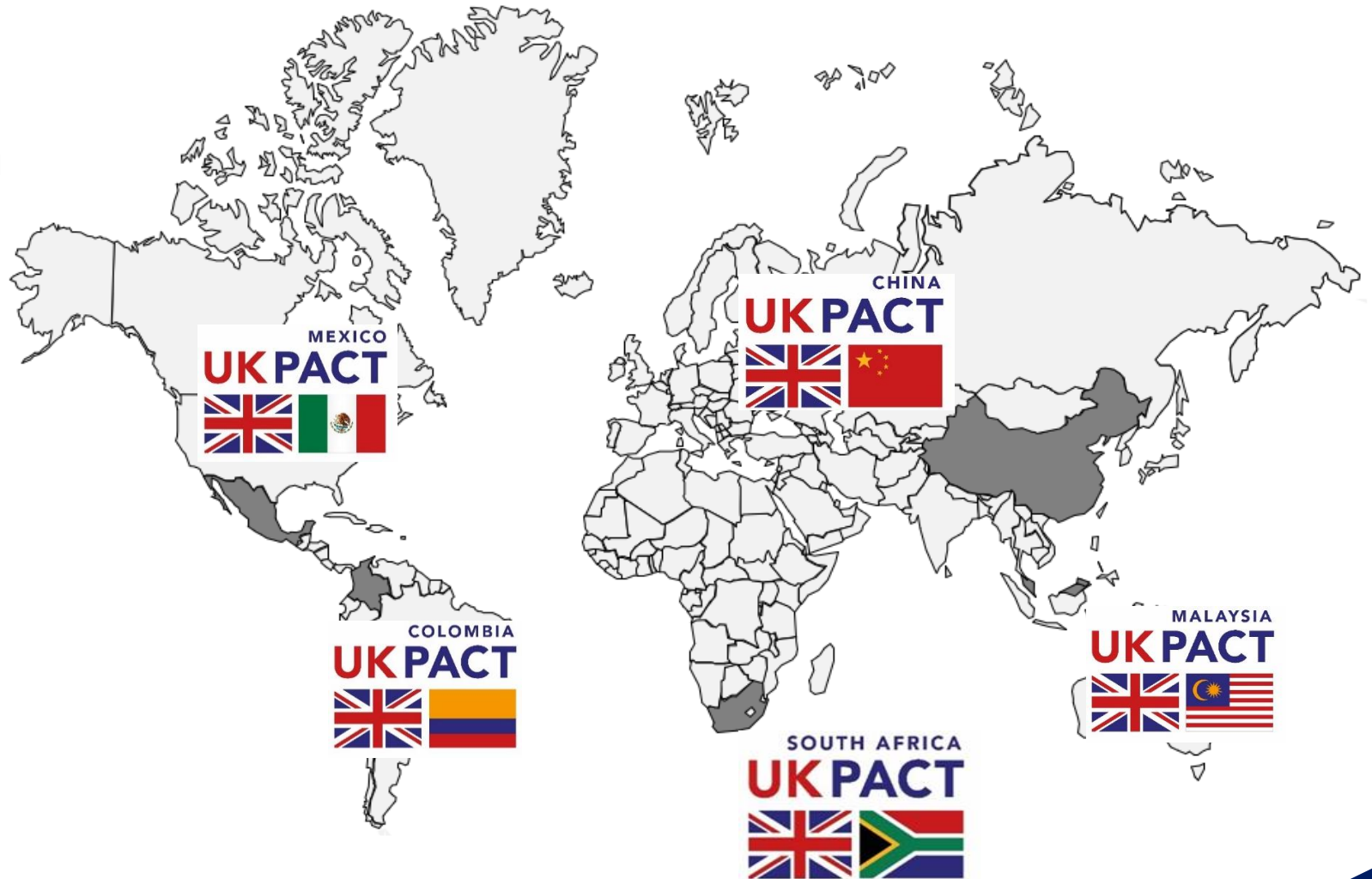


Short term **skill shares** between UK experts and their country counterparts, and long-term **secondments** into key institutions

UK PACT Country Programmes

Palladium International Ltd. will deliver the Country Programmes

- UK PACT Phase I launched in 2018 and has supported **34 projects across China, Colombia and Mexico.**
- UK PACT Phase II launches in 2020 with Country Programmes extended to **Malaysia and South Africa.**
- An **open, competitive grant facility** to support activities in priority sectors.



02

Malaysia-UK PACT Country Programme: Context

Key parameters for Malaysia-UK PACT

The 2020 call for proposals will allocate up to £2.25 million of funds through an open, competitive grant facility

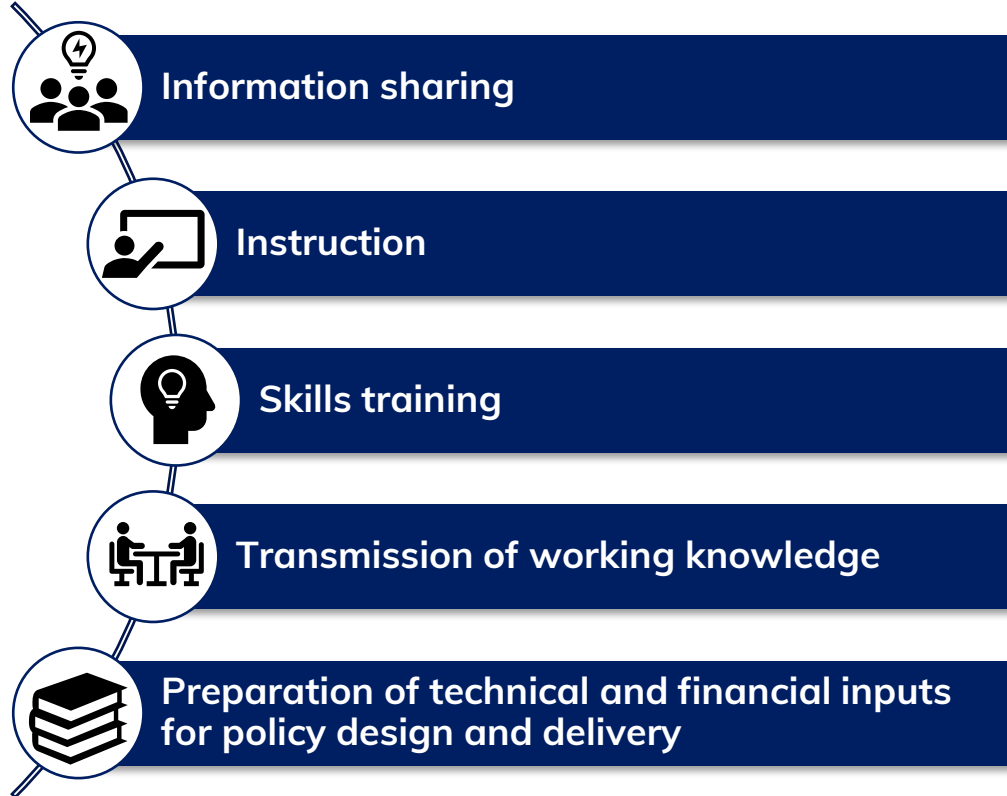
- **Budget Allocation (approximately):** ~£2.25 million available for funding in 2020 - 2021
- **Size of projects:** between £100,000 and £400,000
- **Timing of projects (approximately):** beginning March 2021
- Currently there is no indicative allocation of funding by sector.
- All projects must meet eligibility and quality threshold to be considered for funding.

Projects must deliver technical assistance and capacity building support.

Eligible activities – what is meant by technical assistance?

UK PACT projects must build capacity in key institutions to support low carbon transitions

Technical Assistance is defined as **non-financial support provided by external specialists** which can take the form of:



UK PACT activities may include:

- research and studies
- training
- advisory services
- convening and facilitation of dialogues and exchanges
- development and communication of models, tools and other resources
- provision of recommendations and review services

Who are the beneficiaries of technical assistance?

UK PACT projects must build capacity in key institutions to support low carbon transitions

Primary beneficiaries are likely to include:

National government departments

State government departments

Local government (city, district and local municipalities)

State-owned enterprises and other state-funded agencies, regulatory bodies and policy centres

Secondary beneficiaries (in partnership with primary beneficiaries) could also include:

NGOs

Industry associations

Private sector enterprises

Who provides technical assistance?

Types of organisations eligible for UK PACT grants (UK PACT Implementing Partners)

The following types of organisations are considered eligible for UK PACT Grant Funding:

- Academic institutions
- Consultancies and engineering firms (private sector firms)
- Industry or professional associations
- NGOs
- Think tanks

Any organisations with the knowledge, skills and experience to deliver Technical Assistance projects relating to one of the priority sectors

Two key application stages: Expression of Interest and Full Proposal

What are the main components at each stage?

1. Expression of Interest (EOI)

Capturing initial concepts and assessing eligibility

Includes:

- Eligibility
- Strategic fit
- Early planning
- High-level budget

2. Full Proposal

More detail provided on full project scope, activities, management, risk and reporting

Includes:

- Full project description
- Detailed project workplan
- Detailed budget
- Full risk analysis



Applicants successfully selected following Expression of Interest stage will be provided further guidance during the selection process

03

**Malaysia-UK PACT:
Market positioning
and sector priorities**

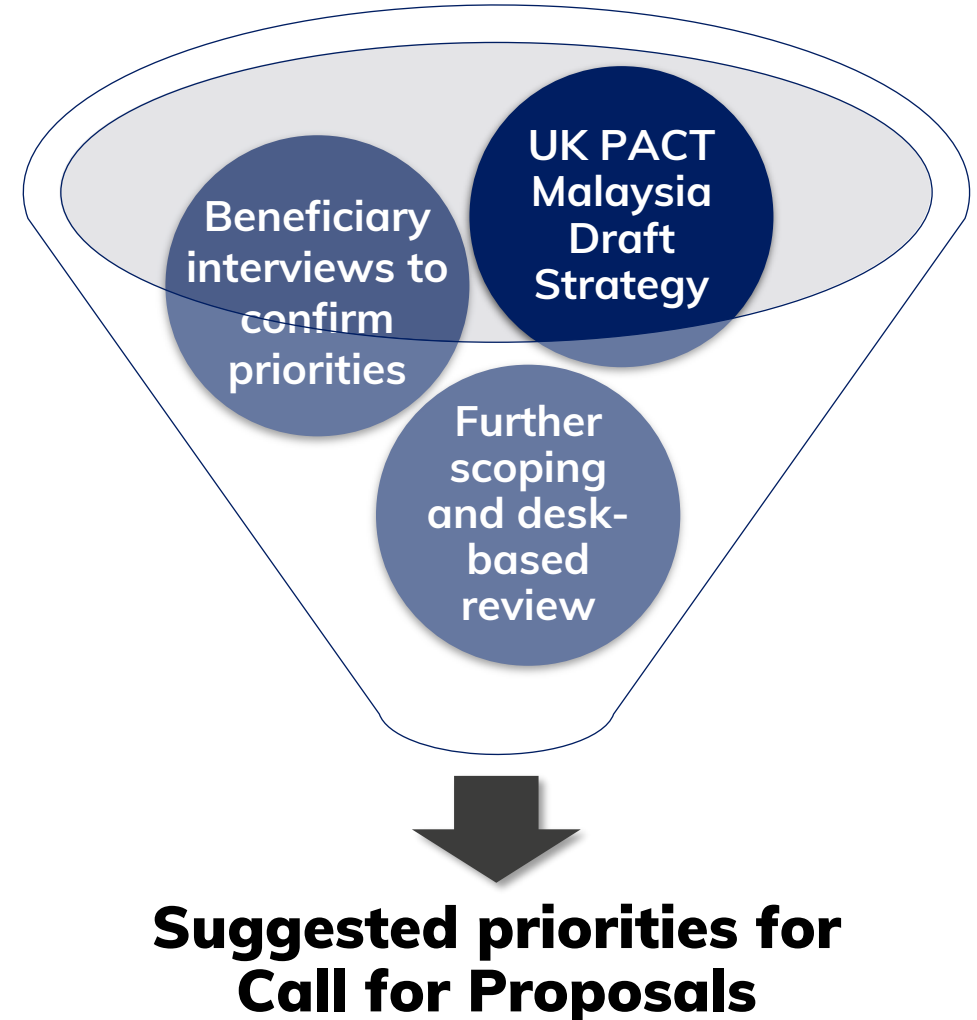
About the Market Positioning Review

Confirming and refining the scope of the Malaysia-UK PACT Country Strategy

- The Market Positioning Review exercise was undertaken to confirm and refine the priority areas and opportunities for UK PACT in Malaysia.

How?

- Desk-based research
 - Quantitative and qualitative analysis
 - Key interviews
 - Stakeholder mapping
-
- The findings inform focus intervention areas for a Call for Proposals (CfP) and other delivery mechanisms in Malaysia.



Principles for identifying key sectors for intervention

Assessing alignment of opportunities to UK PACT model by multiple criteria

Substantive Criteria	Country Demand	UK PACT Programming
<ul style="list-style-type: none">• Potential for low-carbon transitions• Potential for transformational change• Direct impact on multi-dimensional poverty alleviation	<ul style="list-style-type: none">• Sustainable upon exit• Country-led• Potential contribution to Green Recovery from COVID -19• Opportunities for knowledge-transfer and learning	<ul style="list-style-type: none">• Fit in coherent portfolio (to minimise outliers)• Adding value (least served by other donors)• Coherent to current Malaysia-UK PACT strategy• Feasible for delivery within the timeline & budget• Aligned with ICF programming in country

Note: Specific criteria for project selection will be provided in the call for proposals documentation.

Priority sectors for Malaysia-UK PACT Call for Expressions of Interests

1. Climate action enabling environment

Seeking proposals that support implementation efforts on:

- **Data development**
- **Data analytics**
- **Access and management of data**

On the national, sub-national and city-level.

2. Green Finance

Seeking proposals on:

Greening practices

- incorporating international best practices in financial standards
- encouraging deeper analyses of green investment opportunities

Greening investments

- incorporating green finance into economic recovery planning
- mainstreaming the use of nature-based solutions

3. Energy

Seeking proposals focussed on:

- **Renewable Energy**
- **Energy Efficiency**

Selection criteria to highlight capacity building and additionality of proposed studies or demonstration projects.

Potential sectors for next phases of Malaysia-UK PACT

Sustainable Transport & Mobility

- Strong potential for high-emission sector and city-level interventions.

Electrifying Urban Mobility is currently an opportunity open to the regional market through GRCF

Forestry

- Strong potential exists, **but** the long-term processes, and complex governance structures do not lend themselves to immediate UK PACT interventions at a sector level within the first funding envelope.

Forestry data initiatives can be considered as part of Climate Action Enabling Environment

Adapting to COVID-19 – Supporting a ‘green, clean & resilient recovery’

UK PACT aims to deliver sustainable change and support a green and inclusive economic recovery

- New policy, planning, investment and action must remain aligned with climate ambitions.
- We will be looking for evidence of how project proposals can contribute to **both emissions reductions and economic recovery** objectives including opportunities to align with the **New Green Deal** contemplated under Budget 2021.
- We will also be looking for **robust risk assessments and mitigation strategies**.



Theme 1

**Climate action
enabling
environment**

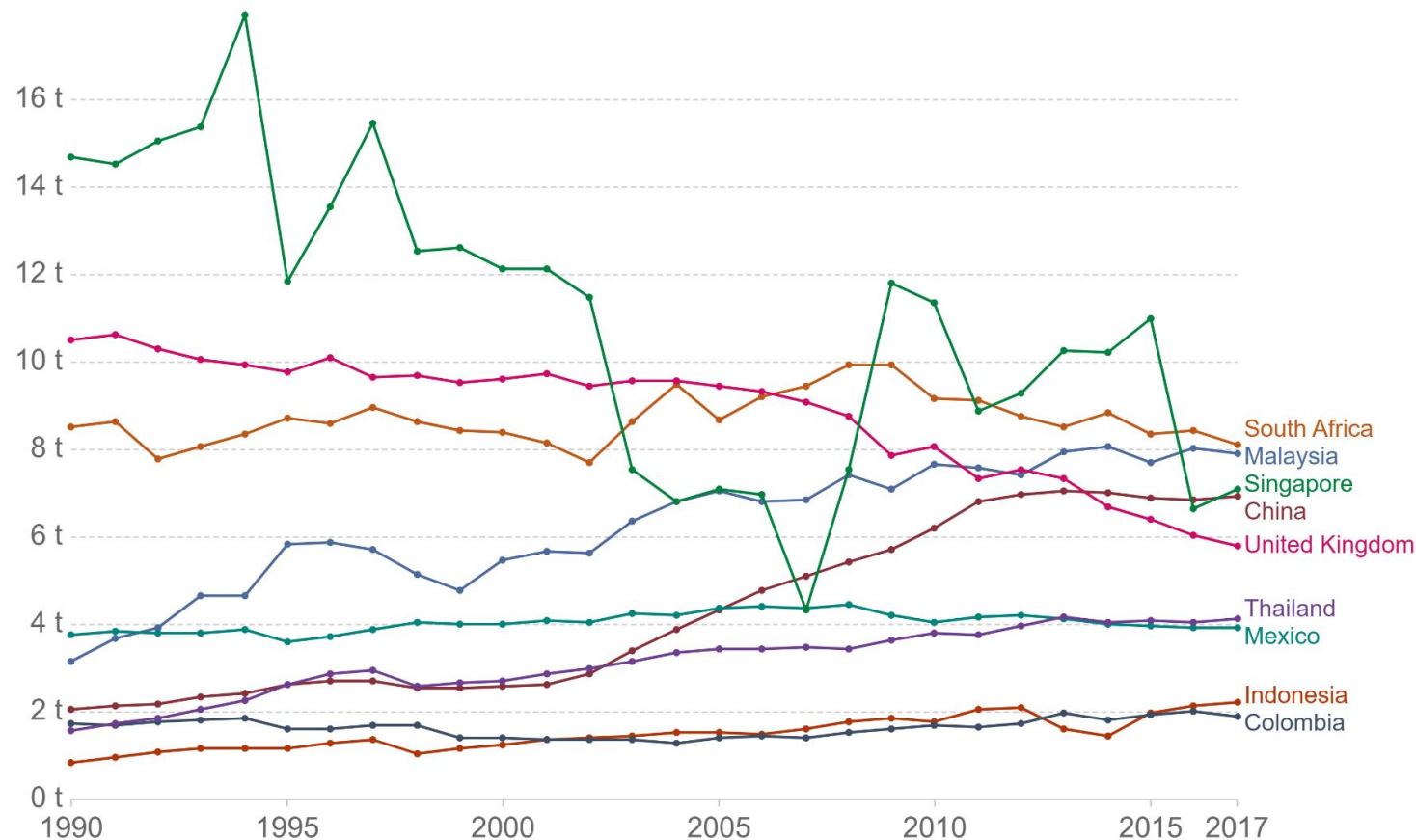
Malaysia Emission Profile

High per capita greenhouse gas emission

Per capita CO₂ emissions

Average carbon dioxide (CO₂) emissions per capita measured in tonnes per year.

Our World
in Data

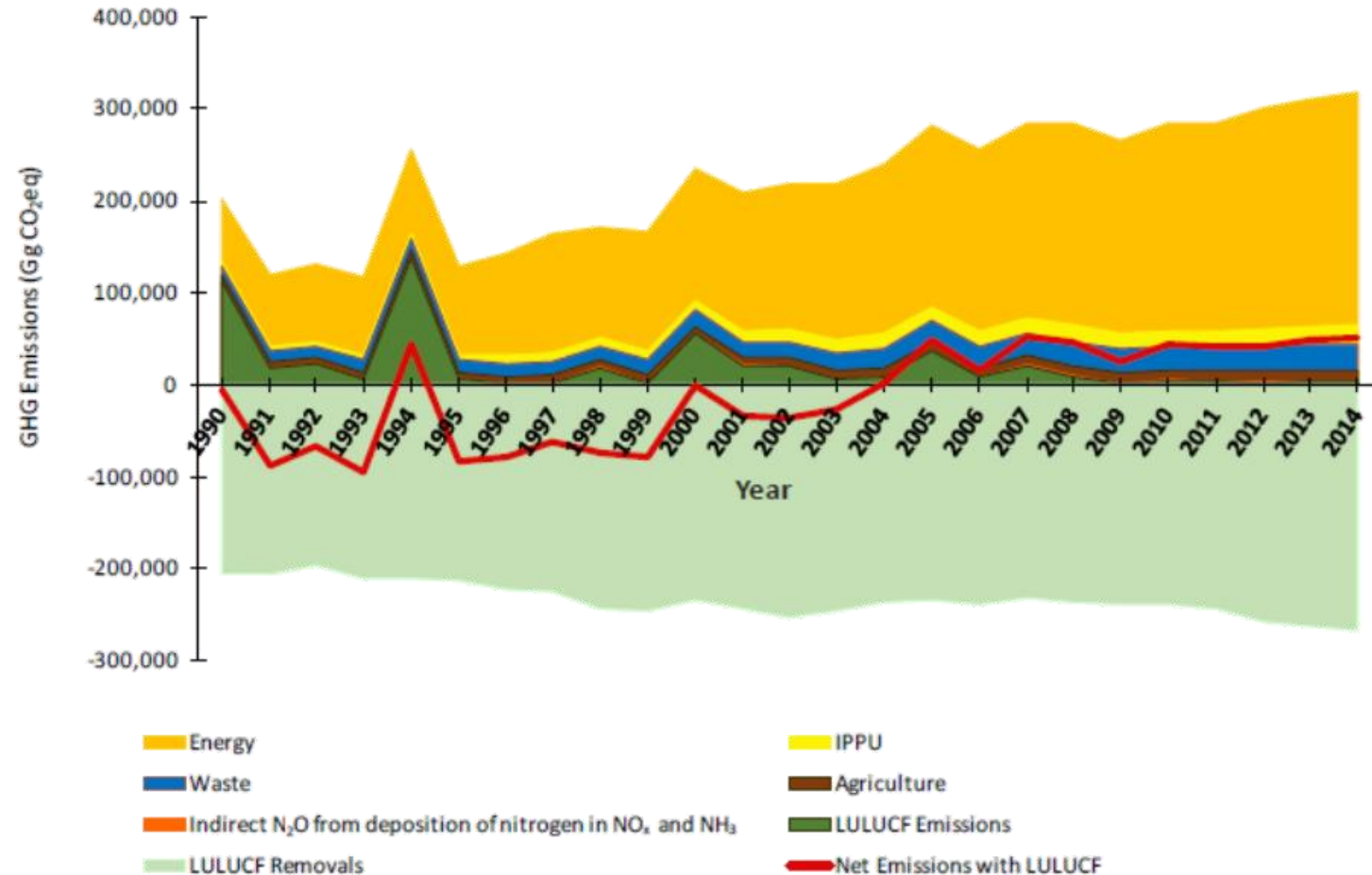


Source: OWID based on CDIAC; Global Carbon Project; Gapminder & UN
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

- In 2018 Malaysia was the **26th largest emitter globally**.
- CO₂ per capita has risen from 5 metric tonnes in 2000 to 8.05 metric tonnes in 2018.
- **Significantly higher than countries in the region** and all other UK PACT countries except South Africa.

Sectoral contributions to overall greenhouse gas emissions profile

Malaysia's emissions time series 1990 to 2014 - significance of energy & transport emissions



- Malaysian emissions have **doubled** since the 1990s.
- **Energy sector** has largest sectoral contribution (54% of total in 2014).
- Emissions from the **transport sector** account for a further 25% of emissions.
- Fossil fuels still make up **majority** share of Malaysia's energy mix and the uptake of renewables has been low (around 2%).

Intended Nationally Determined Contributions

Climate action enabling environment

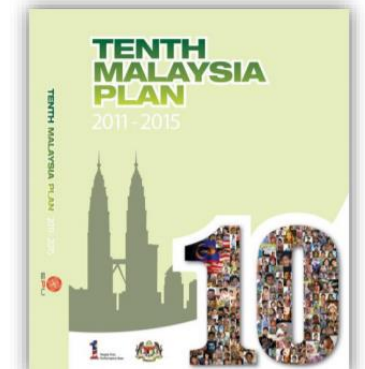
- Malaysia's Intended nationally determined contribution (I)NDC (2015) states the intent to reduce greenhouse gas emissions intensity of gross domestic product (GDP) by 45% by 2030 relative to 2005 levels.
- The (I)NDC indicates that **Malaysia has been proactive** with the introduction and further amendments to the green growth goal under the 11th Malaysia Plan (2016 – 2020)



“Pillar V, efforts to mitigate climate change will be intensified through reduction of greenhouse gas (GHG) emissions from the key GHG emitting sectors and increasing resilience of the nation against climate change impacts and natural disasters”



“Thrust 4, pursuing green growth for sustainability and resilience”



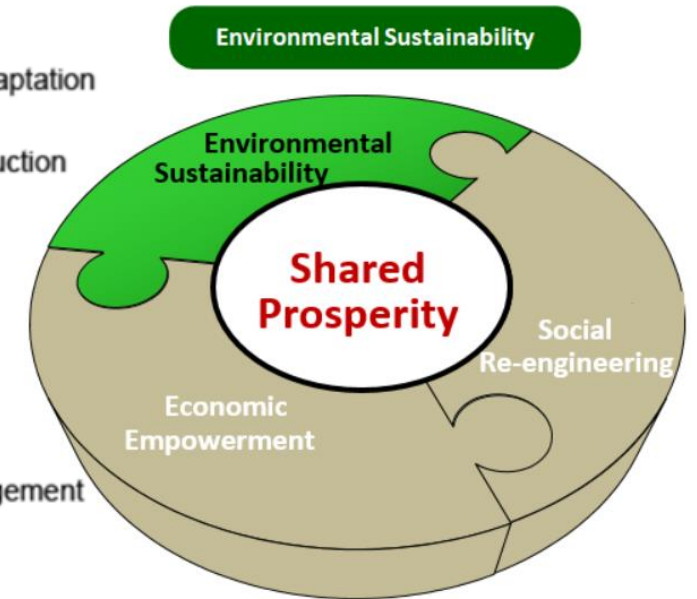
“Chapter 6, building an environment that enhances quality of life”

Raising ambition

Climate action enabling environment

- The 12th Malaysia Plan covers three development dimensions - economic empowerment, environmental sustainability and social re-engineering.
- With the concomitant need for economic stimulus and talk of a new Green Deal, there is currently an opportunity (and need) to advocate for low-carbon solutions.
- **Bottom-up engagement:** There are efforts to raise ambitions at city-level.

1. Climate change mitigation and adaptation
 2. Carbon Tax
 3. Sustainable Consumption & Production
 4. Disaster risk management
 5. Disaster risk insurance scheme
 6. Green technology
 7. Green economy indicators
 8. Biodiversity conservation
 9. Renewable energy
 10. Energy efficiency
 11. Integrated water resource management
 12. Marine litter
 13. Valuing ecosystem services
 14. Waste as commodity
- (list is not exhaustive)



Climate Governance – Trends

Climate action enabling environment

- In 2018, the formation of the Ministry of Environment, Science, Technology, Energy and Climate Change (MESTECC) positioned climate action as a priority.
- In 2020, institutional reconfiguration placed the climate portfolio under Ministry of Environment and Water (KASA), now responsible for UNFCCC reporting.
- The plan to enhance the scope of the former *Green Technology Corporation Malaysia* and transform it into a *Malaysia Green Tech and Climate Change Centre* (MGTCCC, or MGTC) is still underway. The MGTC is modelled on the UK example through BHC support since 2018.
- Climate action in cities is growing in importance. Supporting cities in their effort, through capacity-building, data generation and management (and in the mid-term through climate action planning similar to C40) would have potentially high transformational impact.
- There are also initiatives to involve Youth (e.g. UNICEF's *Youth Climate Change Initiative Survey*).

Data Generation, Analysis & Management – Trends

Promising initiatives exist in data collection, analysis and management

- There is a need to improve capacities, both at the national and subnational level, to collect, analyse and manage climate-related data.

Emphasis on three main aspects:

- improved data generation;
- improved capacities and tools to analyse data;
- improved management of data to enhance use and access.

Opportunities can focus on:

- developing the enabling environment to gather sufficient data
- competent analysis and latest modelling to support better policy making

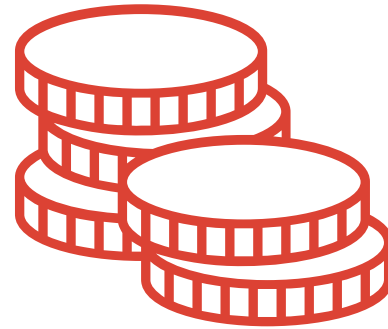
- There is also demand for data on climate impacts and risks from the economic sector, both businesses and banks, to enable an informed corporate response to climate.

Climate Policy – Constraints

Climate action enabling environment



Effective climate change governance is limited due to lack of strategic framework across all levels of government.



Local governments rely heavily on developmental charges for revenue, and State governments rely on land use, land use change and forestry (LULUCF).



Monitoring, reporting and verification (MRV) capacity varies across sectors, with greater uptake achieved by private sector initiatives.

Climate Governance – Constraints

Climate action enabling environment

- **Coordination and cooperation at state- and city-levels are also underpinned by economic reasons.**
If alternative revenue generation opportunities are not devised, underlying tensions are unlikely to be resolved, undermining climate action.
- **A need for more structural involvement of the private sector to respond to the demand for local and legitimate green finance and carbon offset schemes.**
Initiatives that focus on increasing capacities and knowledge of State actors (for instance on the mechanisms of sustainable voluntary carbon offset markets) are likely to positively enhance the enabling environment for climate change.
- Most of the stakeholders interviewed consider the **lack of centralised access to quality and up-to-date data** as a barrier to achieving climate objectives.

Theme 2

Energy

Energy sector overview

Context

- The global growth of clean energy technology adoption continues to outpace projections as the world looks to decarbonise.
- Rapid growth of renewables is a priority of the Government's Renewable Energy Transition Roadmap (RETR) 2035 (still under development).
- There has been some progress of energy efficiency schemes in Malaysia.
- Potential for reduction of use and reliance on fossil fuel powered energy and transition to a low carbon economy.

Barriers to energy sector opportunities:

- Resistance from embedded interests
- The perceived high cost of investment in green technology
- Prioritisation of energy affordability (supported by fossil fuel subsidies)
- Lack of continuous government energy policy and programmes

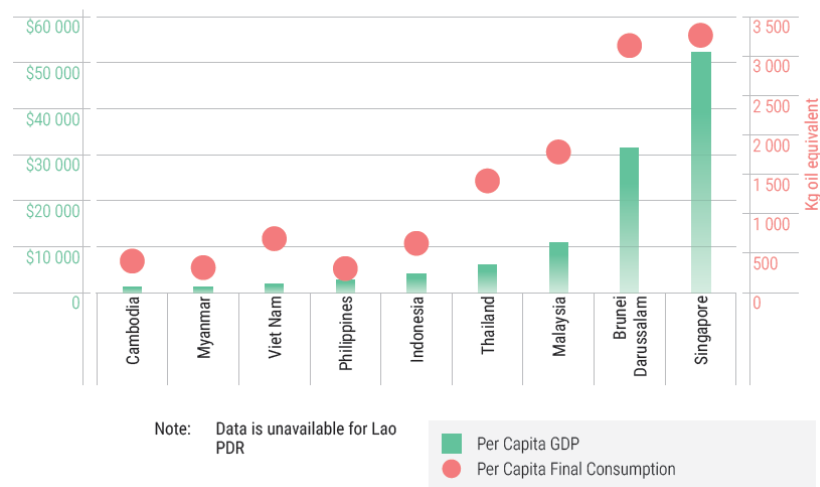
The context is conducive for working in Energy. There are good opportunities on energy efficiency and renewable energy, as well as potential innovations on Alternative Fuel Sources and Vectors.

Energy sector overview

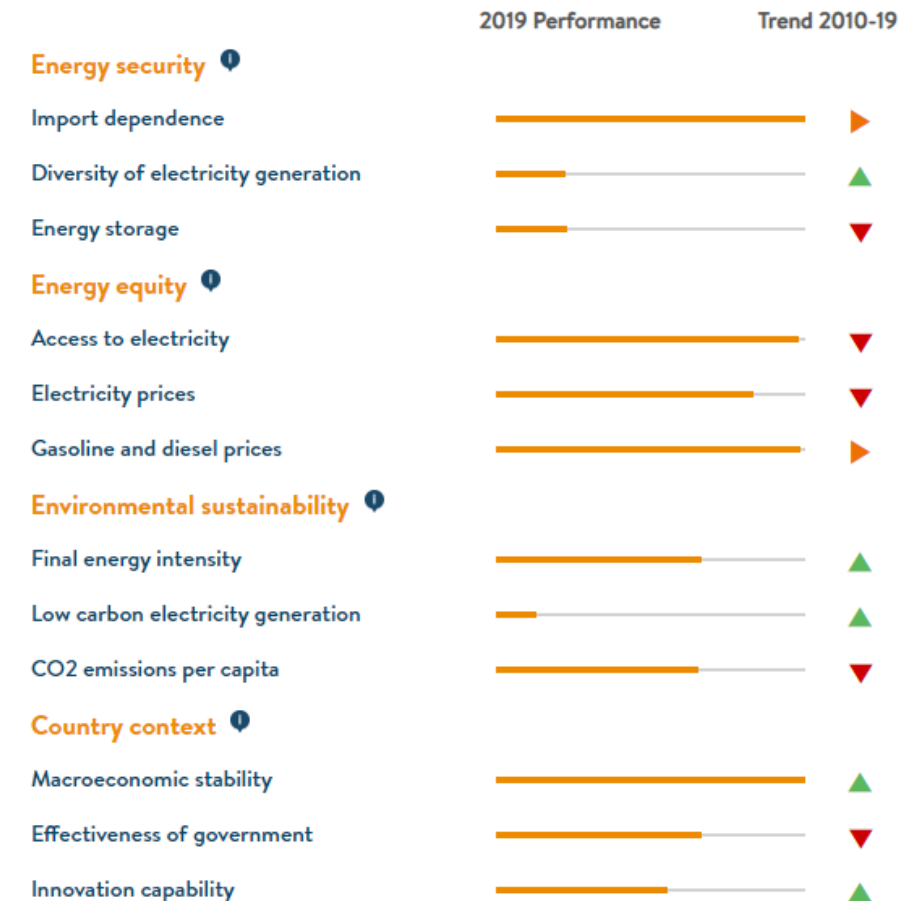
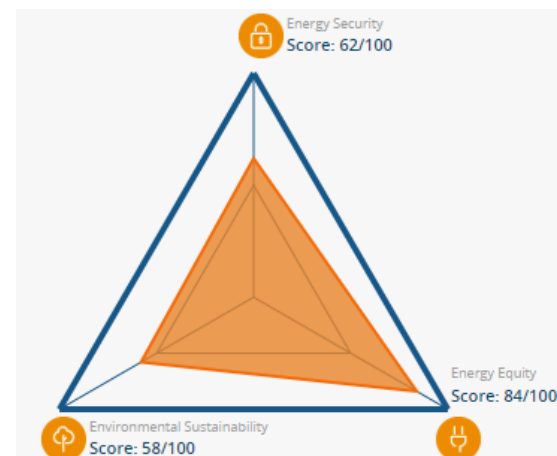
Context: Rating to peers

- According to the World Energy Council's Energy Trilemma Index, Malaysia ranks 51 in the world overall, with Singapore at 43 and Indonesia at 69.
- Malaysia ranks 88 globally for sustainability, which includes energy intensity, low carbon generation and emissions per capita.

Per Capita GDP and Per Capita Final Consumption, 2016



*Images from: UN ESCAP (2019), Energy and Development in the ASEAN Region



*Images from: World Energy Council

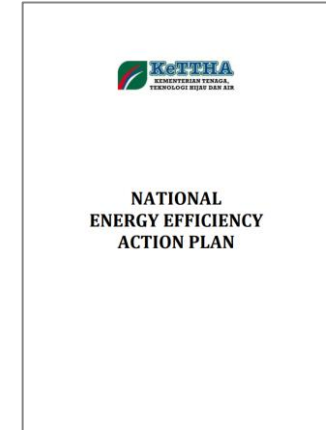
Energy efficiency



Trends

Energy Efficiency

- Globally a total of USD 240 billion was invested in energy efficiency across the buildings, transport, and industry sectors
- In Malaysia, over the past 10 years there have been a number of energy efficiency initiatives led by the Government and other development programs. Recent, key initiatives include:
 - The Green Technology Finance Scheme (GTFS) 2010
 - Energy Performance Contracting (EPC) 2013
 - Building Sector Energy Efficiency Project (BSEEP) 2010
 - Industrial Energy Efficiency for the Malaysian Manufacturing Sector (IEEMMS) 2012
- Energy Efficiency and Conservation Act (EECA), yet to be legislated.
- Release Green Technology Master Plan: 2017 – 2030
- The National Energy Efficiency Action Plan (NEEAP)



Challenges

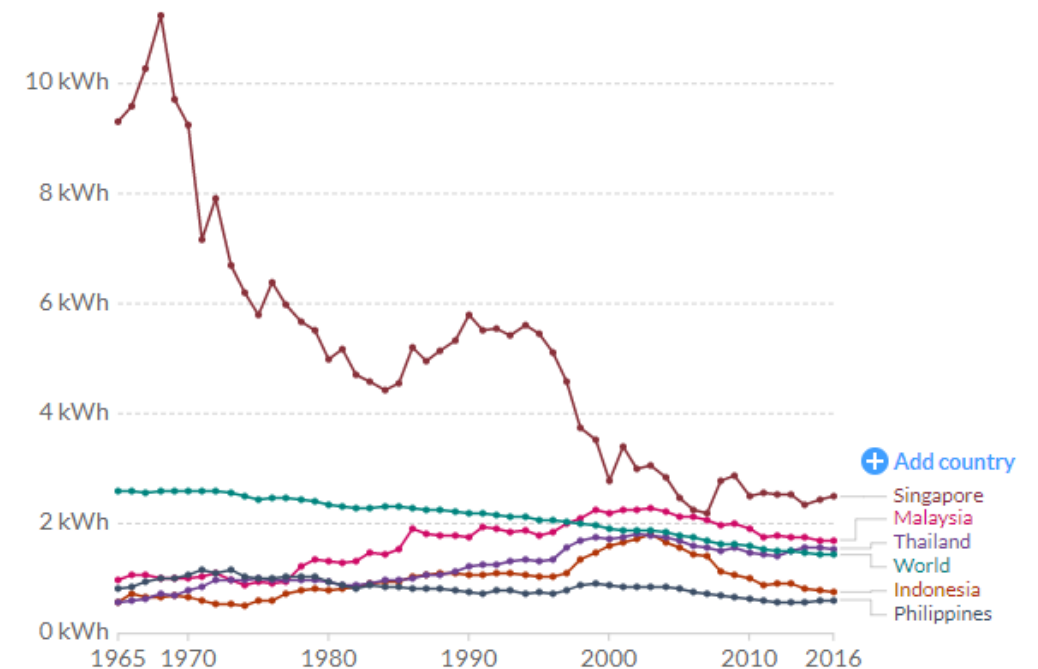
Energy Efficiency

- **COVID-19:** Investment in efficiency and end-use applications is set to fall by an estimated 10-15% globally.
- Malaysia has set a less ambitious target for energy efficiency than its ASEAN peers for electricity demand growth reduction of 8%.
- Both the Energy Efficiency and Conservation Act (EECA) and the National Energy Efficiency Action Plan (NEEAP) have faced challenges with implementation.
- The current electricity pricing mechanism and subsidies provide a disincentive for energy efficiency improvement.
- Small to medium-sized enterprises (SMEs) are frequently unable to access finance or technical capabilities for energy efficiency measures.
- Energy audit funds, governance and data management systems are lacking.

Energy intensity

Energy intensity is measured as primary energy consumption per unit of gross domestic product. This is measured in kilowatt-hours per 2011\$ (PPP).

Our World
in Data



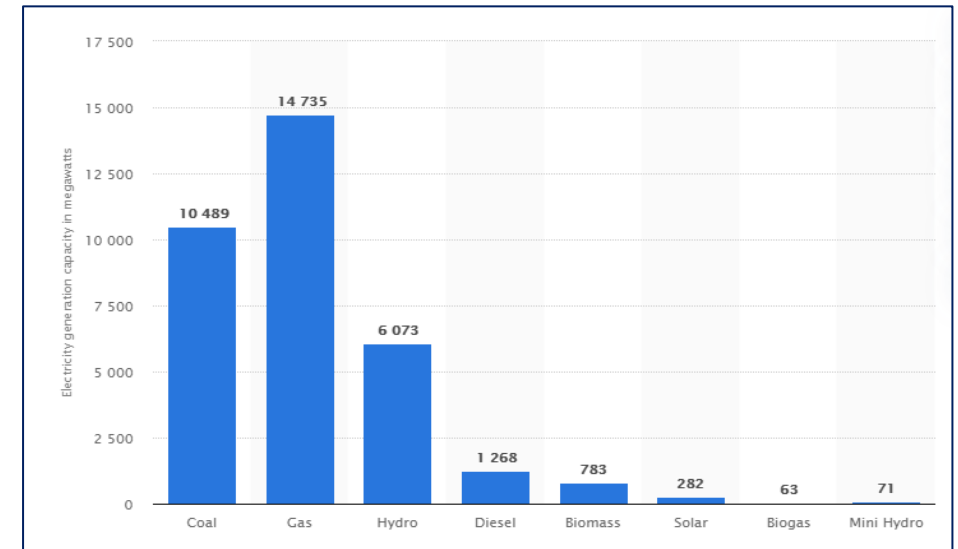
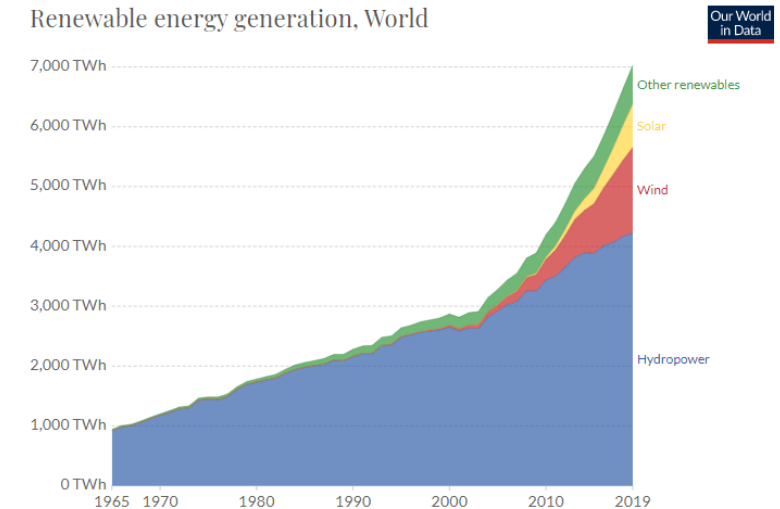
Renewable energy



Trends

Renewable Energy

- Global renewable energy generation capacity has increased to around one third of total installed electricity capacity.
- Asia accounted for 61% of total new renewable energy installations and grew installed renewables capacity by 11.4% in 2018.
- The previous Energy Ministry and Sustainable Energy Development Authority (SEDA) released a target to increase renewable energy to 20% by 2025 (excluding large hydro).
- Competitive large scale solar (LSS) tendering of 500 MW introduced in 2019 with four bids lodged of around 100 MW projects and fifth for a 90 MW facility.
- Net Energy Metering (NEM) 2.0 has seen rapidly increased uptake of rooftop solar from ~14 MW in 2018 to 108 MW in 2019.
- High renewable energy can be actively planned for through proper grid design, smart grids and various short and long-duration storage technologies.



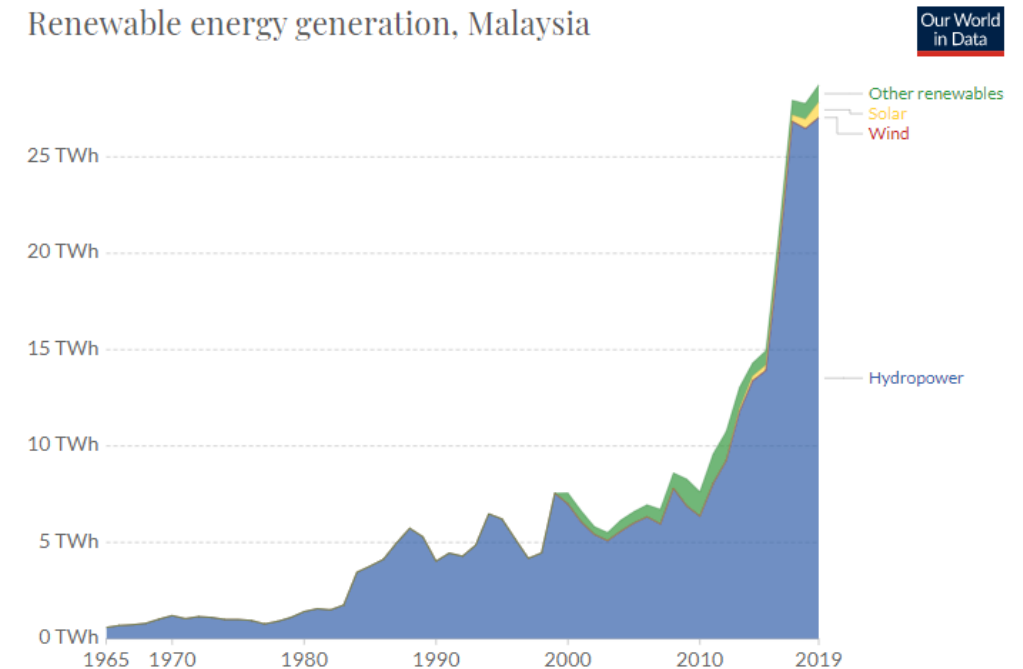
Electricity by fuel source in MY 2018 –
Source: Statista

Challenges

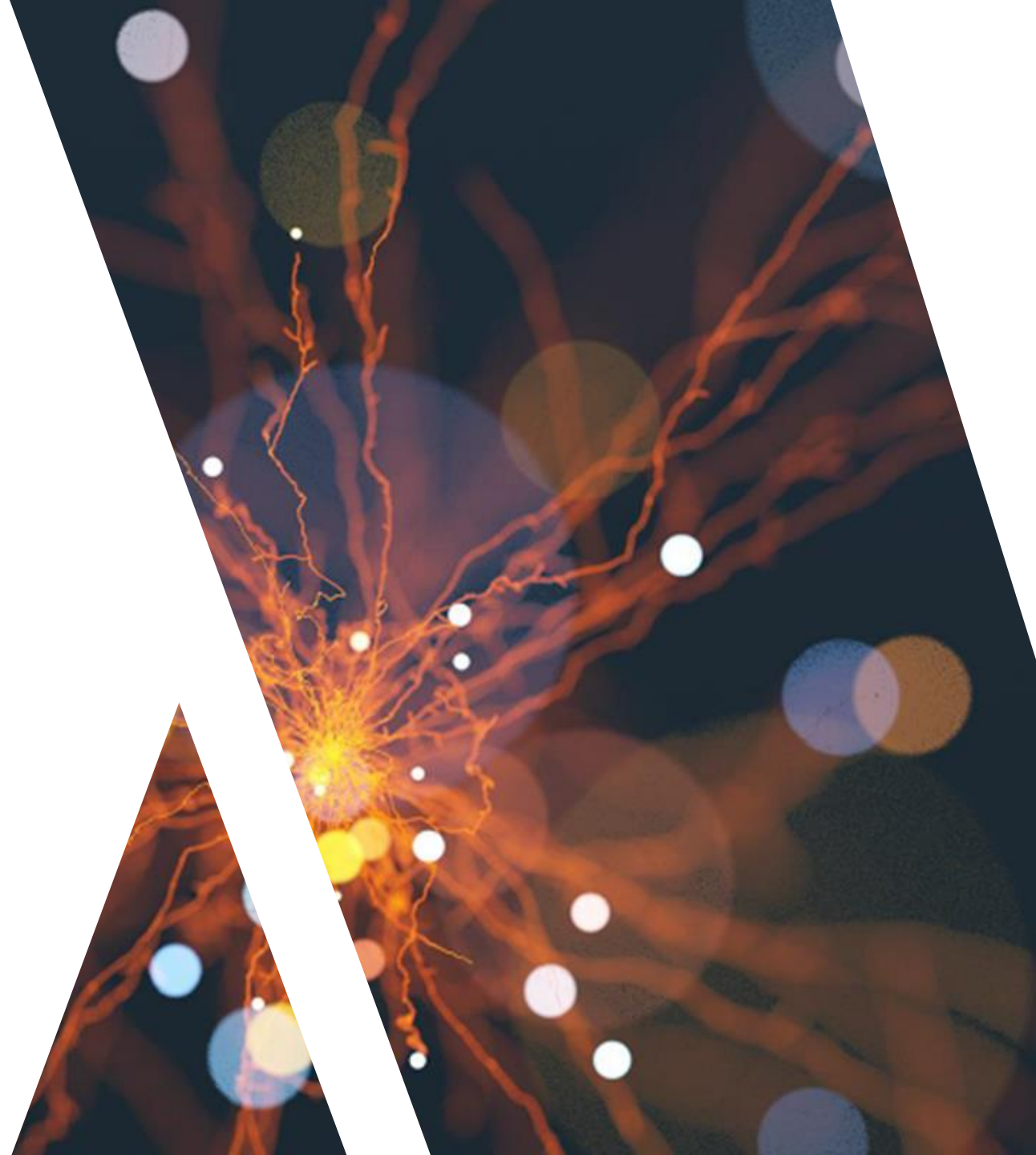
Renewable energy

- No clear guidance nor practical actions on how Renewable Energy Transition Roadmap will be achieved.
- Increasing renewable energy penetration may cause strain on grids if not planned for properly.
- There is a perceived lack of technical experience of grid operators in designing for and managing highly variable renewable energy generation systems.
- Feed-in-tariff (FiT) quota and allocation model is not transparent and inhibits the organic growth of renewable energy projects.
- Subsidised electricity prices means renewable energy is not competing on level playing field.
- Vested interest resistance from incumbent generators against renewable energy deployment.

Renewable energy generation, Malaysia



Alternative fuel sources and vectors



Trends

Alternative fuel sources and vectors

The transition to clean energy can be facilitated by implementing a range of complimentary technologies including batteries, hydrogen, bioenergy and zero emissions vehicles.

- **Global investments in battery energy storage systems (BESS) is leading to rapid cost and technology improvements.**
Grid-scale BESS are expected to increase from 1.2 GW in 2019 up to 180 GW by 2030 driven by cost reductions in Lithium-ion batteries.
- **Battery storage has started to enter the conversation in Malaysia to support distributed energy resources.**
BESS can enable the development and deployment of microgrids to complement PV technology and replace diesel generators.
- **Global interest in Hydrogen as a vector to store, transport and translate renewable energy generation is growing.**
Hydrogen is being explored in Malaysia with a pilot project being run by Sarawak Energy and the hydrogen economy being discussed by Malaysia Green Technology and Climate Change Centre (MGTC) at a national level.
- Biomass and energy from waste (EfW) technologies can also support to provide baseload / planned power generation to support grid stability.

Challenges

Alternative fuel sources and vectors

- **Lack of experience** developing and deploying residential and utility-scale battery energy storage (BESS) systems in Malaysia.
- **Limited understanding** of the hydrogen economy in public institutions and technical experience with hydrogen technology.
- Promoting a hydrogen economy that is clean and is leveraged off renewable energy is important for clean energy transition.
- The drive to Zero Emission Vehicles (ZEV) in the short term is not possible, due to fossil fuel reliance of power grid.
- **Introducing Government to new innovative technologies could distract** from implementing efficient, globally tested changes to policy or legislation to promote low carbon economies.
- Sustainability and continuity of feedstock for biomass and EfW technologies.



Theme 3

Green
finance

Green finance sector overview

Context



Leader

- Malaysia is a leader in ASEAN on green finance
- It has led the region in the application of existing instruments, such as Sukuk, for green purposes.
- Malaysia has demonstrated leadership through the creation of task forces and committees through national sponsors to institutionalise best practices in green finance.
- It has pioneered protocols that create an enabling environment for sustainable finance.



Mainstreaming

- Malaysia's financial ecosystem is uniquely poised to adopt and mainstream new practices around climate finance disclosure, transparency in reporting, and data-driven decision making around the impact of certain investments.

Summary Overview

UK PACT should engage in the green finance sector, starting with the Call for Proposals.

Context:

- Malaysia benefits from a genuine commitment to green finance from national leaders and policy-makers and key non-governmental organisations, as demonstrated through the creation of initiatives like the Joint Committee on Climate Change (JC3).
- Malaysia has been a leader in pioneering new instruments and mechanisms to inspire flows of funds for green finance, including the introduction of a public guarantee scheme to inspire banks to lend on green initiatives (2013) and the world's first green Islamic finance in the domestic capital markets (2017).
- There still are other financial innovations that have not yet been fully integrated into the Malaysian financial ecosystem (i.e., sovereign green bonds, certified climate bonds).

Key take-aways:

- The Malaysian financial ecosystem is poised to adopt and mainstream new practices around climate finance disclosure, transparency in reporting, and data-driven decision making around the impact of investments.
- There is high confidence on the potential & interest for Green Finance in Malaysia, and several opportunities in both greening practices & greening investments. UK PACT should engage in this space, initiating with the CfP.

Trends

Green Finance

- Malaysia is keen to maintain its place as a regional leader in green finance and recognises that it would benefit from external assistance in the delivery of some of these interventions.
- Stakeholders across the country – both in the public and private sector – are looking for new ways to measure climate impact using data and technology.
- An increasing number of sponsors are looking to finance projects from sources other than commercial banks, and the financial sector is exploring how best to facilitate the structuring of new mechanisms beyond public sector guarantees.

A position of leadership

Compared to its peers in ASEAN, **Malaysian financial institutions hold two of the top five spots** on the league table of underwriters of green bonds.

Top 5 underwriters of ASEAN green bonds

Rank	Underwriter	Country	Deals	Amount issued (USDm)
1	HSBC Holdings PLC	UK/HK	8	800
2	Malayan Banking Bhd	Malaysia	5	448
3	Dubai Islamic Bank PJSC	UAE	2	400
4	Citi	USA	5	393
5	CIMB Group Holdings Bhd	Malaysia	2	368

For more information on the state of green finance in ASEAN, please see https://www.climatebonds.net/files/reports/cbi_asean_sotm_2019_final.pdf



Commitments

Green Finance

Over the past year, there has been an acceleration in the shift towards sustainable finance.

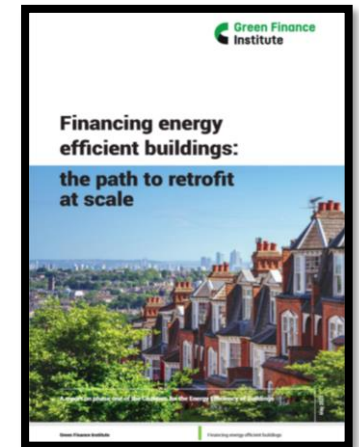
Why?

- a new government target on renewable energy
 - favorable renewable energy prices
 - a proactive central bank
 - a banking sector willing to innovate.
-
- The previous government's pledge to increase the renewable energy component in electricity generation to 20% by 2025 estimates that £6.4 billion will be required to meet this target.
 - To meet these financing goals, the Malaysian Green Financing Task Force was established to report on the status of green finance in Malaysia.

Green Finance Internationally

UK experimentation

- In October 2019, the London Stock Exchange launched two initiatives supporting sustainable finance on its markets. **The Green Economy Mark** recognises listed companies with 50% or more of revenues from environmental solutions, while the **Sustainable Bond Market (SBM)** incorporates new Sustainability, Social and Issuer-Level Segments. These initiatives are designed to support issuers implementing sustainable business models, and investors who are increasingly focusing on environmental products and services supporting the transition to a low carbon economy.
- Around the world, the built environment is responsible for almost 30% of total greenhouse gas emissions; proper mitigation and efficiency measures, energy can lead to savings that increase consumer spending power, healthier homes that reduce the burden on our health system, and the creation of new skilled jobs that can help stimulate economic recovery. **The UK's Green Finance Institute is leading the Coalition on Energy-Efficient Buildings to significantly increase the energy efficiency of commercial and residential buildings across the country.**



04

Next steps



CFP Schedule – Malaysia

Indicative timelines for open call funding process

Stage	Date
Market Engagement Event	September 2020
Call for Expressions of Interest launched	October 2020
Submission of Expression of Interest	November 2020
Shortlist selected	December 2020
Submission of Full Proposals	January 2021
Projects awarded	February 2021
Launch programmes	March 2021

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Thank you

Thank you