



Striking the Balance between Climate and Economic Development

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Economic Success but Long-term challenges as Malaysia aspires to become a High-income Economy

Growth Rate: Malaysia's growth rate is slower compared to other nations that recently achieved high-income status.

Employment and Inequality: The country has a lower share of high-skill employment and higher inequality levels than other middle-income countries that have transitioned to high-income status.

Taxation and Social Spending: Malaysia's tax collection and social protection spending are lower compared to OECD countries.

Environmental and Corruption Metrics: The country lags in global environmental management and governance metrics.

Policy and Institutional Reform: Existing policies and institutions that propelled Malaysia from low- to middle-income status may no longer suffice. The focus must shift towards knowledge-intensive and productivity-driven growth, aligning with technology and sustainability.

International and Technological Context: Unlike the Asian Tigers, Malaysia and other high-income aspirers face a complex global environment, including the pandemic, a global recession, potential debt crises, trade disputes, and disruptive technologies.

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Malaysia's Vision for the Future (1)

The Twelfth Malaysia Plan, 2021-2025 (Twelfth Plan) is anchored on three themes:










1. **Resetting the economy** focuses on restoring the growth momentum of key economic sectors, and propelling strategic and high impact industries as well as micro, small and medium enterprises.
2. **Strengthening security, wellbeing and inclusivity** by enhancing defense and security, while improving healthcare, providing affordable housing, promoting an active lifestyle and fostering unity.
3. **Advancing sustainability focuses on advancing green growth as well as enhancing energy sustainability and transforming the water sector.**

Four catalytic policy enablers support the achievement of these three themes:

1. **Developing future talent**
2. **Accelerating technology adoption and innovation**
3. **Enhancing connectivity and transport infrastructure** focuses on the **efficiency of transport and logistics infrastructure** and **sustainable services.**
4. **Strengthening the public service**

Malaysia's Vision for the Future (2)

A productivity driven growth

INCOME CLASSIFICATION	INVESTMENT	INFUSION	INNOVATION
Low-income	 Higher priority	 Lower priority	 Lower priority
Lower-middle-income	 Higher priority	 Higher priority	 Lower priority
Upper-middle-income	 Higher priority	 Higher priority	 Higher priority

Source: WDR, 2024

- **Boost R&D Spending:** Essential for driving innovation and technological progress.
- **Upgrade Education:** Improve quality to enhance skills and knowledge.
- **Foster Innovation & Productivity:** Support local firms and high-tech clusters.
- **Prioritize Knowledge-Intensive Growth:** Shift focus to tech-driven and productivity-enhancing growth.
- **Advance innovation and creating new local technologies:** Move beyond adopting global technologies
- **Restructure Enterprises:** Adapt work practices and energy use for better efficiency.
- **Promote Economic Freedom:** Encourage social mobility and political contestability for a dynamic economy.

Malaysia is vulnerable to climate impacts

- Increasing temperatures are likely to greatly increase the number of heatwaves occurring annually.
- Variations in precipitation may cause droughts and floods in various local areas.
- Increased flood intensities could lead to erosion of shorelines.
- Sea level rise may inundate some coastal areas.

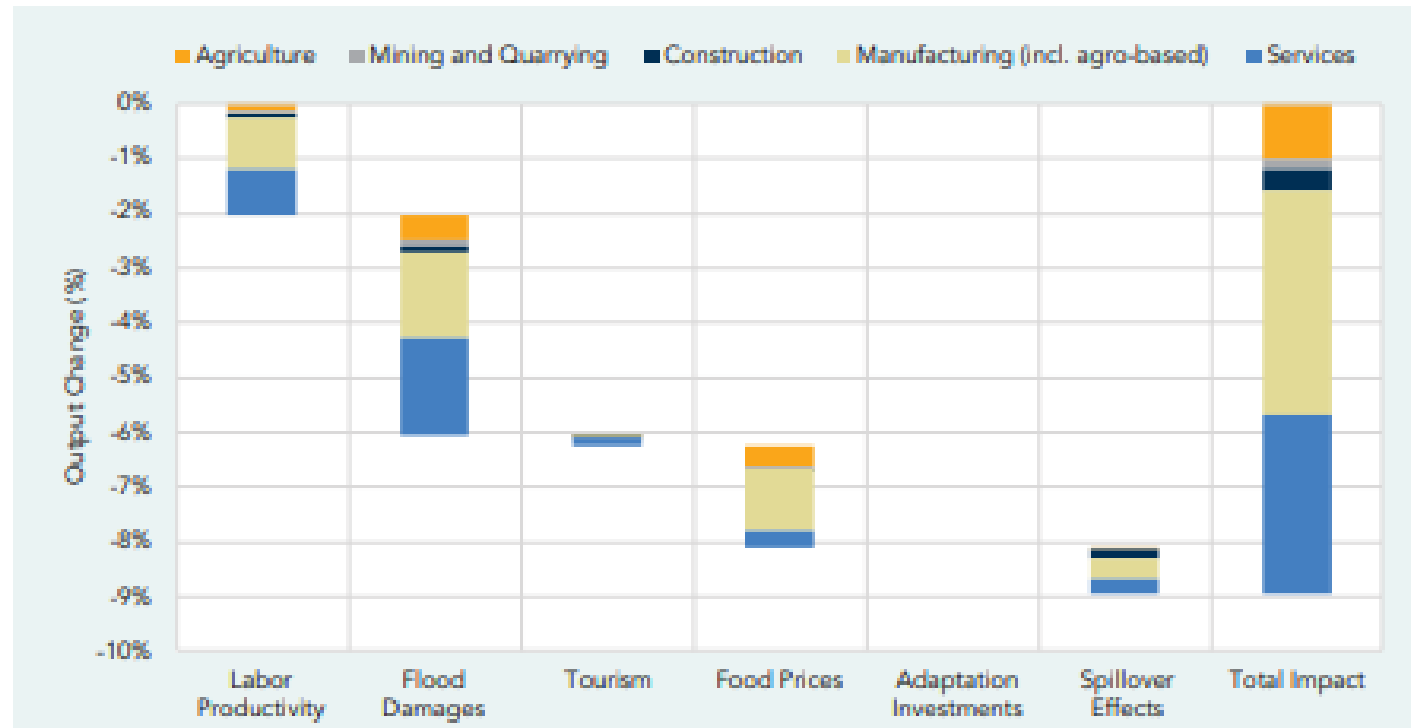
The impacts will include reduced crop yields, increased incidences of disease, tidal inundation of coastal areas, decreased water availability, loss of biodiversity, coral reef bleaching, and more droughts.

- Malaysia is ranked 42nd out of 181 countries in the 2020 ND-GAIN Index.
- Between 1970 and 2013, Peninsular Malaysia, Sabah and Sarawak regions experienced surface mean temperature increase of 0.14°C–0.25°C per decade.
- Modelling indicates that droughts and floods early in the rice-growing season could reduce yields by up to 60%, and drought conditions may impact the cultivation of rubber, palm oil and cocoa.

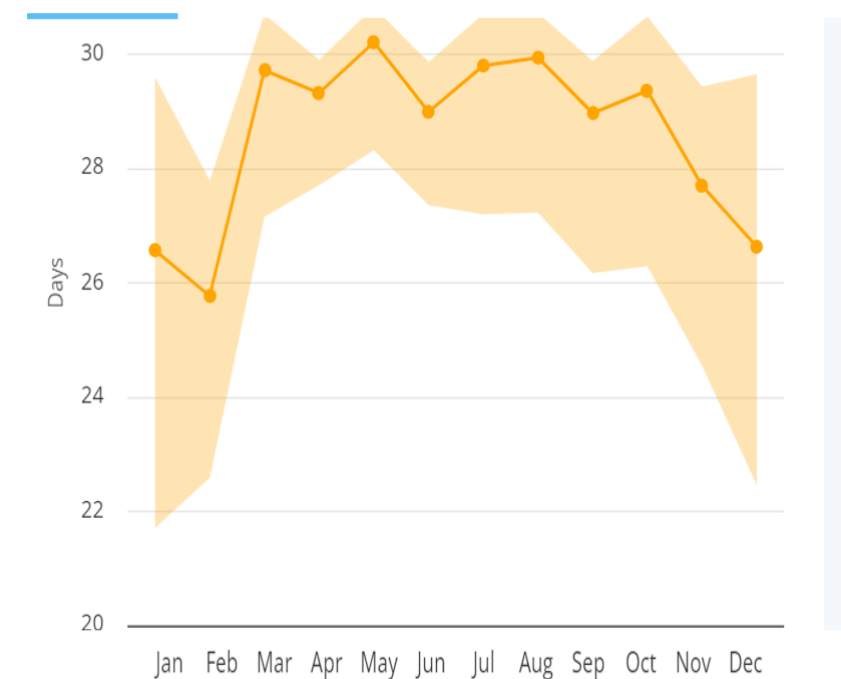
Floods and Heat Stress will become more severe as the climate warms

- Malaysia is vulnerable to a range of climate impacts, but the biggest shocks are likely to be from floods
- Loss of production in a year with a major flood could reach 9% if no adaptation measures are taken

FIGURE 2.5
Climate Change Impacts on Output



Temperature-Based Heat + Population Risk
Categorization categorization by month, for 2040-2059,
Malaysia; SSP5-8.5, 50th percentile



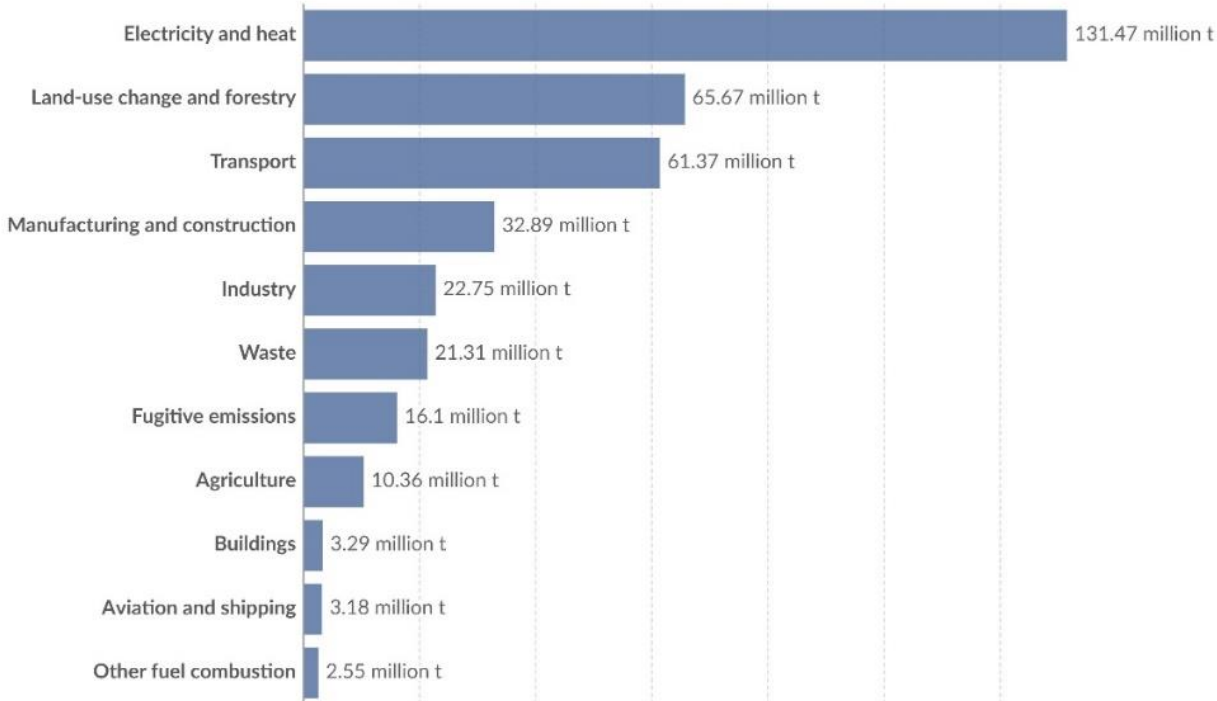
Growing Emissions...

Malaysia is the **25th largest emitter globally**, accounting for only 0.8% of global emissions. GHG emissions are predominantly from electricity and heat, LUCF, and transport sectors.

Per capita CO2 emissions has rapidly risen over the past several decades.

Greenhouse gas emissions by sector, Malaysia, 2020

Greenhouse gas emissions¹ are measured in tonnes of carbon dioxide-equivalents² over a 100-year timescale.

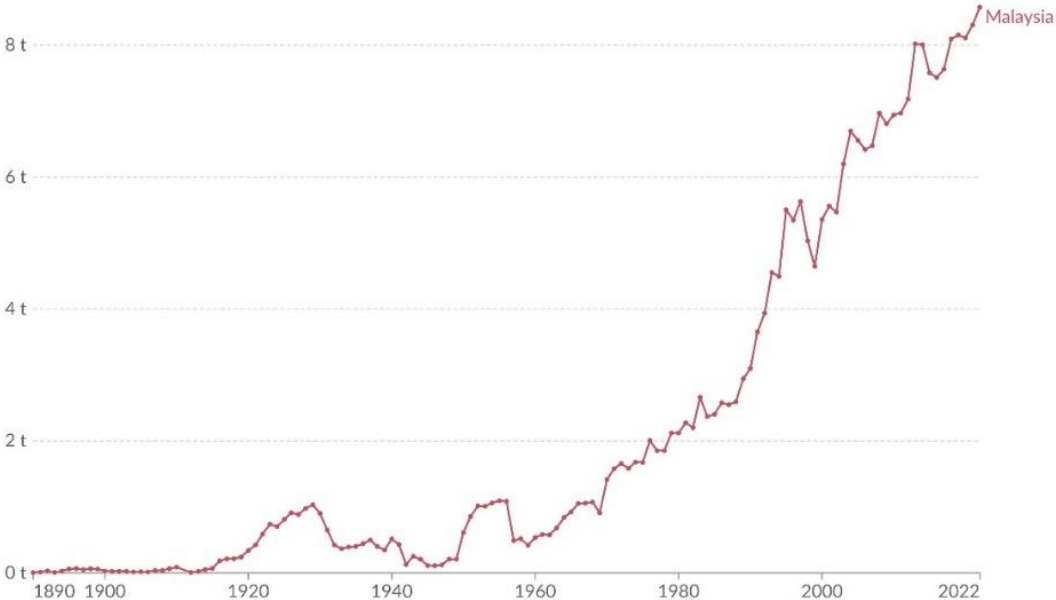


Data source: Climate Watch (2023)

OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY

Per capita CO2 emissions

Carbon dioxide (CO₂) emissions from fossil fuels and industry¹. Land-use change is not included.



Data source: Global Carbon Budget (2023); Population based on various sources (2023)
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1. Fossil emissions: Fossil emissions measure the quantity of carbon dioxide (CO₂) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO₂ includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.

Malaysia's Climate Commitments

- Malaysia commits to **net zero by 2050 and a 45% reduction in carbon intensity by 2030** (unconditional commitment in NDC).
- Sectoral targets by **2025** include **25% government green procurement, 40% recycling rate of household waste, and 67% reduction in HCFC consumption.**
- **At least 20% of terrestrial and inland water areas and 10% of coastal and marine areas** will be conserved through gazettelement and other measures.
- Implementation of **10 Integrated River Basin Management (IRBM)** Plans and introduction of the Policy on **Disaster Risk Management by 2025.**
- The updated NDC increases the carbon intensity reduction target by 10%, expands GHG coverage to seven gases, and includes sectors such as Energy, IPPU, Waste, Agriculture, and LULUCF.

Triple threats to growth but opportunities



What is a CCDR?

Objective

Capture the **interplay** between each **country's development goals** and **climate change**.

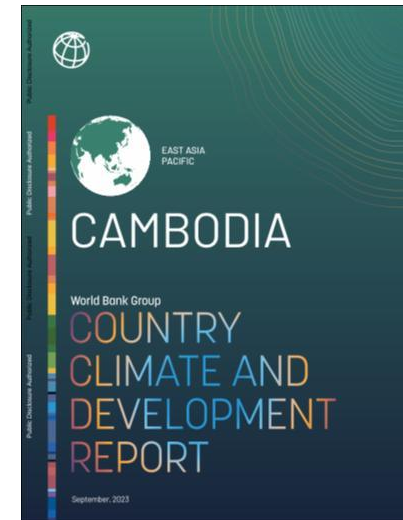
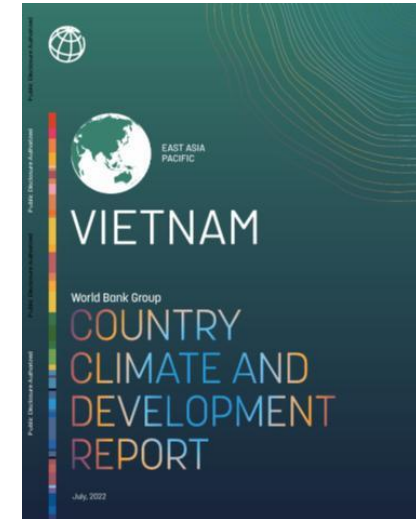
Inform policy and institutional reforms, as well as public and private investments, to support high-impact climate action.

Target Stakeholders

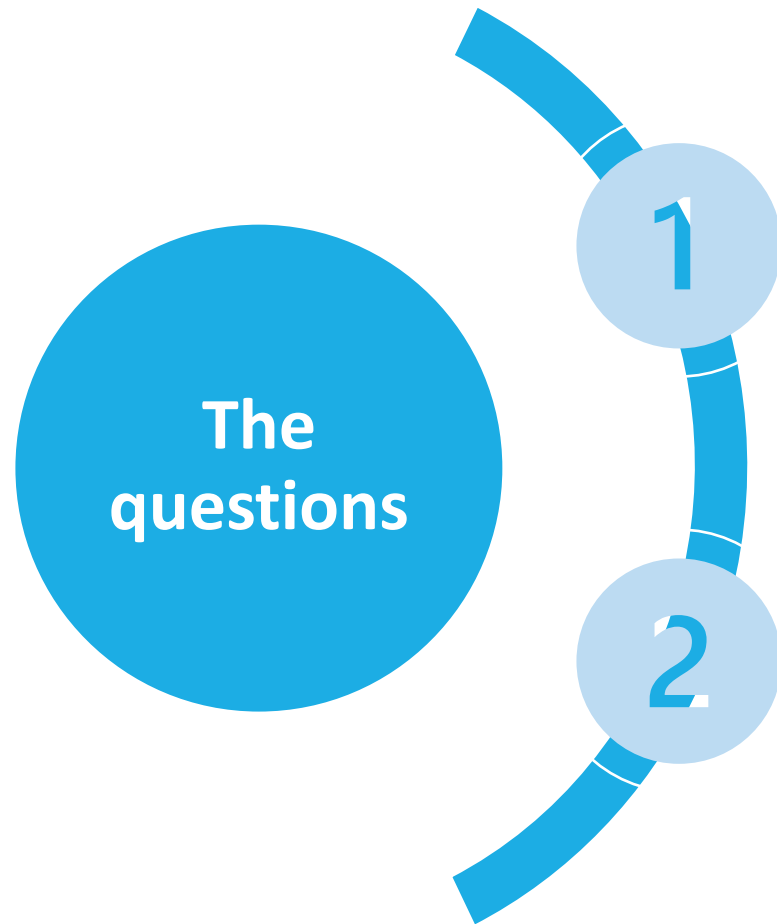
As **public documents**, CCDRs can **inform governments, citizens, private sector, and partners to engage on the development and climate agenda**, supported by **better coordination** at the country level.

Key Elements

- Assess how climate change could impact development
- Analyze how the country's development goals can be achieved in the context of mitigating and adapting to climate change
- Consider and reflect the country's commitments as embedded in Nationally Determined Contributions (NDC)
- Identify ways to support implementation of NDC and other country commitments



The CCDR will ask: how should Malaysia chart its future development path considering climate change impacts, its mitigation and adaptation goals?



How will Malaysia's ability to meet key development goals be affected by:

- i) Physical risks from climate change?
- ii) The net zero transition of other countries?
- iii) Malaysia's own decarbonization policies?

What can the Government do to improve their ability to meet these goals?

- i) How and where should the marginal dollar be spent to build resilience and adapt to climate risks?
- ii) How can Malaysia ensure it achieves economic transformation in this changing global economic landscape?
- iii) Which policies can achieve decarbonization with the best consequences for development?
- iv) What are the synergies between adaptation and mitigation?

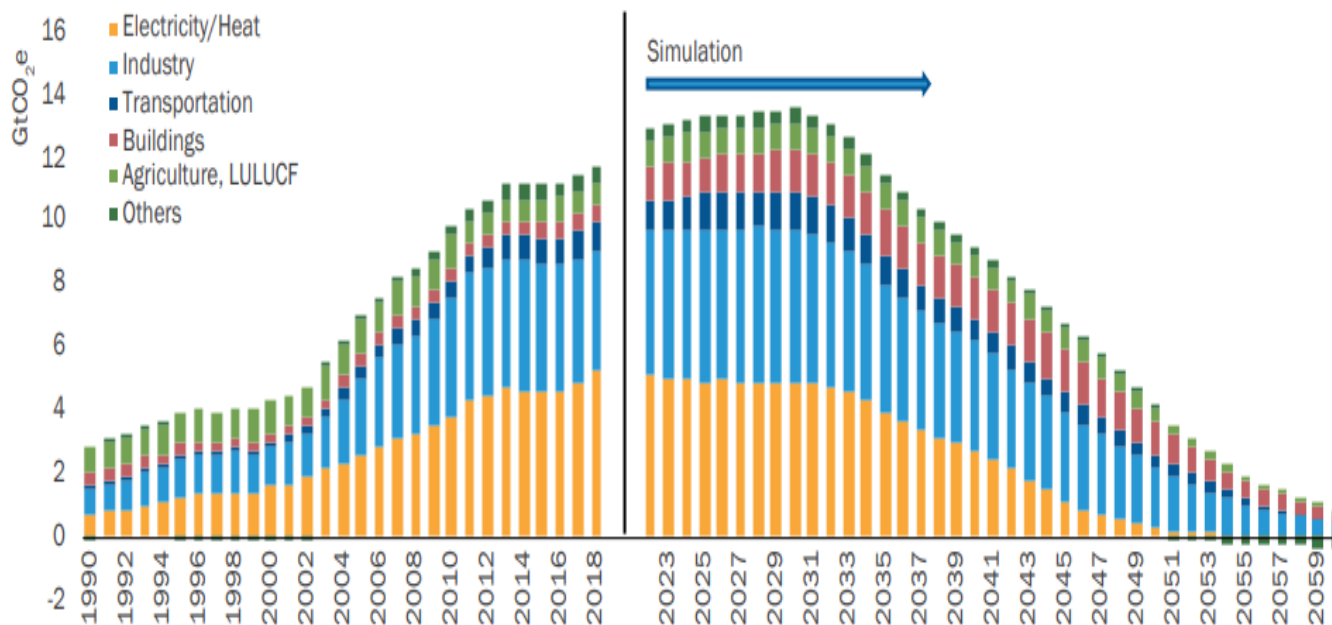
How CCDRs are Informing Action on Climate

China

China need a total US\$14 trillion in additional investments from now until 2060 for the power and transport sectors alone, equivalent to 0.97 percent of GDP.

Many of energy investments will bring **significant energy efficiency gains** and **operating cost savings** that would make these investments not only economically viable but financially attractive

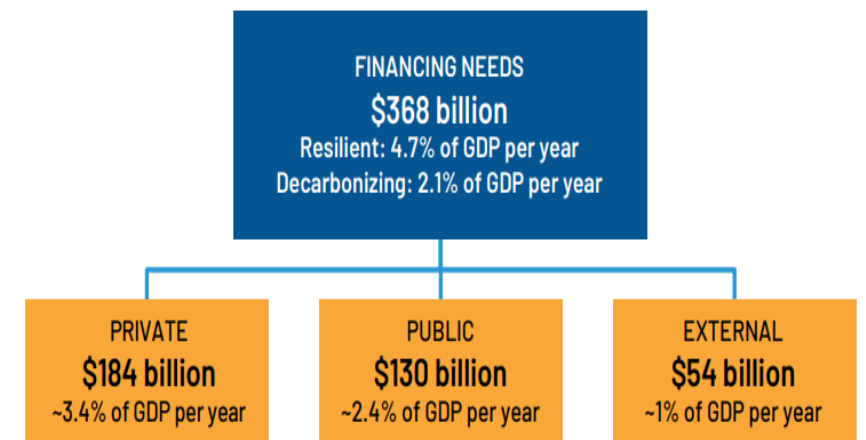
Pathway to Carbon Neutrality



Vietnam

\$ billion in NPV terms

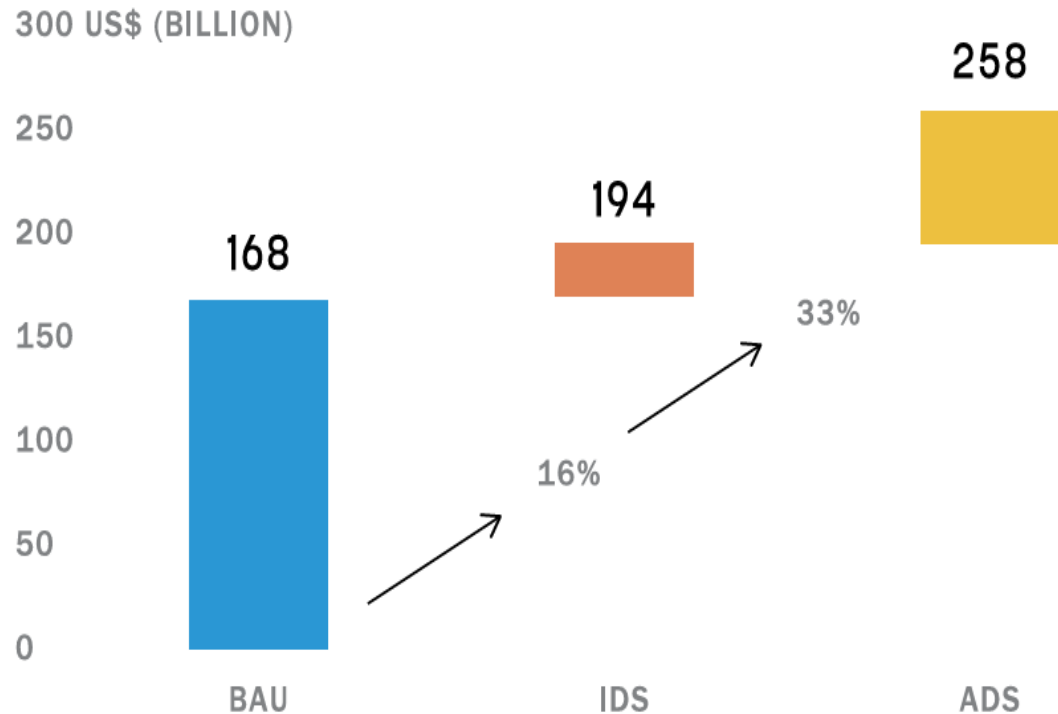
	2022-2030	2031-2040	2022-2040
NZP			
Investment needs	31.8	49.5	81.3
Output gains	-7.6	-46.0	-53.7
Net economic impact	-39.4	-95.5	-134.9
NZP with supporting reforms			
Investment needs	31.8	49.5	81.3
Output gains	11.3	68.7	80.1
Net economic impact	-20.5	19.3	-1.3



Note: NPV discounted at 6 percent.

How CCDRs are Informing Action on Climate

Indonesia



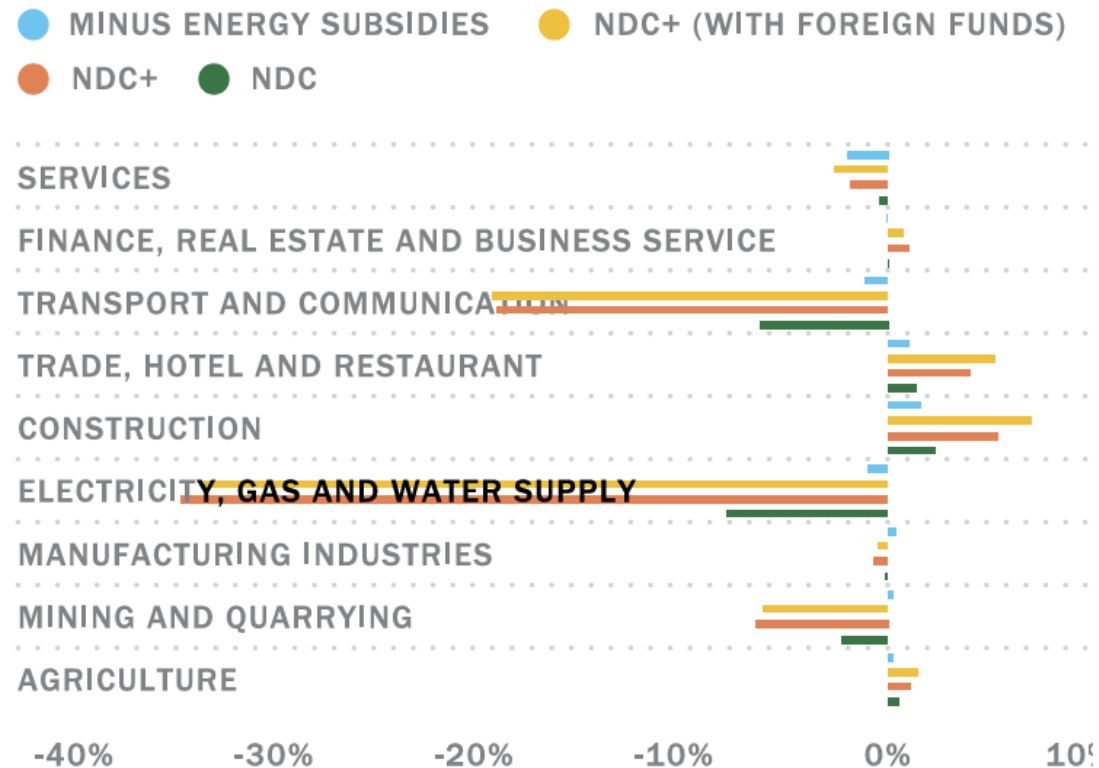
Note: BAU: Business as usual; IDS: Intermediate decarbonization scenario; ADS: advanced decarbonization scenario

- To meet net zero plan, Indonesia needs to raise **50% higher investment** under ADS than BAU scenario.
- Private sectors play a pivotal role in raising an estimated two-thirds of capital investments, about **US\$200-220 billion (undiscounted terms)** between 2022 and 2040, through renewable energy projects (214 GW by 2040 under ADS).
- Public investments create favorable environment for leveraging investments require an estimate of about **US\$100-120 billion (undiscounted terms)** between 2022 and 2040.

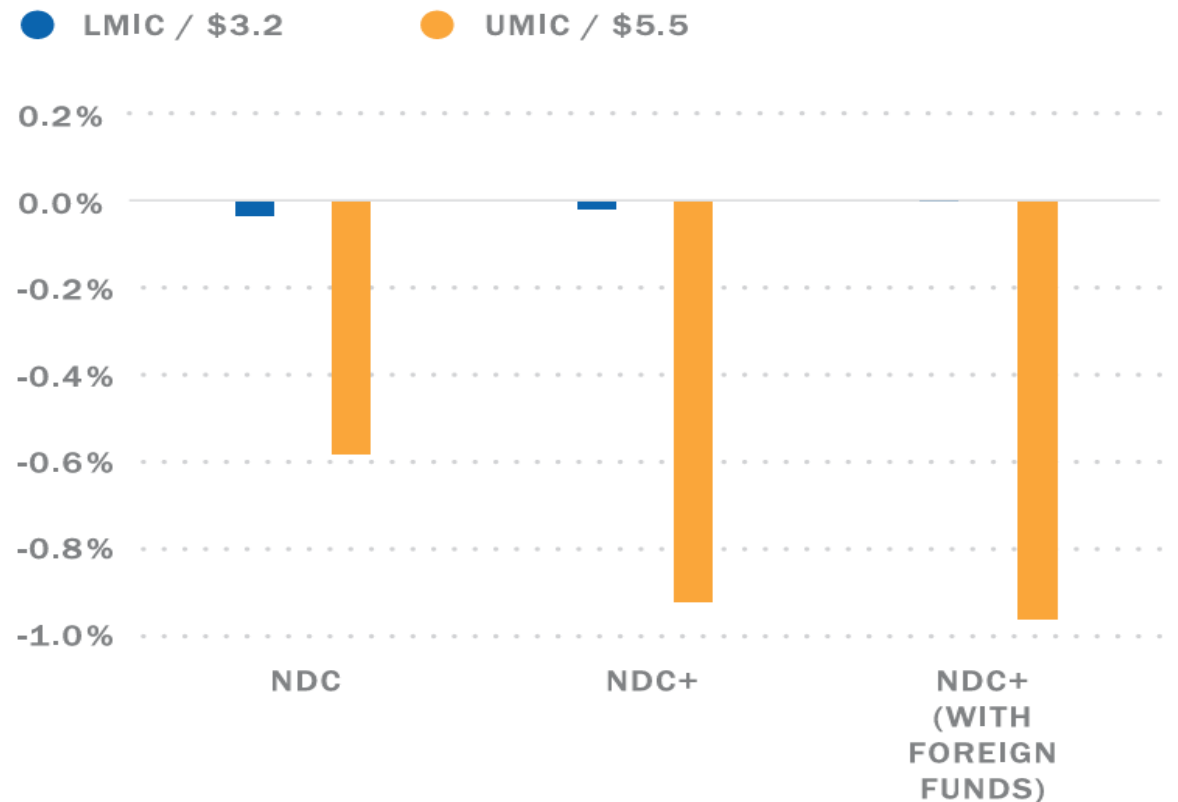
Distributional and employment implications

Indonesia

Employment Relative to BAU by 2040 (percentage points)



Change in Poverty Rates vs. BaU by 2040 (percentage points)



Negative impacts on employment belong to energy-intensive sectors due to carbon tax.

Thanks to social assistance, climate actions can make the poverty decline.

Key questions: Striking the Balance between Climate and Economic Development

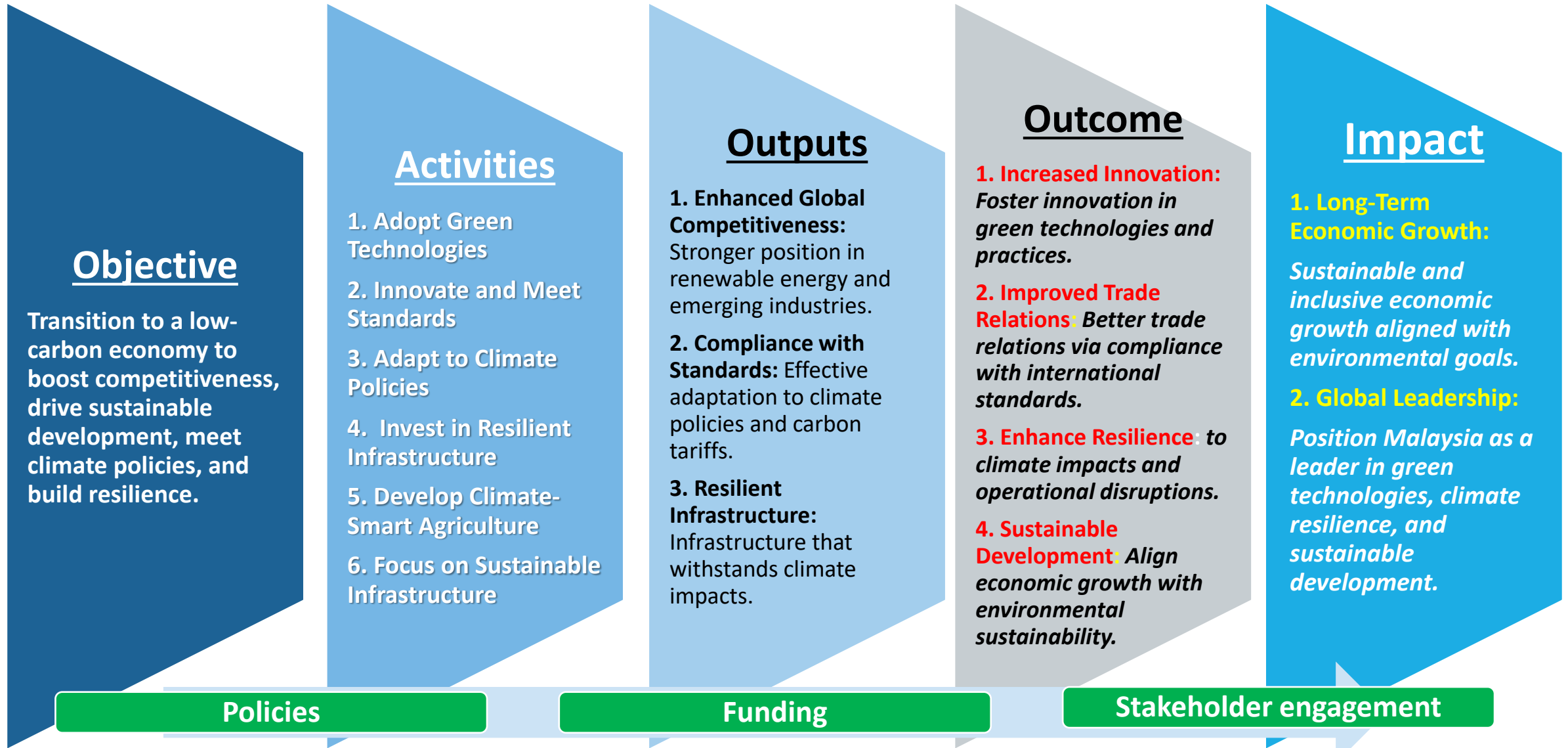
How can Malaysia capture growth opportunities associated with the **green transition**, and further progress its transition from a middle-income to a high-income country?

What are the needed capabilities which would allow Malaysia to further diversity export product portfolio specifically in green value chains

What are the barriers to unlocking growth, technological upgrading, and capability development?

What policies or strategies could help overcome these barriers?

Going forward: Theory of Change



Thank you



CCDR Methodology

