

GTALCC

Green Technology Application for the Development of Low Carbon Cities

MANAGEMENT OF THE GREEN ECONOMY

- A WIN-WIN APPROACH TO SUSTAINABLE DEVELOPMENT

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MEA 12MP Kick-Off Conference



Greta Thunberg – School Strike for Climate

“

I want to hear about how we are going to stop the increase in emissions by 2020, and dramatically reduce emissions to reach net-zero emissions by mid-century

”

UN Secretary-General António Guterres

UN Secretary-General António Guterres is calling on all leaders to come to New York 21-23 September 2019 with concrete, realistic plans to **enhance their nationally determined contributions by 2020**, in line with reducing greenhouse gas emissions by **45%** over the next decade, and to **net zero emissions by 2050**



Green Economy

“

one that results in **improved human well-being** and **social equity**, while **significantly reducing environmental risks and ecological scarcities**

UNEP Green Economy Definition

”

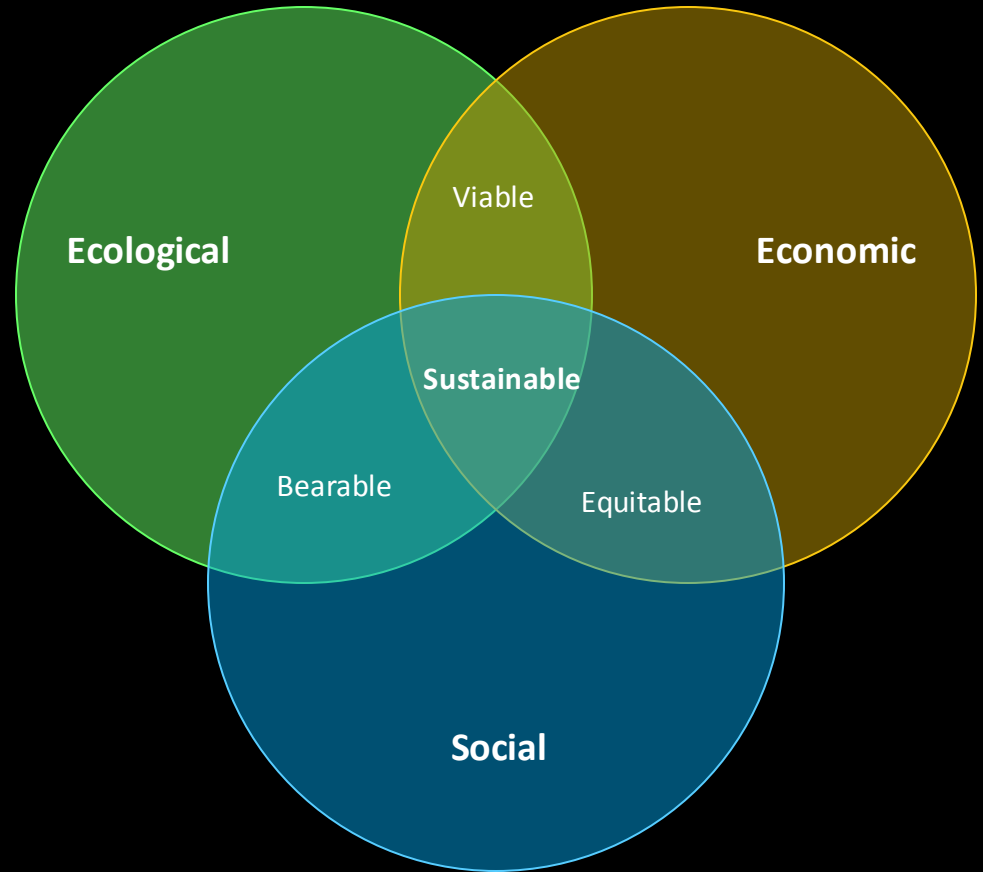
Green Growth

“

fostering **economic growth** and development, while ensuring that **natural assets continue to provide the resources and environmental services** on which our **well-being** relies

OECD Green Growth Definition

”



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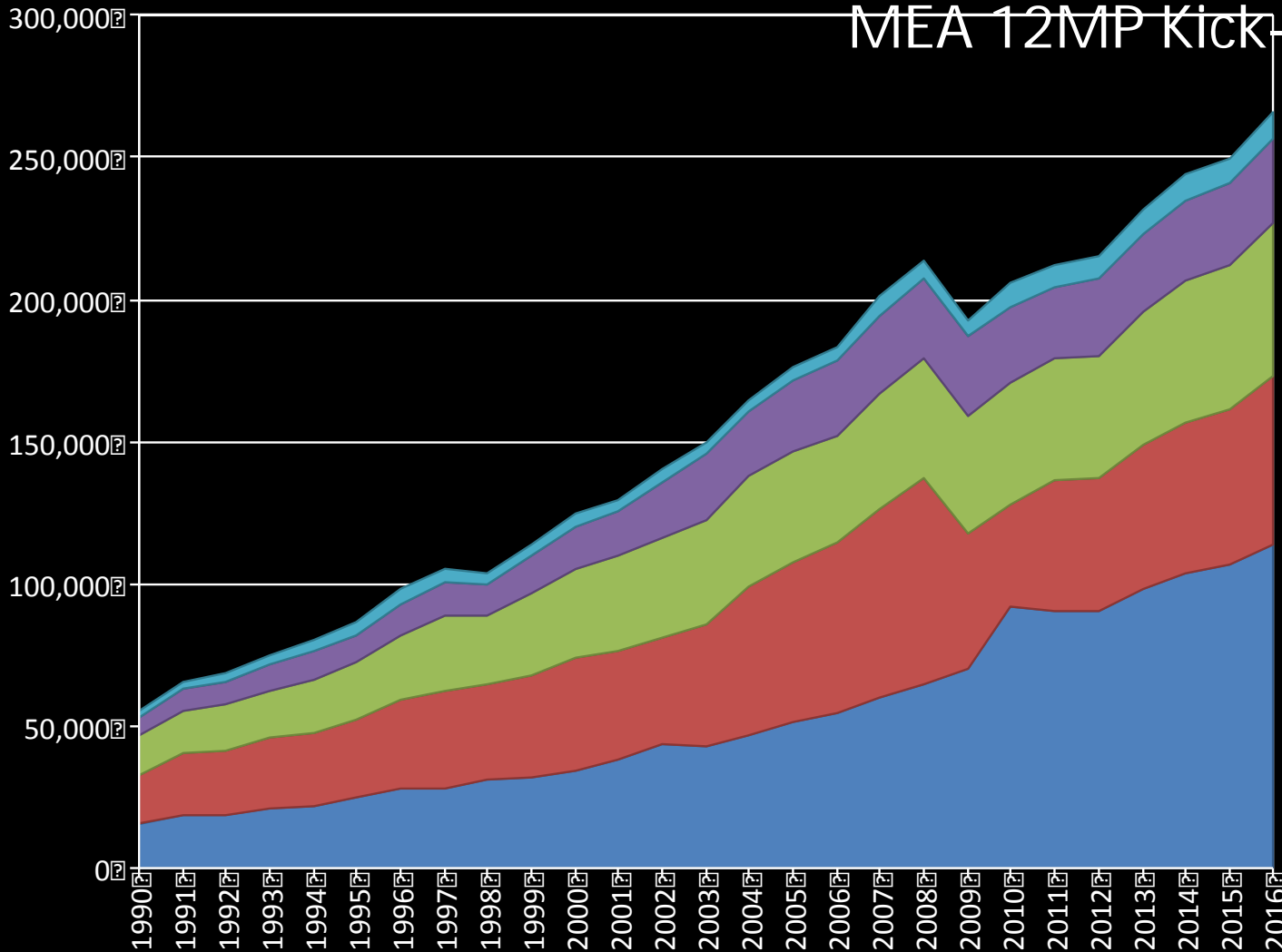
Policy Measures & Opportunities

- ❖ Encourage green technology investments and innovation
- ❖ Eliminate fossil fuel subsidies
- ❖ Get market prices right
- ❖ Regulation
- ❖ Corrective taxation
- ❖ Education and training
- ❖ High quality jobs



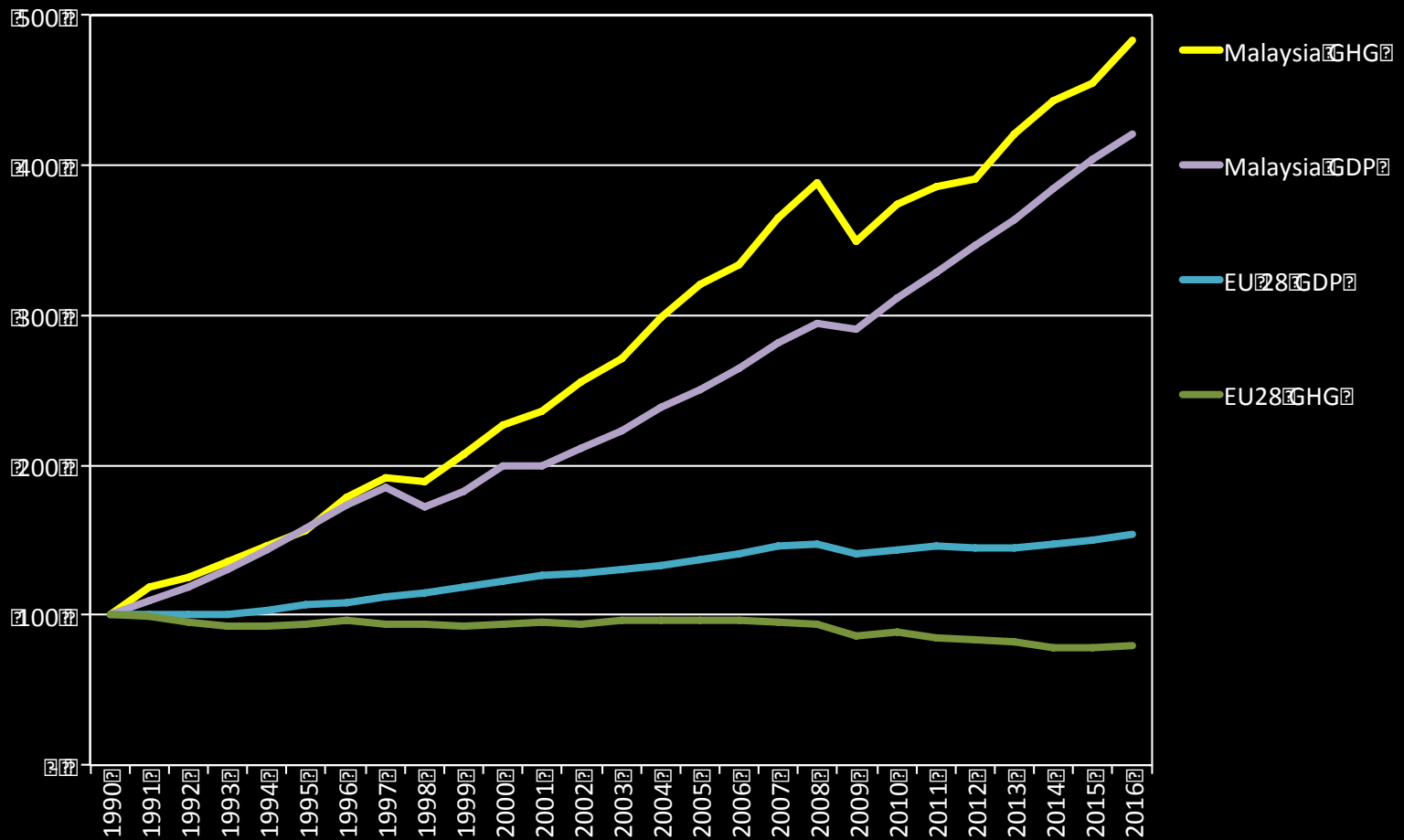
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Malaysia's CO₂ Emissions
1990-2016
[ktons/year]



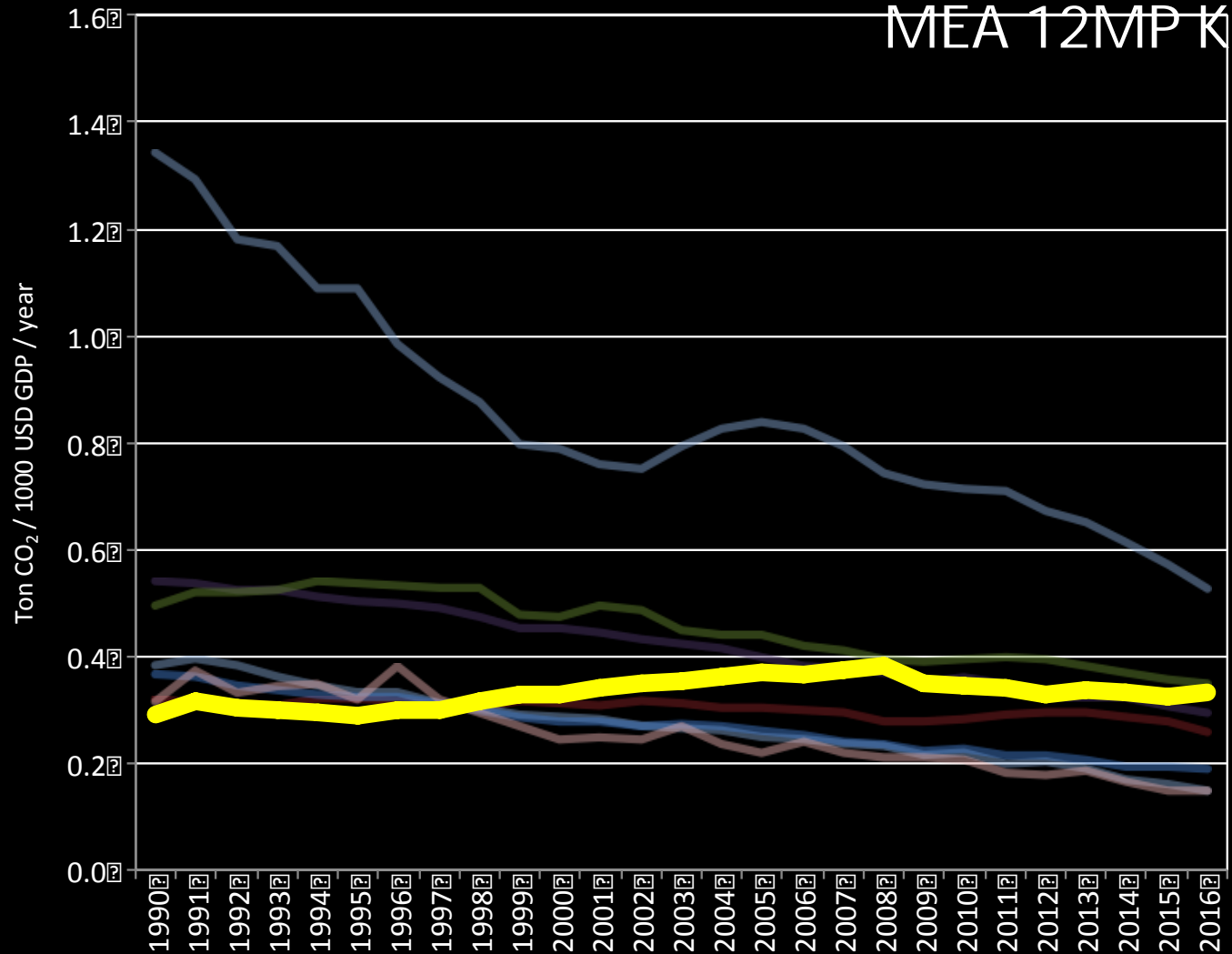
- Buildings
- Non-combustion
- Transport
- Other Industrial combustion
- Power/Industry

1990-2016: + 400%
2005-2016: + 50%



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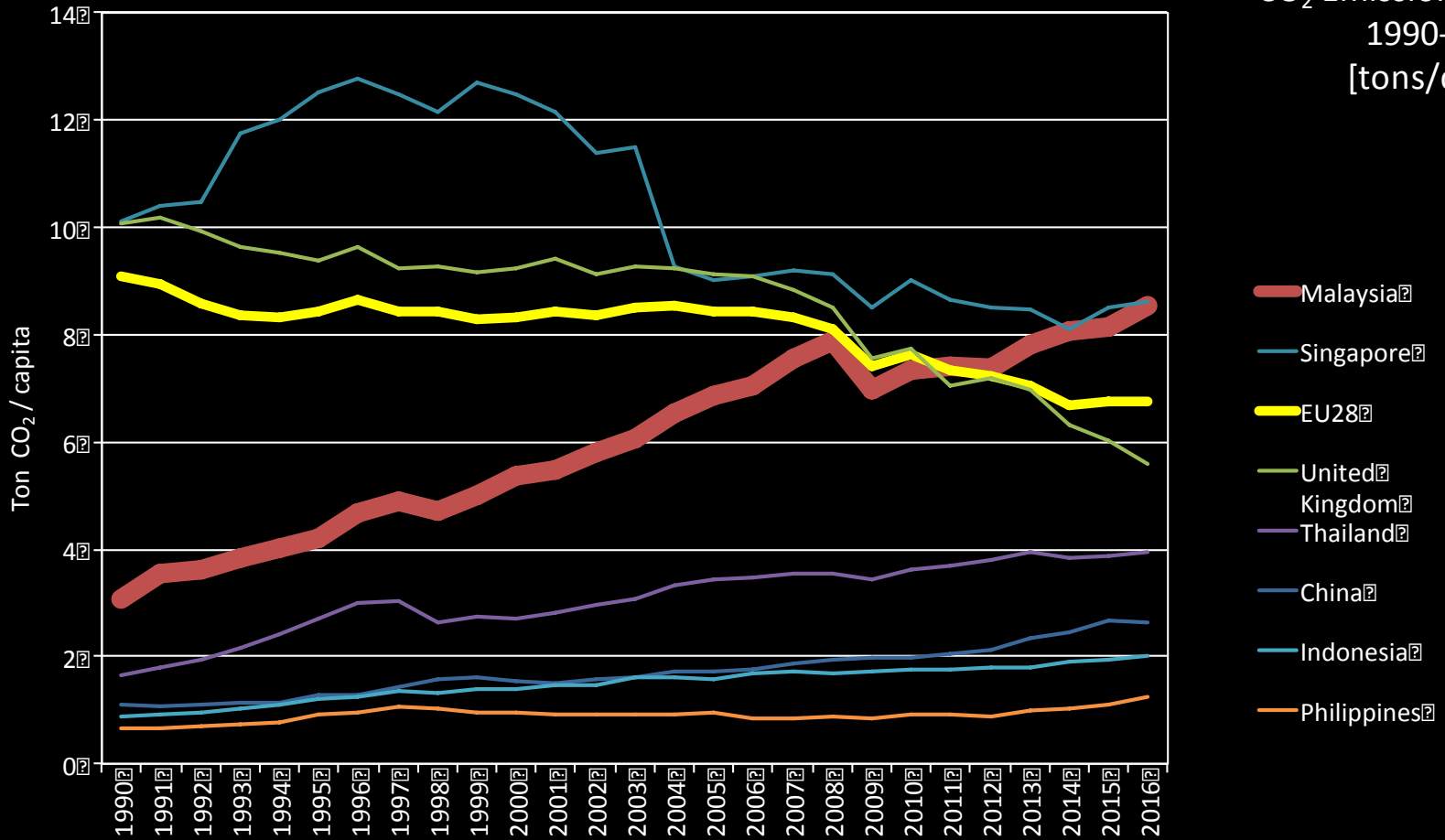
GHG Intensity
CO₂/GDP



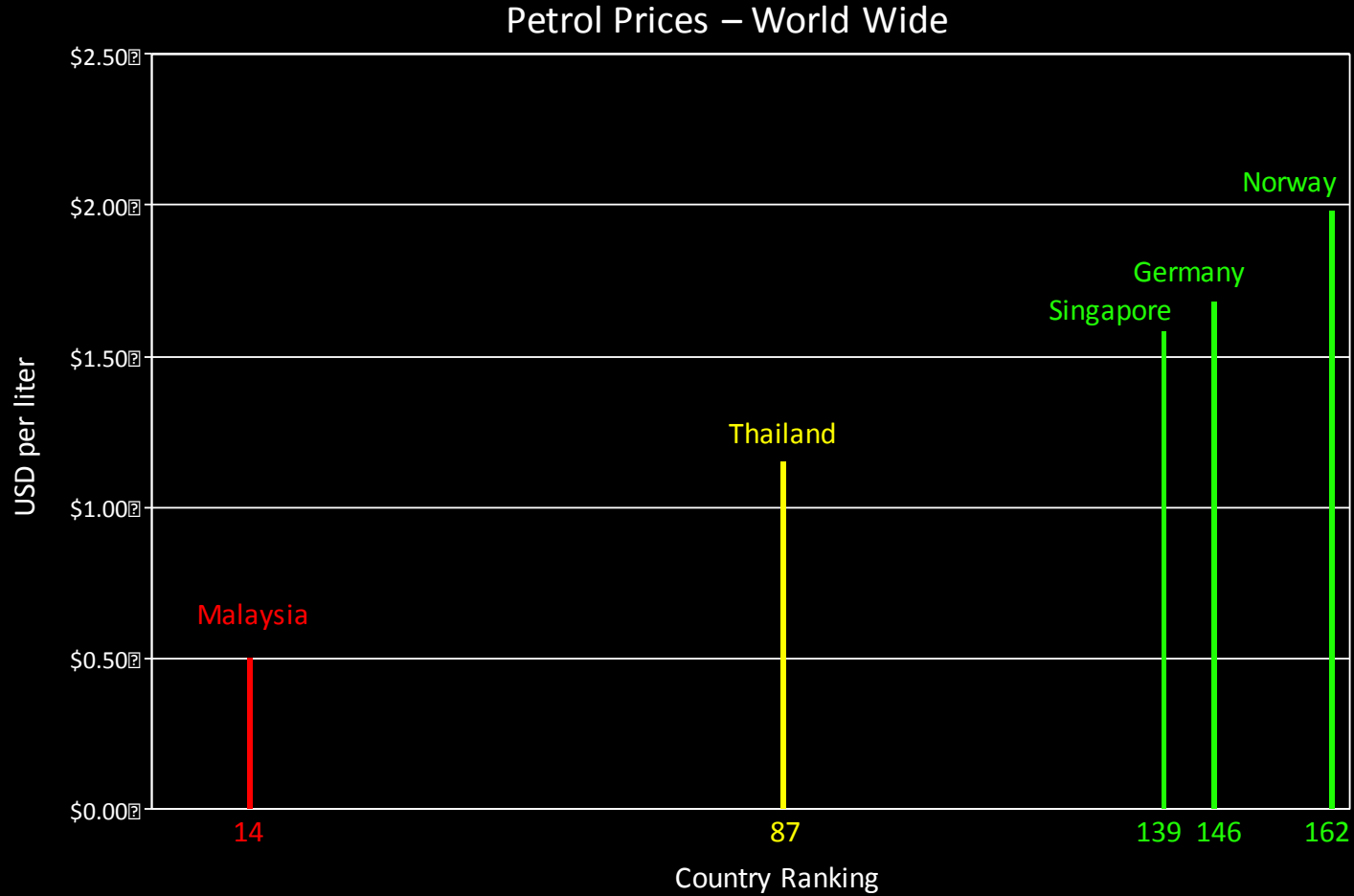
- China
- United States of America
- Japan
- United Kingdom
- EU28
- Denmark
- South Korea
- Malaysia

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CO₂ Emissions per Capita
1990-2016
[tons/capita]



Petrol Prices

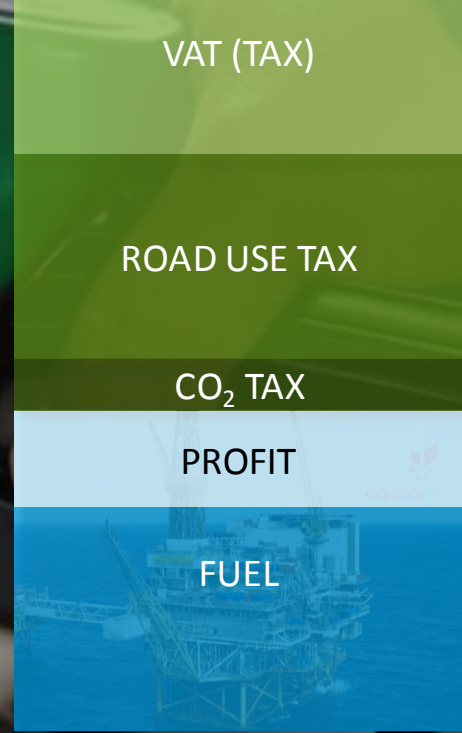
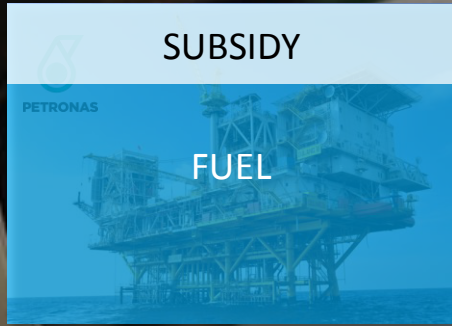


Petrol Prices

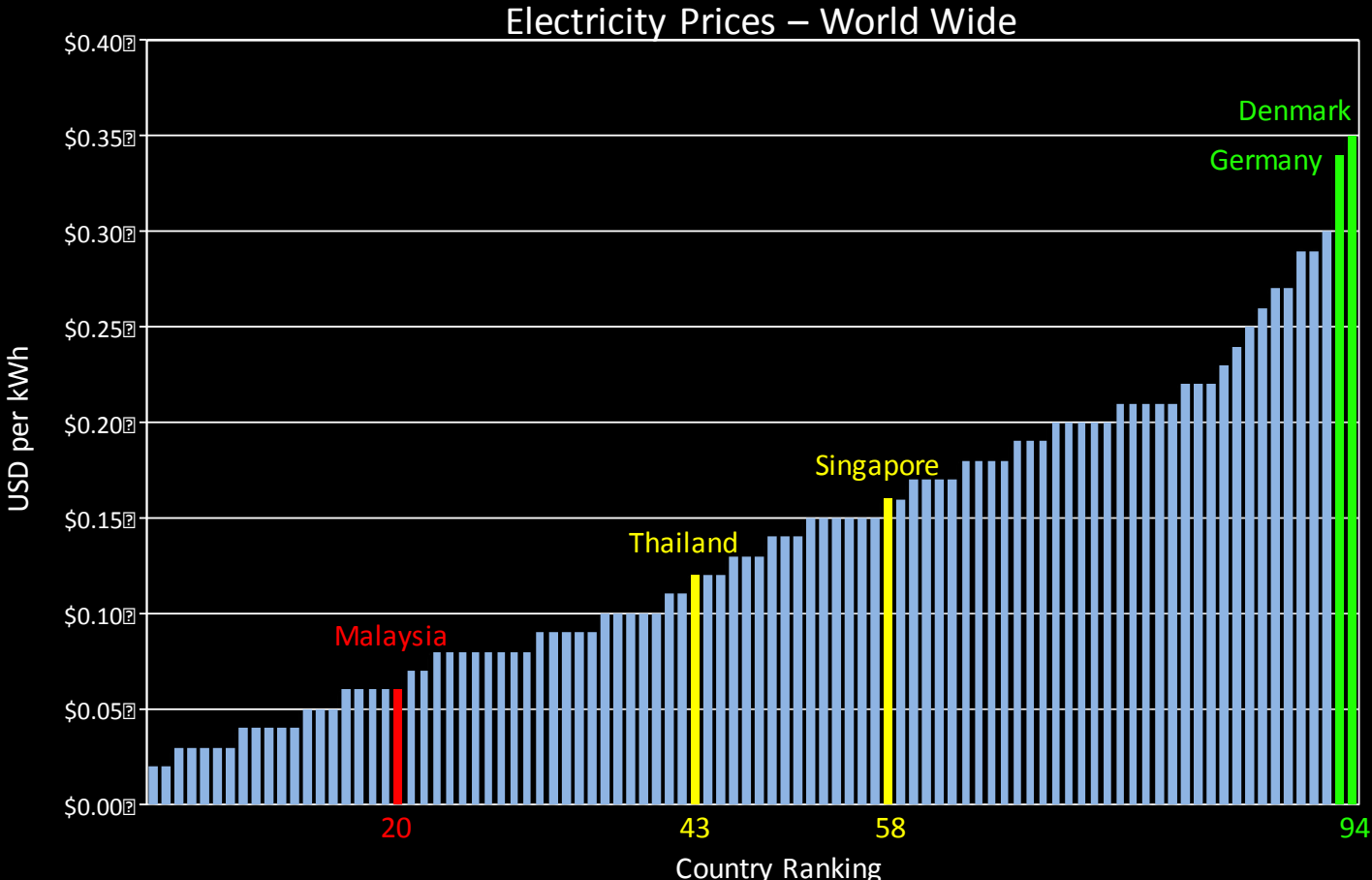
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RM 8.00 per liter

RM 2.08 per liter



Electricity Prices



Source: GlobalPetrolPrices.com

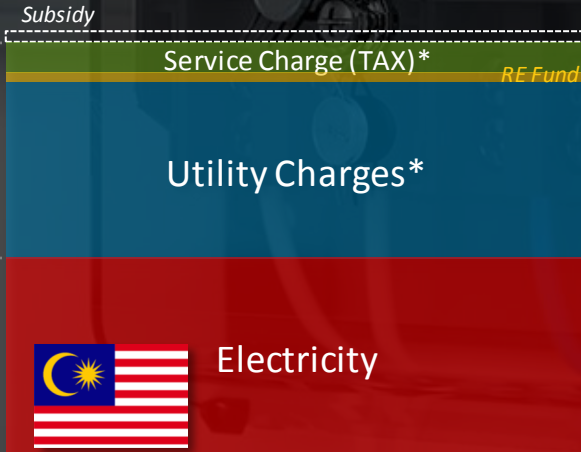
Electricity Prices

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RM 1.25 per kWh

RM 0.46 per kWh

RM 0.27 per kWh



Subsidy

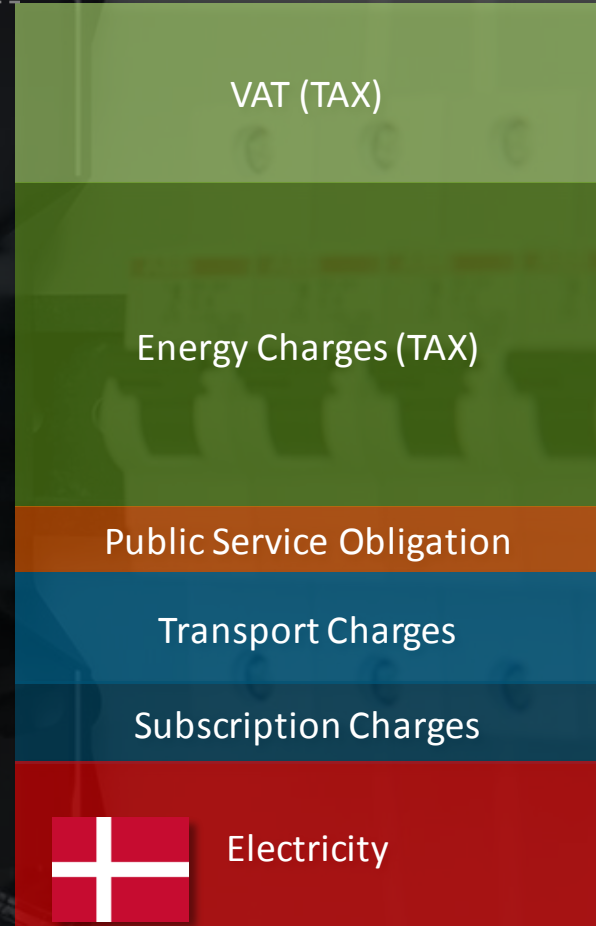
Service Charge (TAX)*

RE Fund

Utility Charges*



Electricity



VAT (TAX)

Energy Charges (TAX)

Public Service Obligation

Transport Charges

Subscription Charges

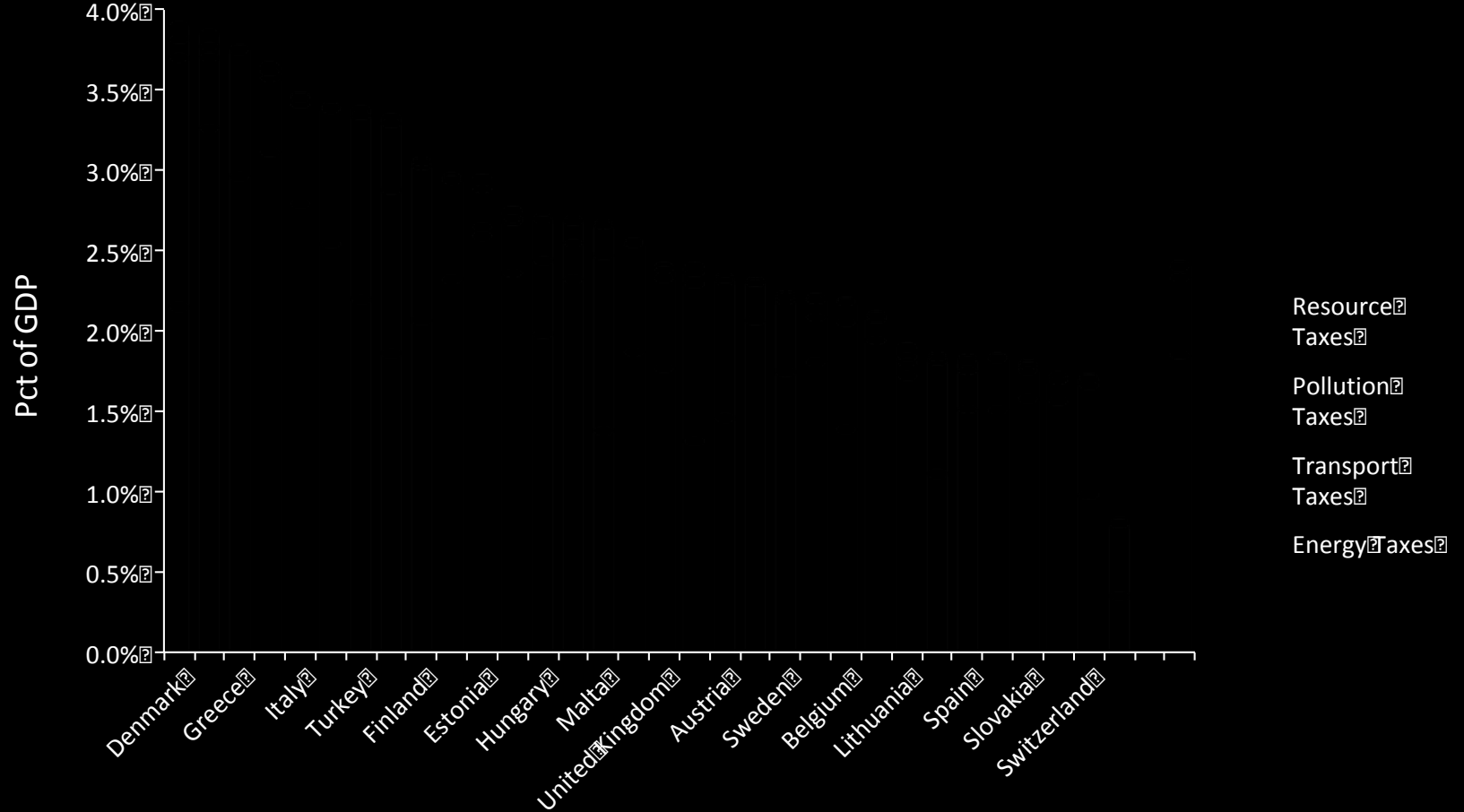


Electricity

* Based on RM 300 per month bill

Environmental Taxes

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Low Energy Prices Effect on Green Transition



Renewable Energy

- ❖ Need higher subsidies to compete with conventional energy technologies
E.g. Payback time for individual roof top PV system
2-3 times longer than in Thailand and Singapore due to low tariff



Energy Efficiency

- ❖ Higher consumption
- ❖ Longer payback time for EE technologies
- ❖ Less technologies available in the market



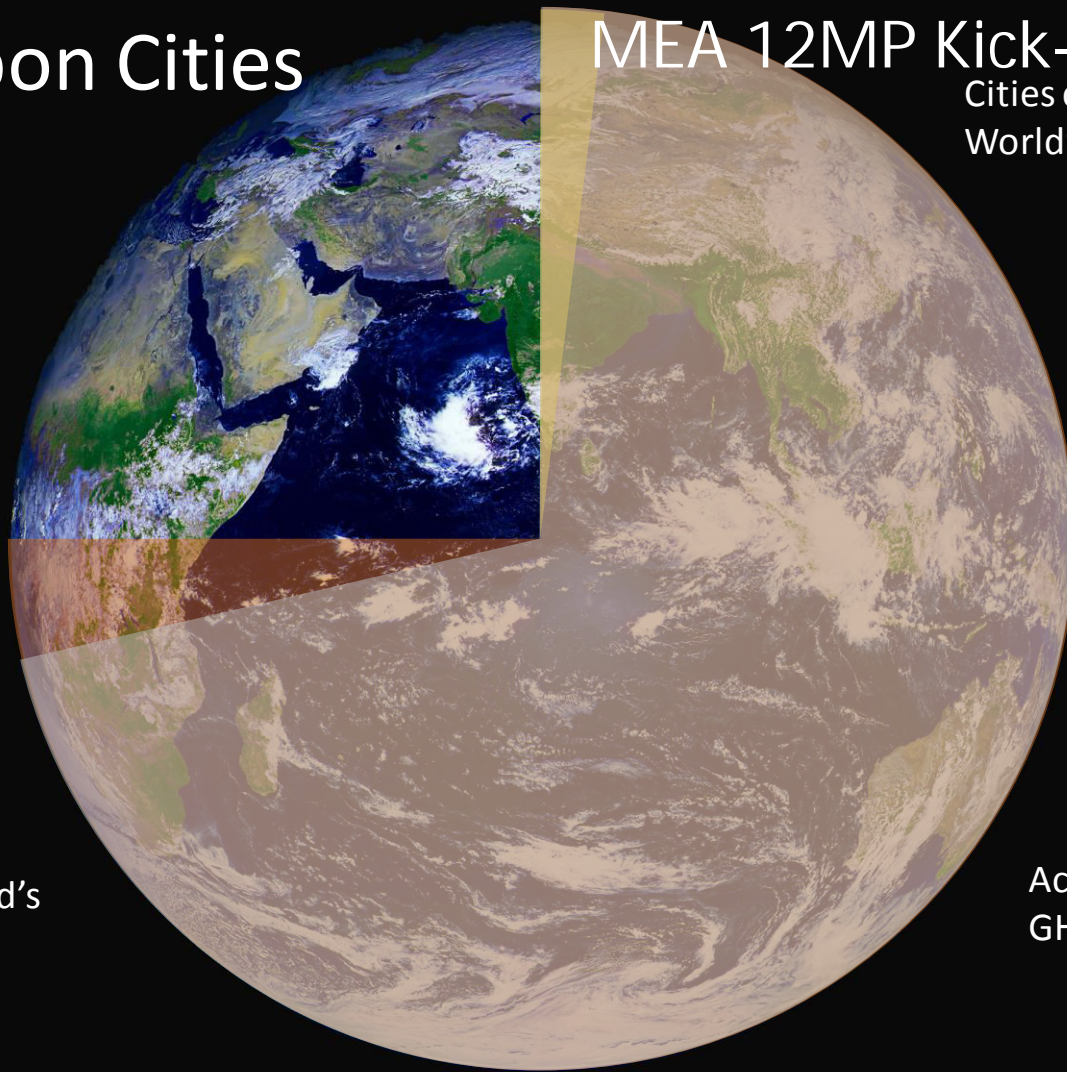
Transport

- ❖ Higher consumption
- ❖ Longer payback time for energy efficient vehicles (EEV)
- ❖ Difference between fuel and electricity price is small, making electric vehicles (EV) less attractive
- ❖ Less incentive to use public transport

Low Carbon Cities

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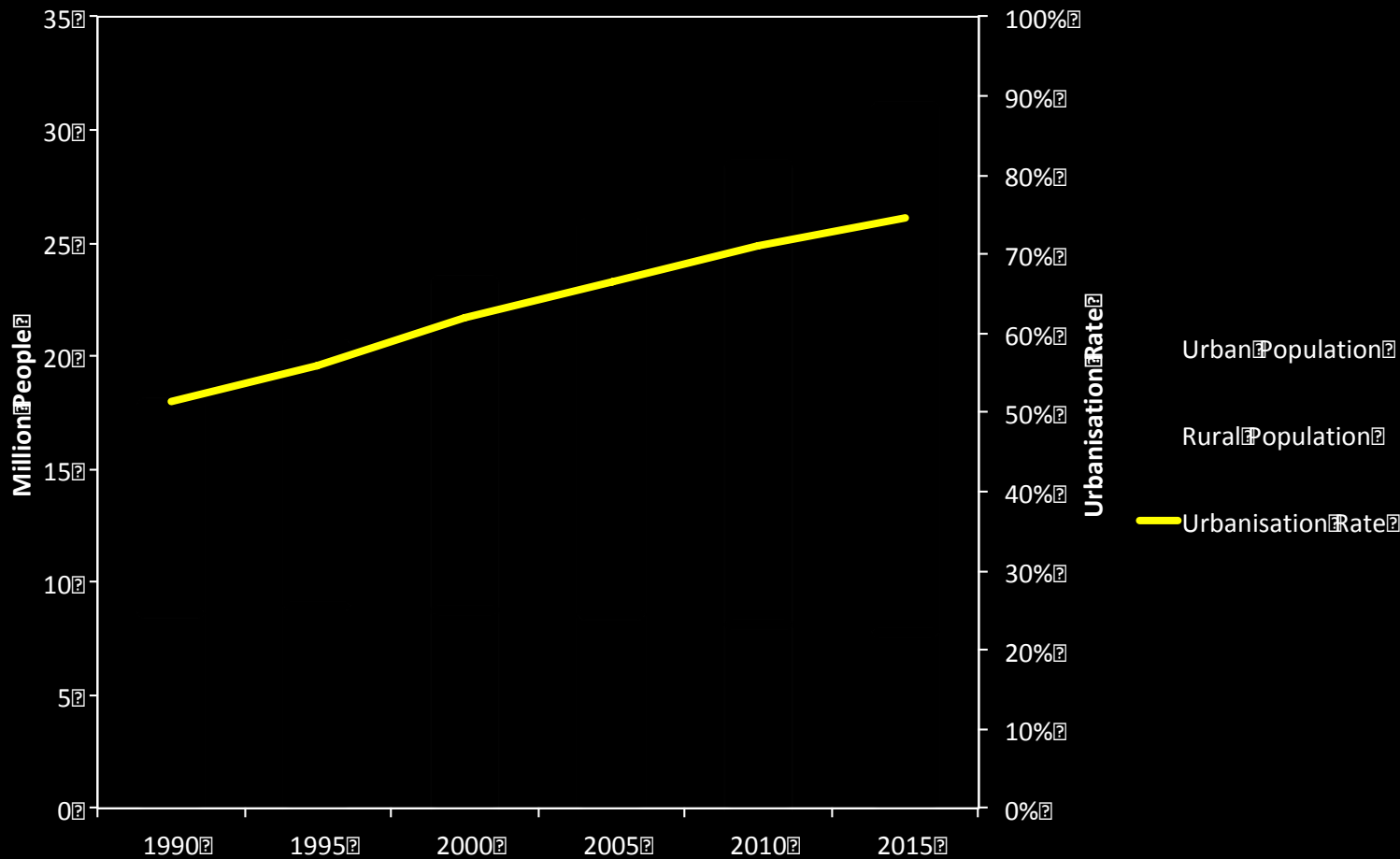
Cities cover 2% of the
World's area



Consumes
75% of the World's
primary energy

Accounts for 70% of all
GHG emissions

Urbanisation in Malaysia MEA 12MP Kick-Off Conference

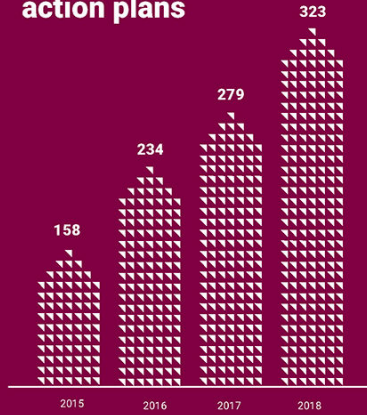


Since the signing of the Paris Agreement in 2015...

Twice as many cities report to CDP



Twice as many cities have created climate action plans



90% more cities have set emissions reduction targets



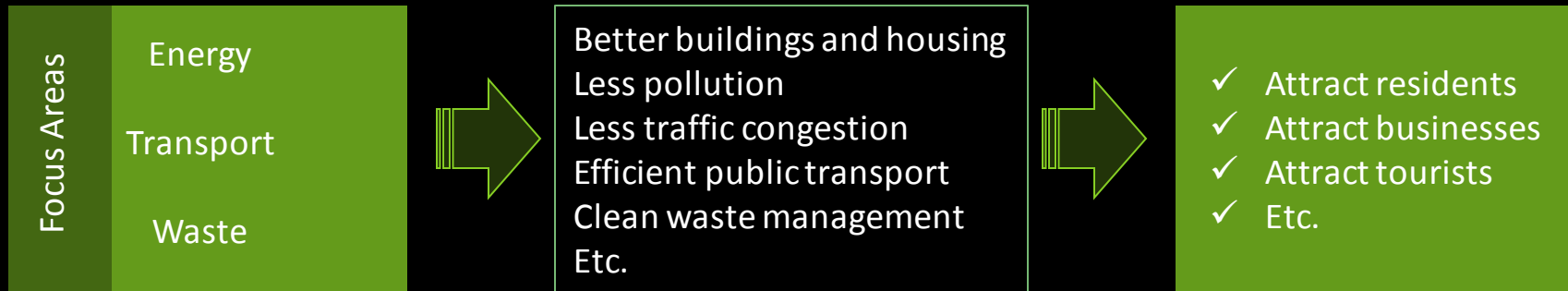
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*Copenhagen - Stockholm - Helsinki - Berlin Washington
D.C. - San Francisco - Seattle - New York
Sydney - Adelaide - Melbourne - San Francisco
among others...*

27 Cities with 100% GHG reduction targets



Cities Benefit from the Green Transition





Bio fuel and biogas for public buses



Global transition to Green Economy

- ❖ countries
- ❖ cities
- ❖ companies

Fossil Fuel Subsidies hampers the transition

- ❖ more subsidies needed for green technologies
- ❖ Less focus on efficiency and conservation

Cities can play an active role

- ❖ uptake of national initiative and measures
- ❖ localized solutions

Carbon neutrality by mid-century

- ❖ required to meet Paris goal of max. 1.5°C temperature rise
- ❖ GHG peak should be reached soon, so net emissions starts to reduce

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THANK YOU

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