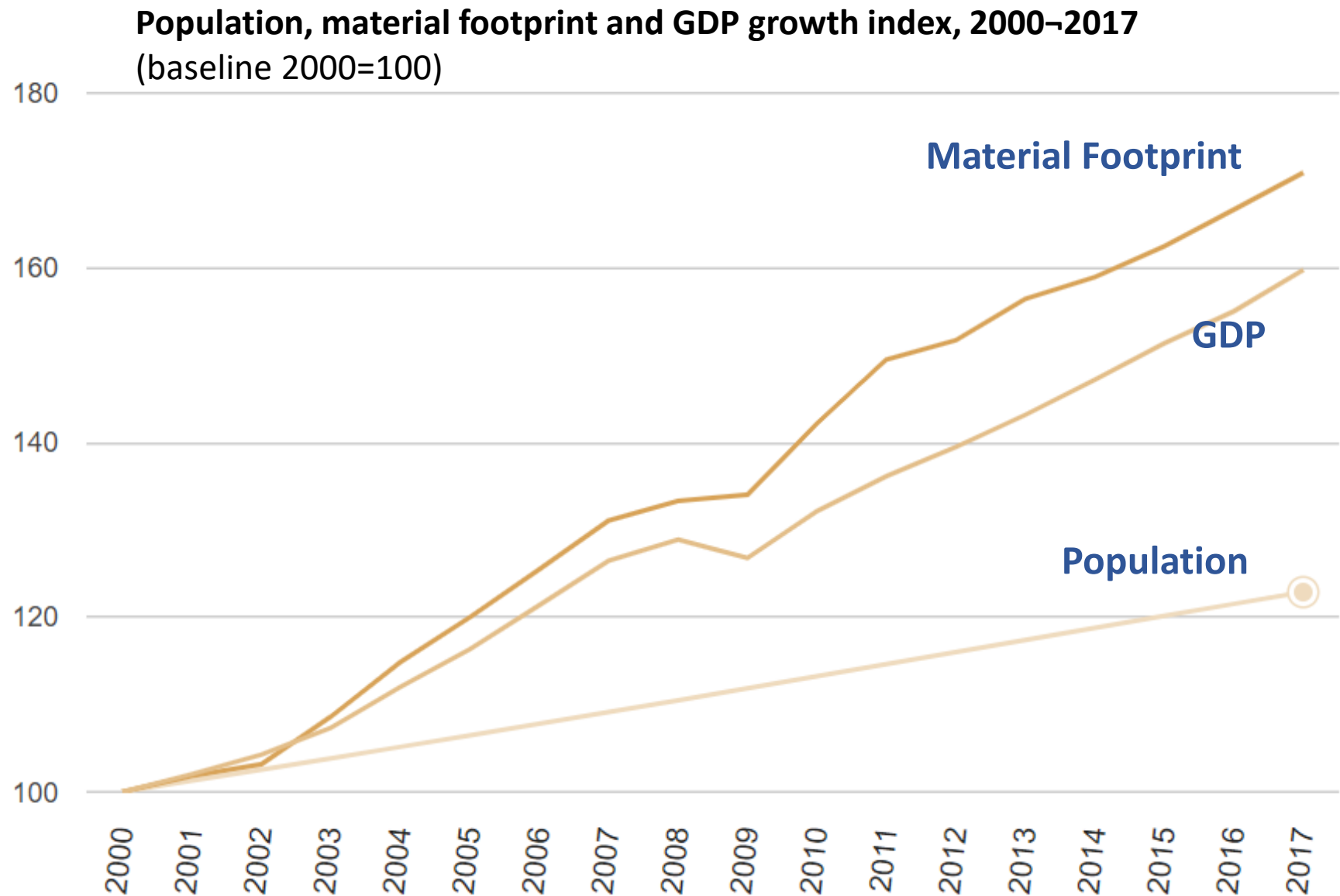


FLATTENING THE *RESOURCE* CURVE:

MAKING DEVELOPMENT **WORK** FOR PEOPLE AND PLANET



Global material footprint rapidly growing, *outpacing* population and economic growth



Is it possible to

Decouple

material footprint
growth from
economic growth?

HOW DID WE GET HERE?





Port Klang

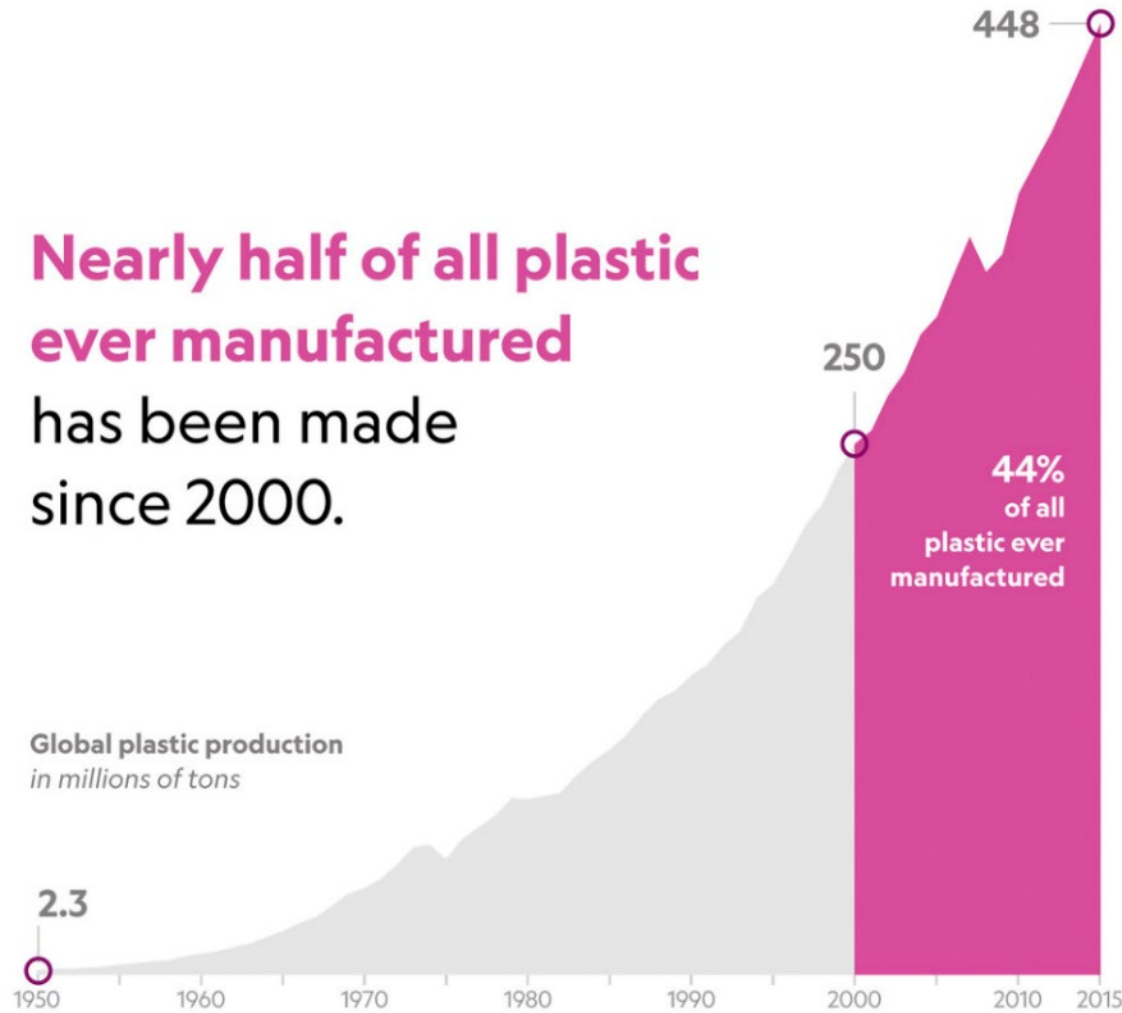
Popular
weekend picnic
area

Picture taken 2018



Plastics Growth is Exponential

Nearly half of all plastic ever manufactured has been made since 2000.



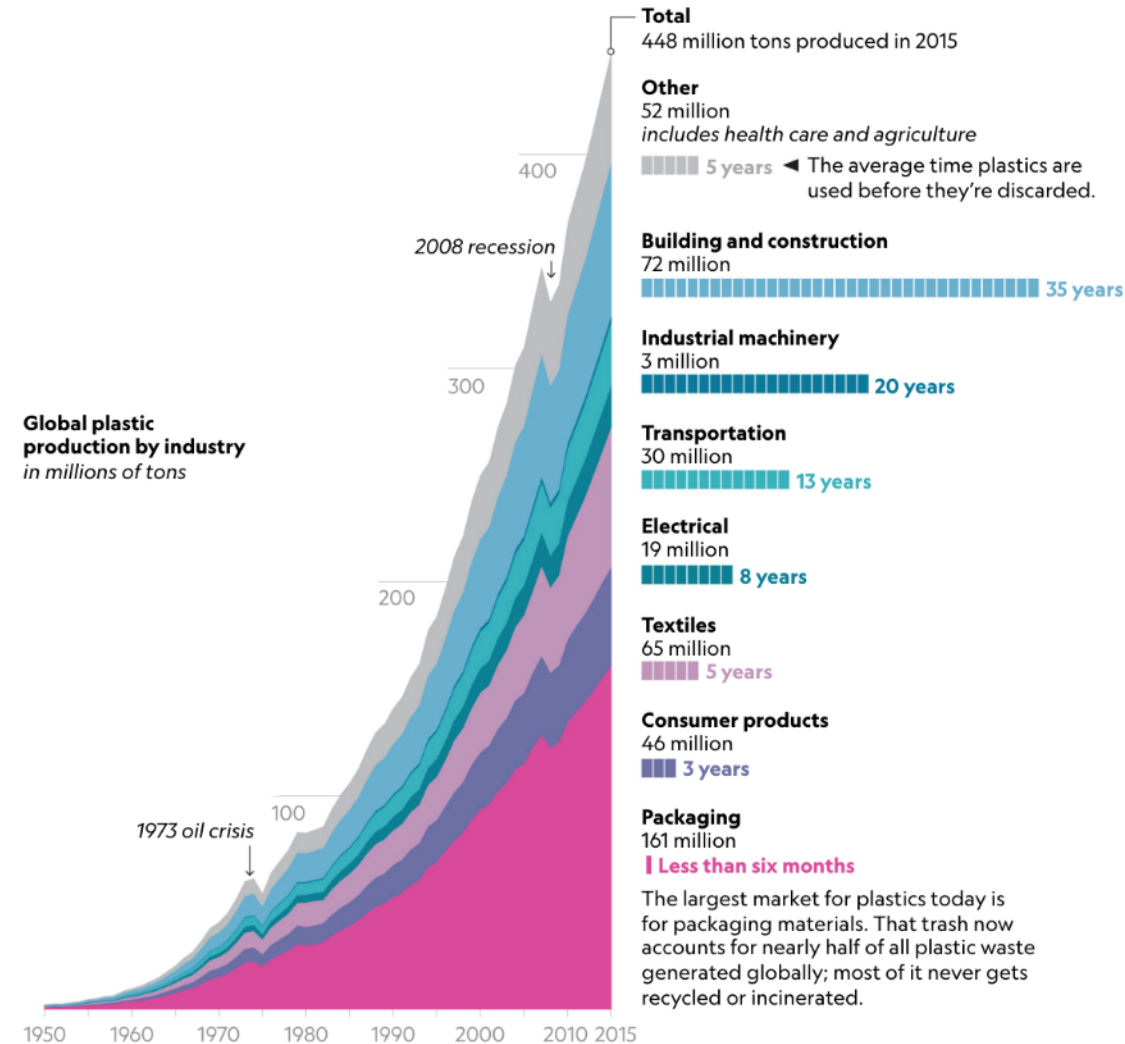
NGM STAFF. SOURCE: ROLAND GEYER, UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Source: National Geographic



A LIFETIME OF PLASTIC

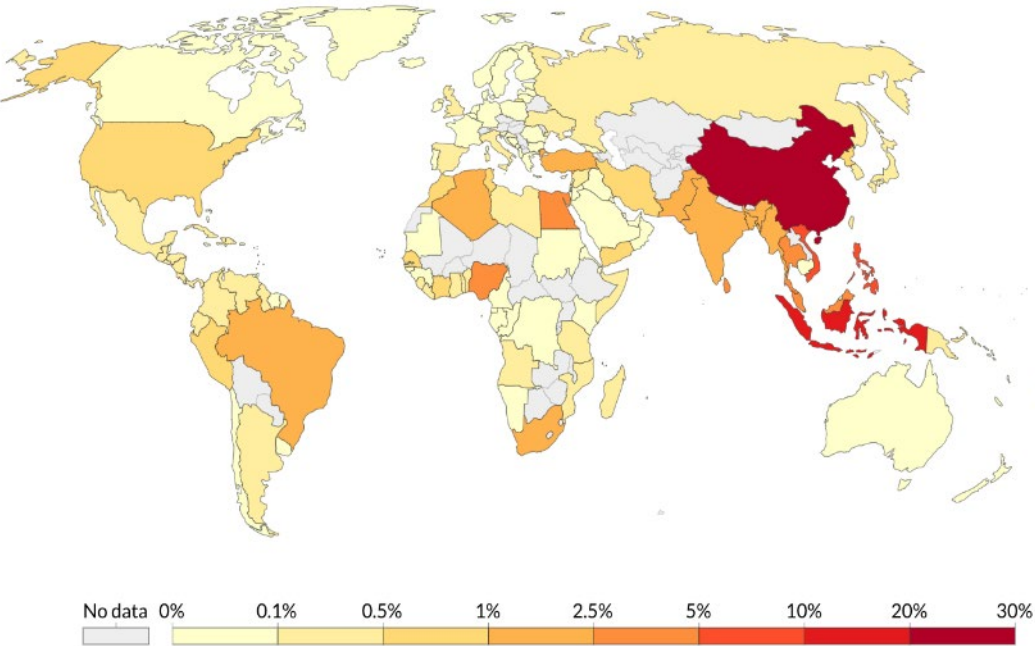
The first plastics made from fossil fuels are just over a century old. They came into widespread use after World War II and are found today in everything from cars to medical devices to food packaging. Their useful lifetime varies. Once disposed of, they break down into smaller fragments that linger for centuries.



East Asia and Pacific: Regional Hotspot For Plastics Leakage

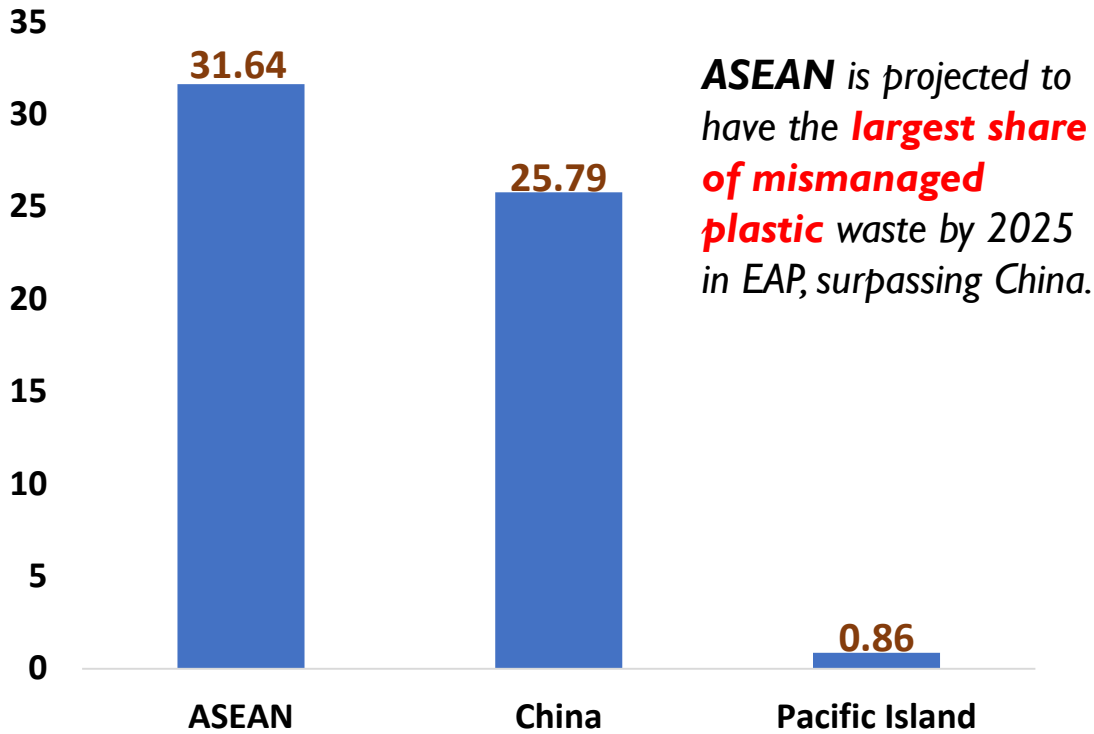
Share of Global Mismatched Plastic Waste in 2010 (% of total)

Note: China bans all waste imports (including plastic waste) in 2018



Source: Jambeck et al. (2015) Plastic waste inputs from land into the ocean.

Projected Share of Global Mismatched Waste in 2025 (% of total)



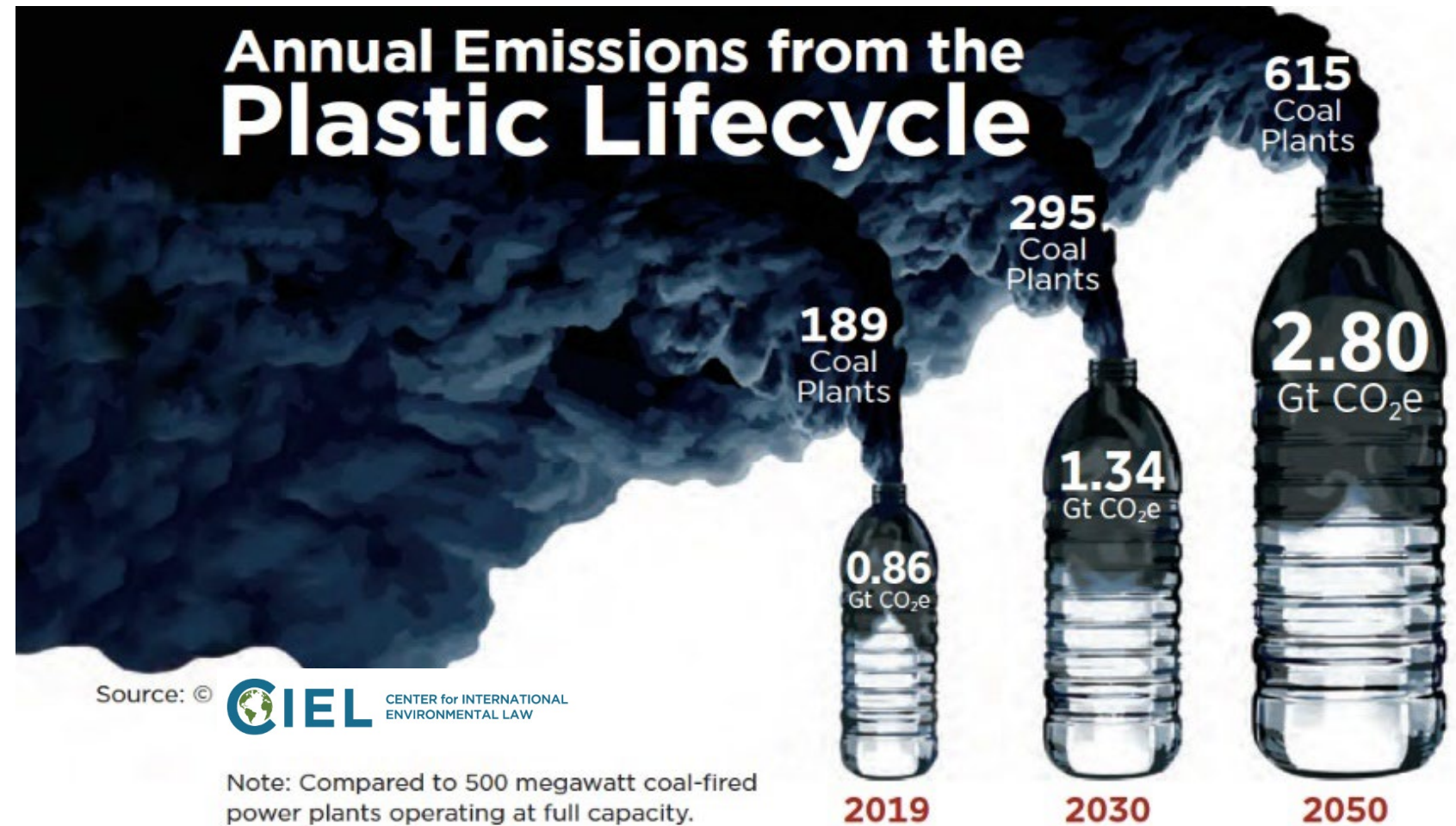
Source: Jambeck et al. (2015) Plastic waste inputs from land into the ocean.

Significant Impacts to Economy, Food Security, Climate and Health

Impacts are significant



Emissions equivalent if plastics growth is not reduced



Source:
https://sustainabledevelopment.un.org/content/documents/Ocean_Fact_sheet_Pollution.pdf

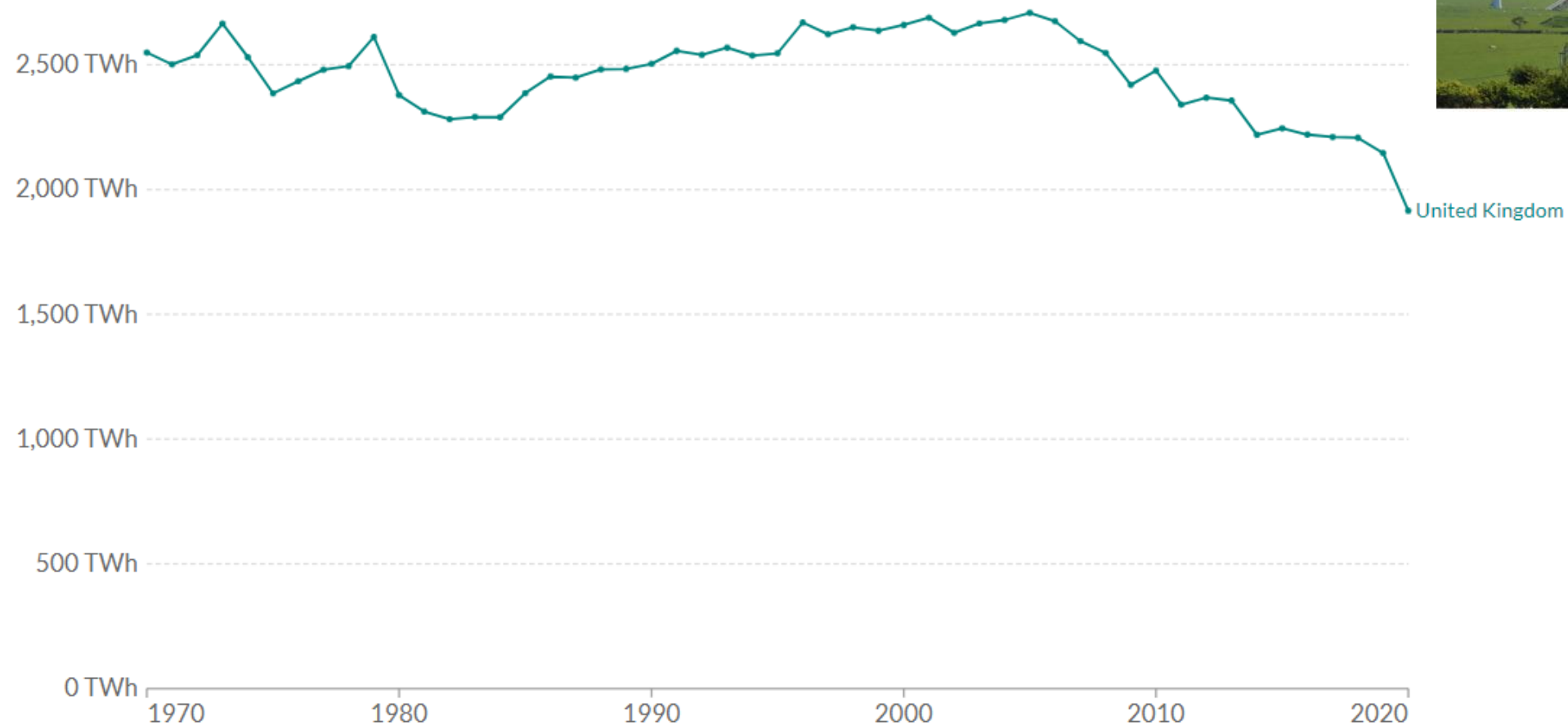
<https://www.ciel.org/project-update/plastic-climate-the-hidden-costs-of-a-plastic-planet/#:~:text=In%202019%2C%20the%20production%20and,hundred%2Dmegawatt%20coal%20power%20plants.>



The UK now consumes less energy than back in 1970

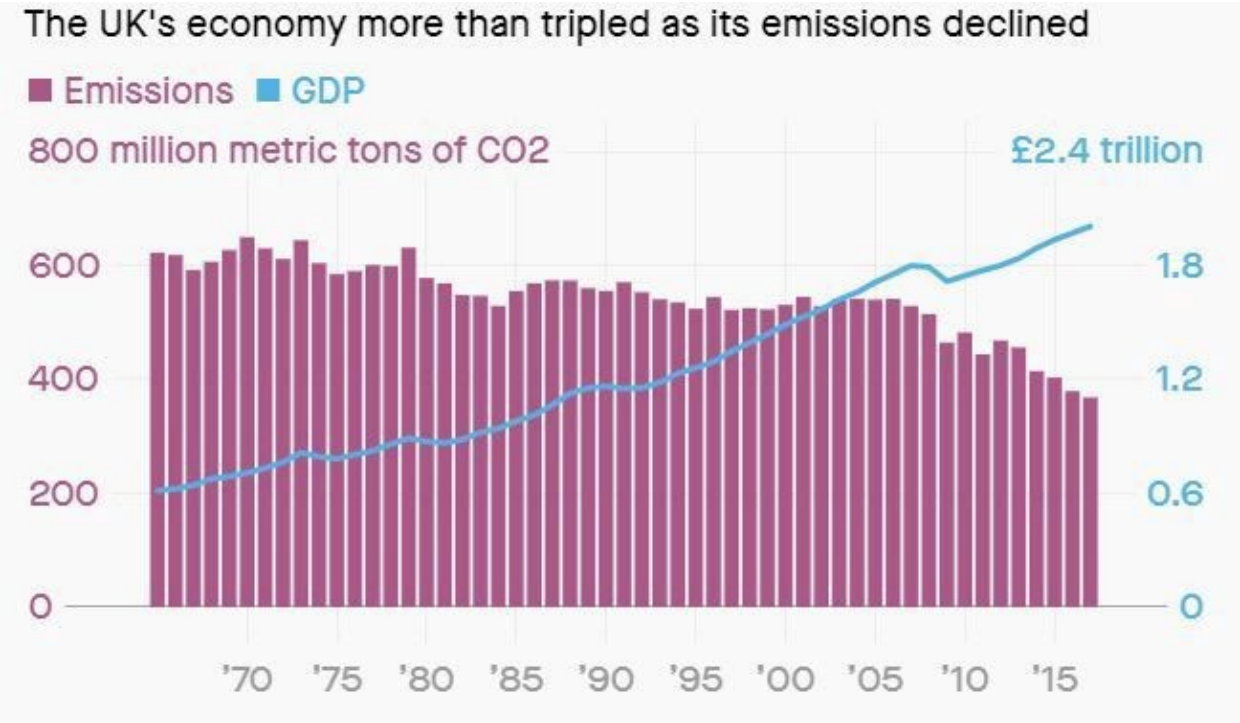
Primary energy consumption

Primary energy consumption is measured in terawatt-hours (TWh).

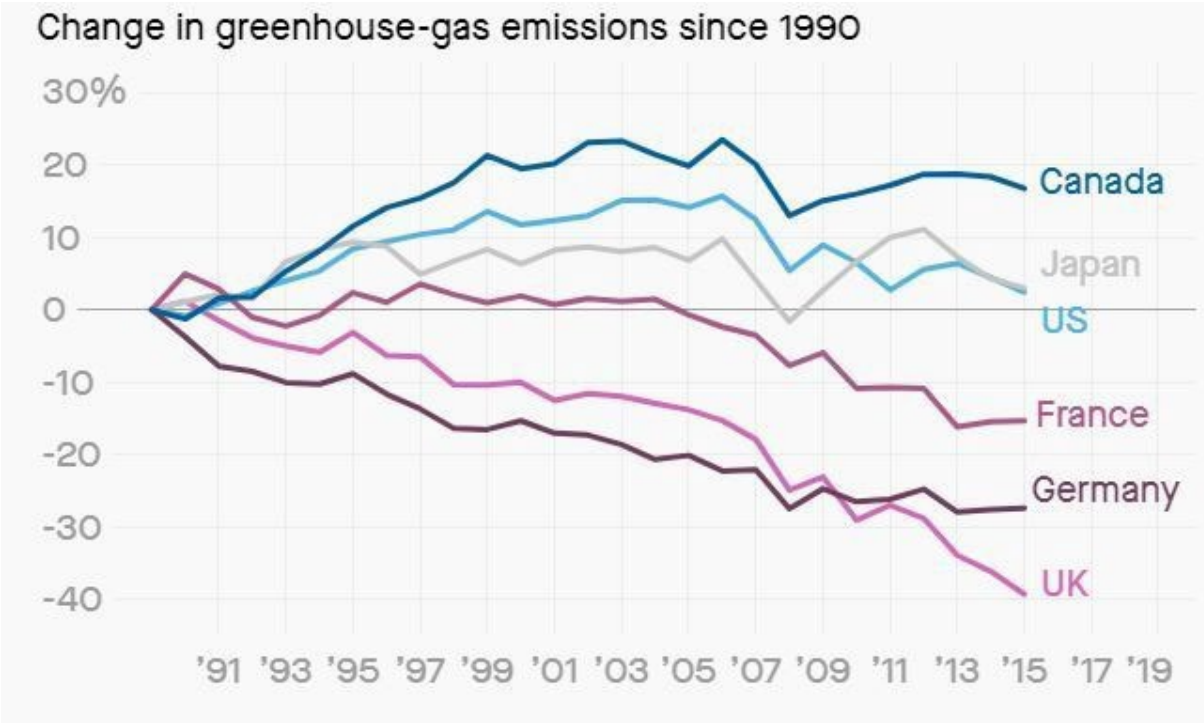


Source: BP Statistical Review of World Energy; and EIA

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



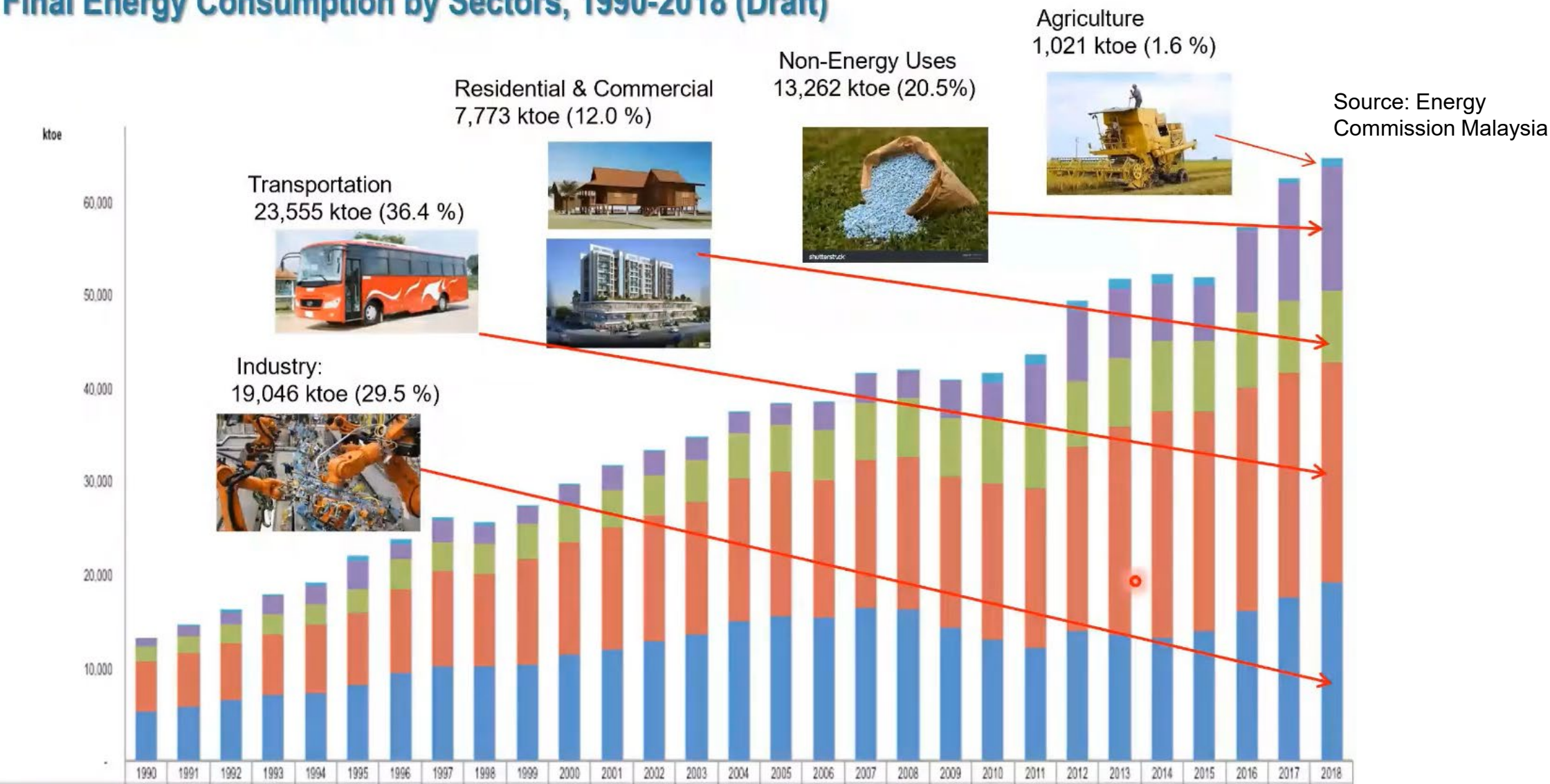
Source: UK Dept for Business, Energy and Industrial Strategy (BEIS), WRI



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

In Malaysia, Growth of Energy Consumption by sectors

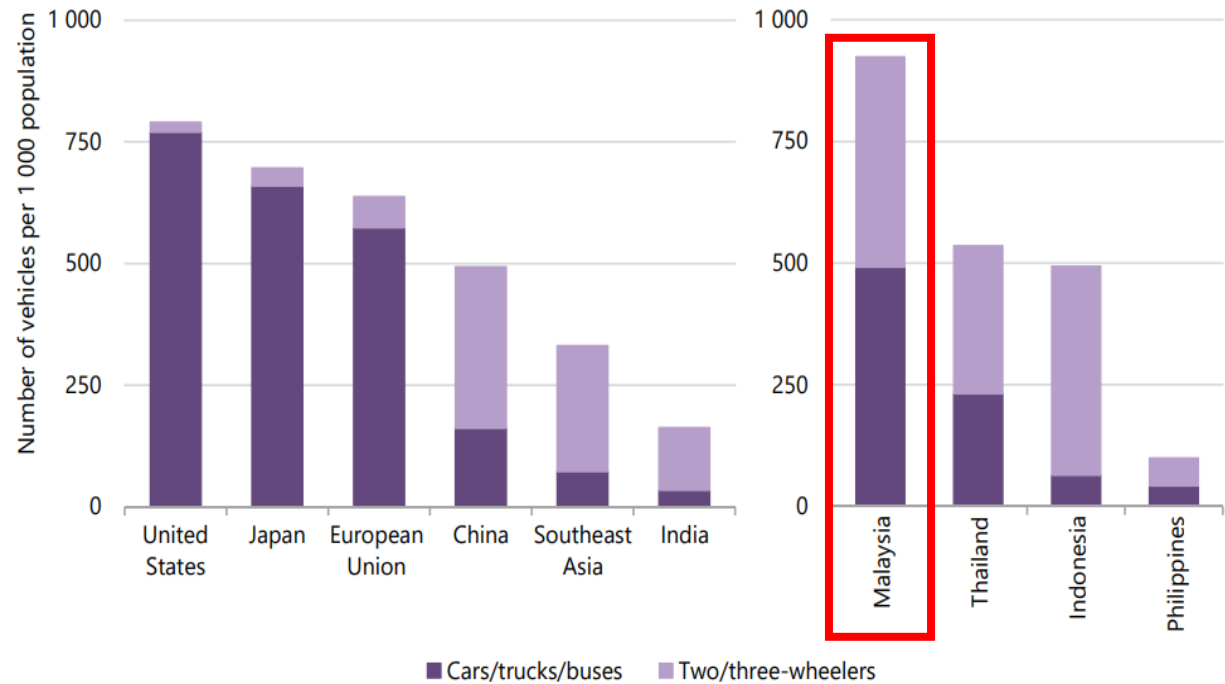
Final Energy Consumption by Sectors, 1990-2018 (Draft)



Malaysia has the highest vehicle ownership per capita in South-East Asia, as of 2021, there are more vehicles than people, with 33.3 million registered vehicles, compared to 32.6 million population

Transport sector contributes 14% of national emissions, with 89% from road transport

Vehicle ownership in Southeast Asia and selected countries, 2017



Sources: The ASEAN Secretariat (2018); IEA analysis.

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



Integrate Transport Networks (including rail, buses) with Urban Planning and Inter-State Connectivity:
which could lead to substantial reductions in transport emissions

**More Cars means More Roads and Highways,
means More Cement and Steel**

OUTSIDE NEGATIVE SPILLOVER IMPLICATIONS

Cement Industry: Impact on hills, loss of biodiversity and resilience



- <https://www.nst.com.my/opinion/letters/2024/04/1041825/dont-ignore-potential-risks-limestone-formations>

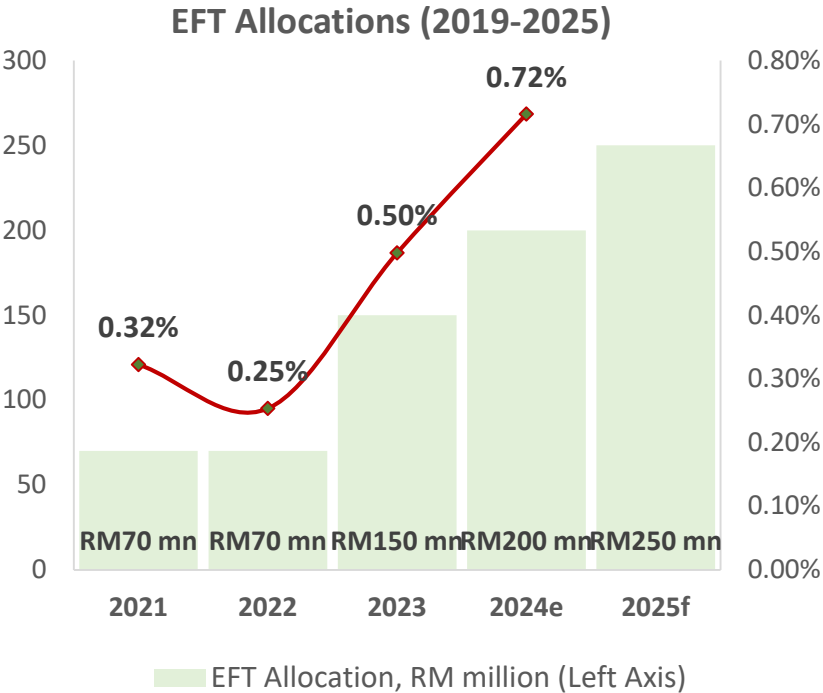
<https://consumer.org.my/protect-the-400-million-year-old-peraks-limestone-hills-from-exploitation/>

Tackle, Transition, Transform:

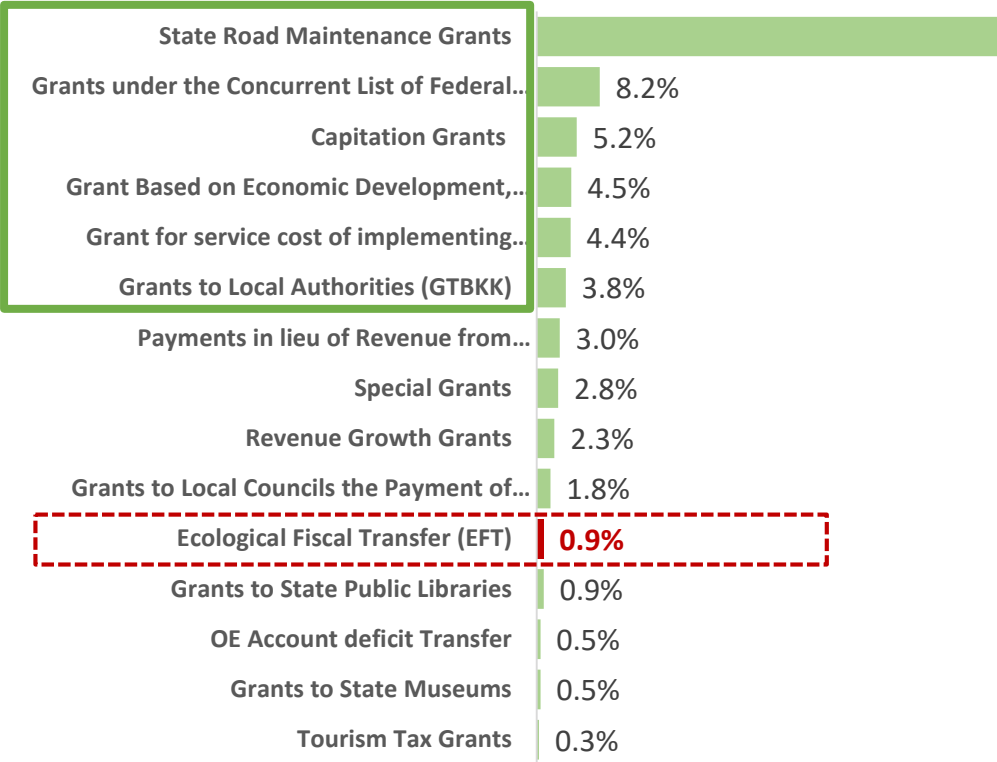
Recommendations for Policies & Institutions

Public Finance: **States' revenues** are mainly **natural-resource related**, creating a **disincentive to protect the environment**.

EFT Allocations and EFT as a percentage of State-Generated Revenue



EFT as a percentage of Total Intergovernmental Federal-to-State Transfers, Average (2020-2023)

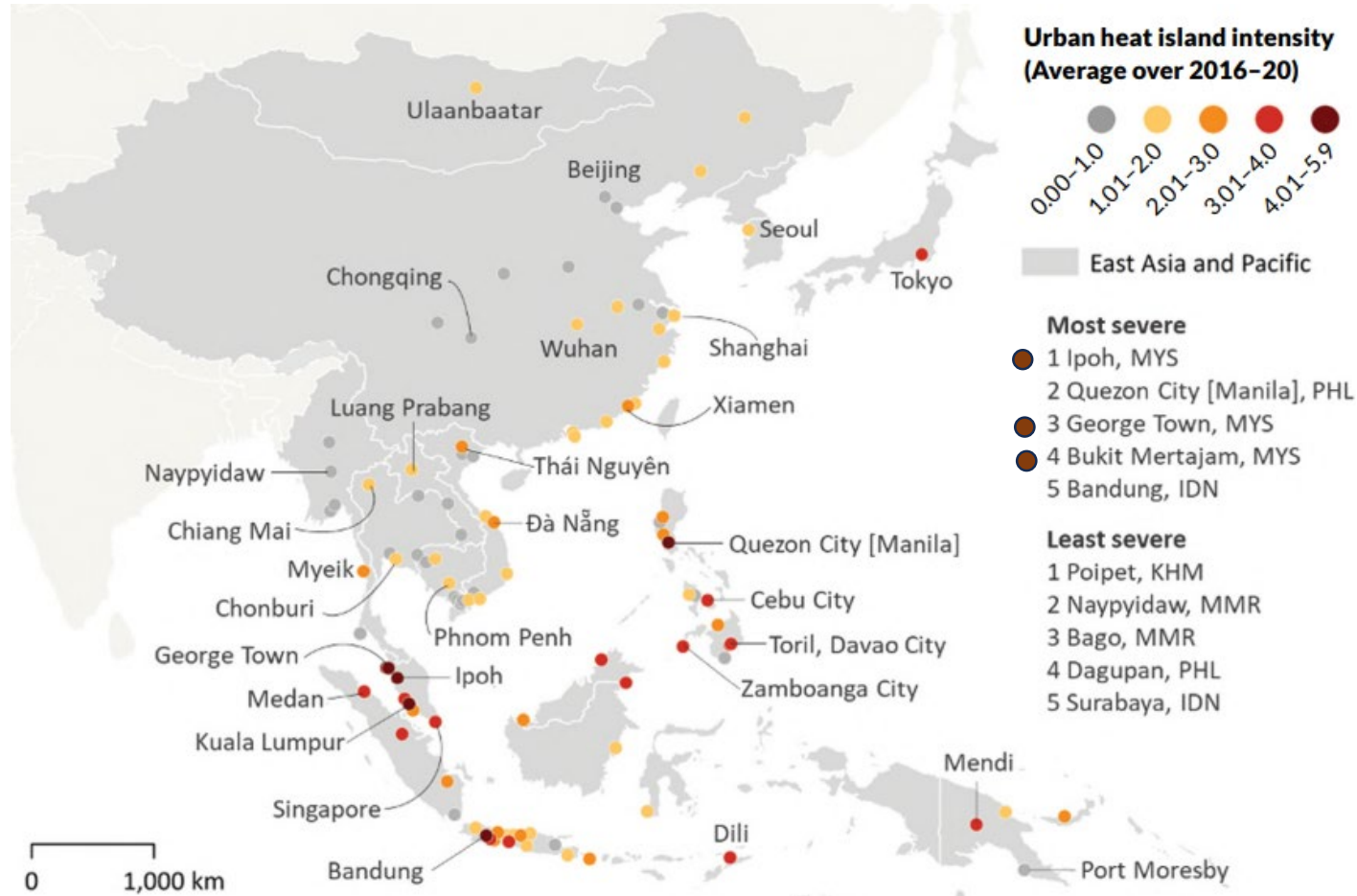


Policy Recommendation

1. Develop performance-based mechanisms to incentivize state alignment to national climate priorities.
2. Formalize EFT, increase its size and enhance transparency of the system

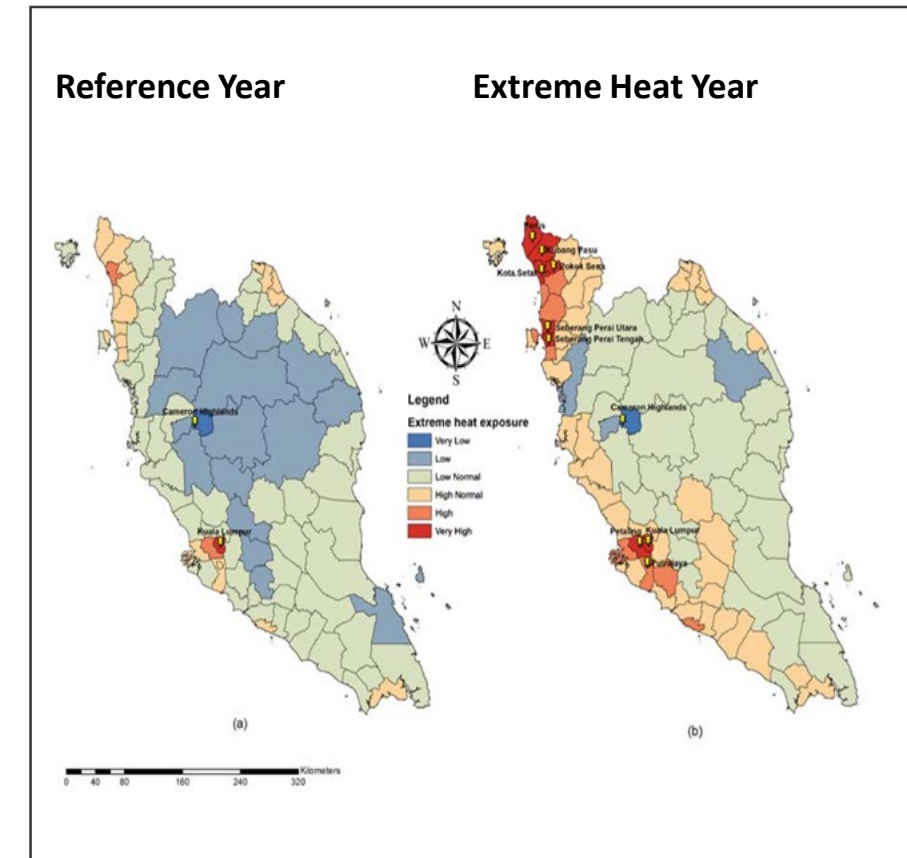
Source: MOF, Estimated Federal Government Expenditure Documents, Budget Speeches
Note: 2024's figure is an estimate, 2025's figure is a forecast. The EFT was temporarily halted in 2020.

Malaysia is one of the **three countries most severely affected** by Urban Heat Island effects in Asia, when compared to 100 cities in 14 countries



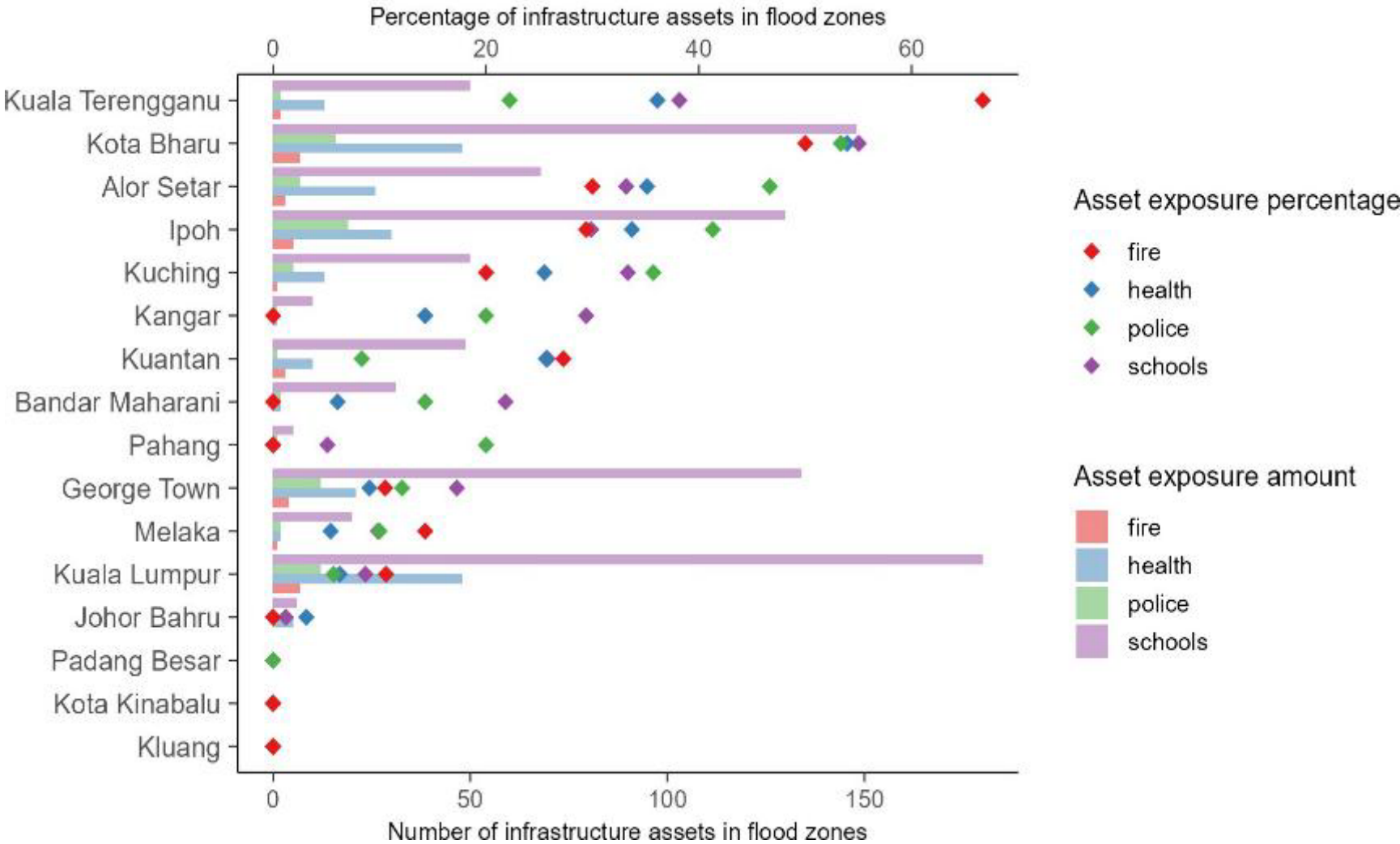
Source: Unlivable Report, World Bank 2023

Peninsular Malaysia: Extreme Heat Exposure





Fluvial floods are greatest economic threat to infrastructure, especially in urban areas



In 2021, **ten urban districts accounted for 59%** of Malaysia’s flood losses, reaching RM2.38 billion (US\$539 million) in 2025.

20-40% of densely populated areas are **at flood risk**.

Poorer districts where high **exposure** are more vulnerable due to less durable housing, outdoor-dependent livelihoods, and limited access to savings or insurance.

The risk is growing due to the **lack of proper planning and enforcement**.

Recommendations: Where to spend the marginal\$

