

# ASIA AND THE PACIFIC TRANSPORT FORUM 2024

## CLEAN TRANSPORT FOR ALL

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# Climate Ambitions, Net Zero Pathways, and the Role of Trade and Trade Policies

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Hello!

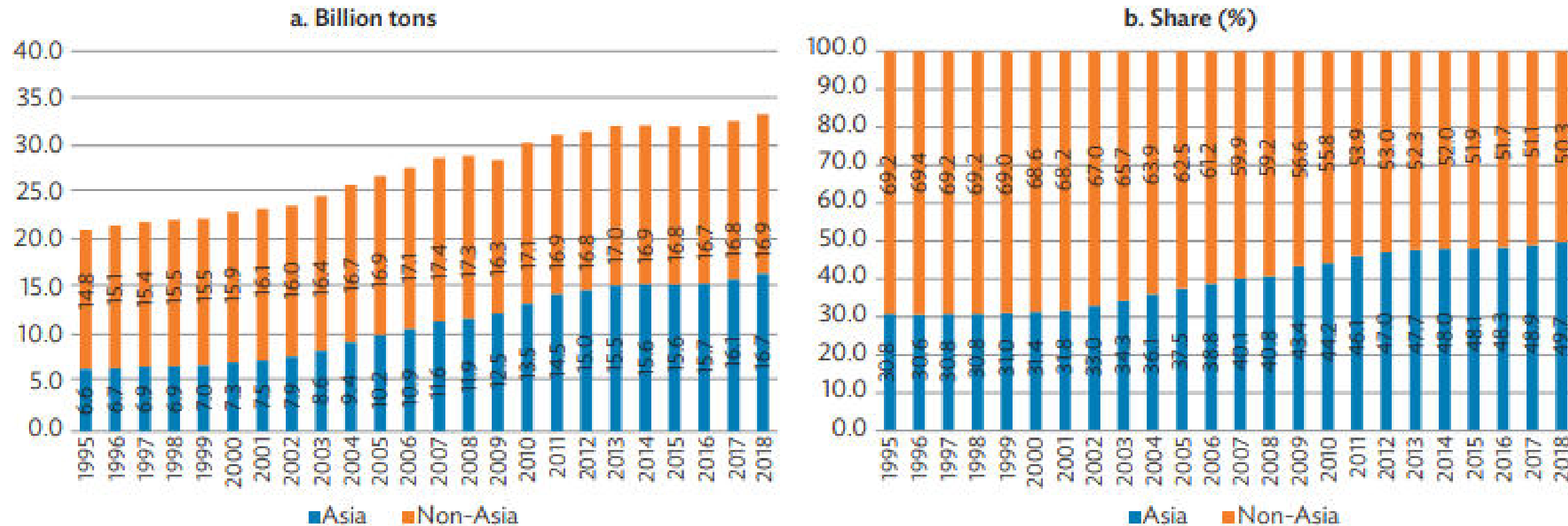
# I am Cyn-Young Park

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# Current Scenario

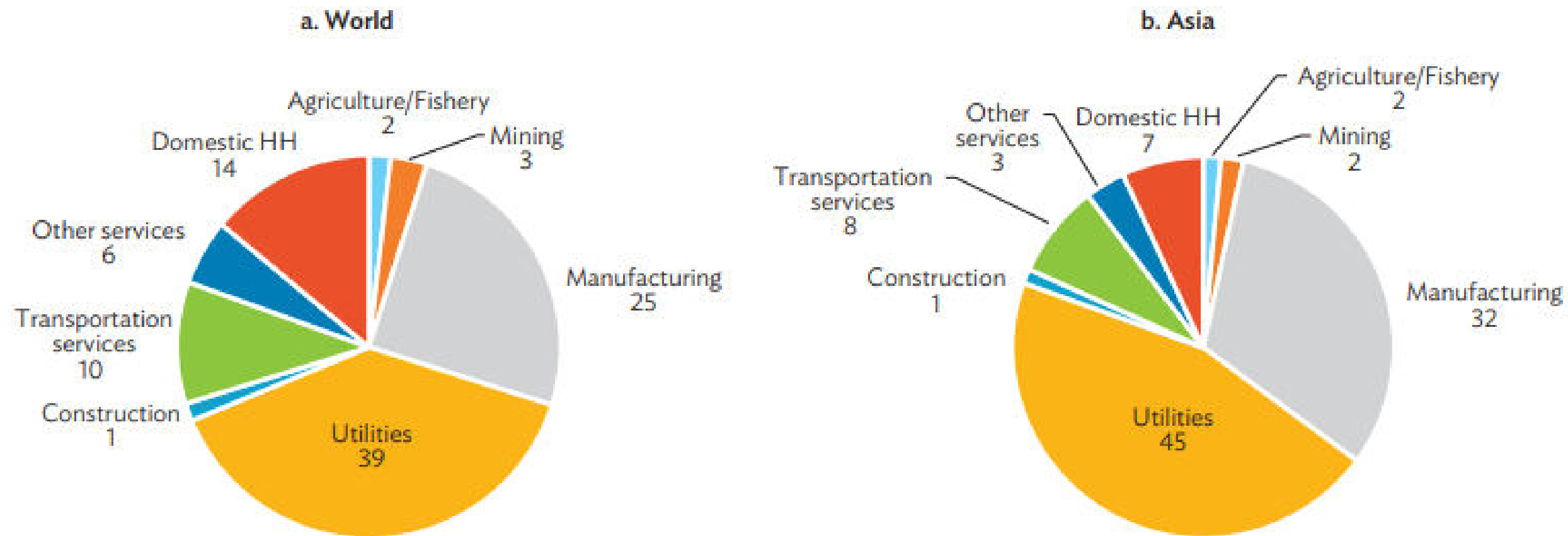
Figure 1: Asia's Production-Based Carbon Dioxide Emissions



Source: OECD TeCO<sub>2</sub> database.

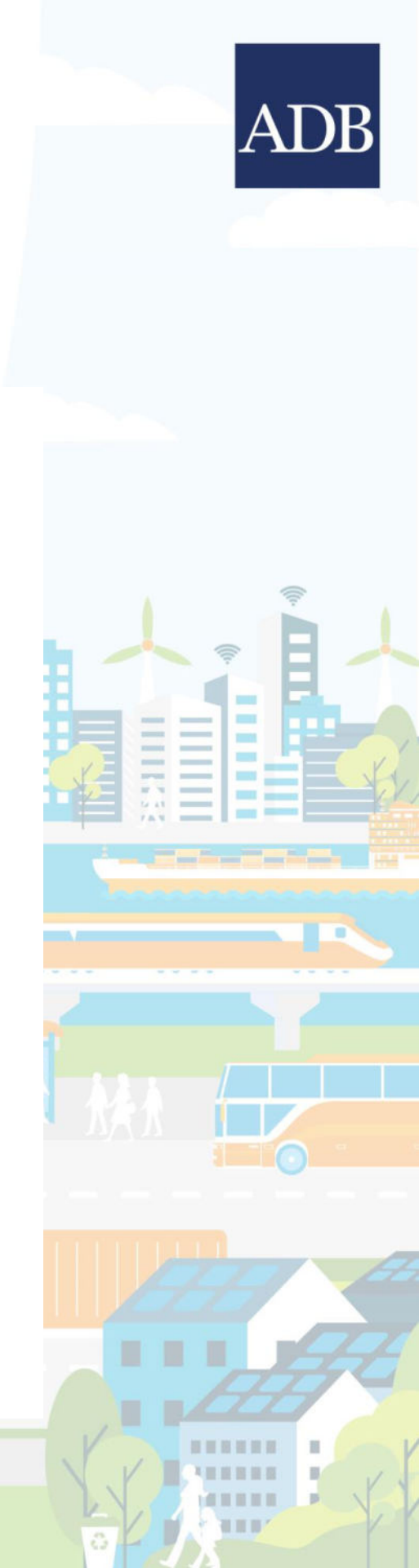
# Current Scenario

Figure 2: Production-Based Carbon Dioxide Emissions by Industry, 2018  
(%, share)



CO<sub>2</sub> = carbon dioxide, HH = household.

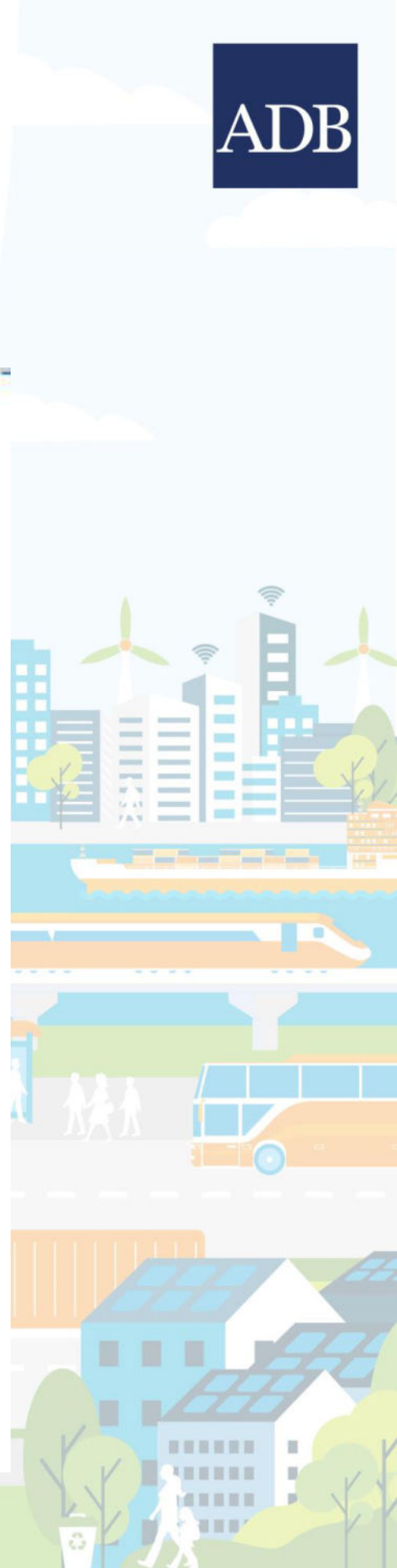
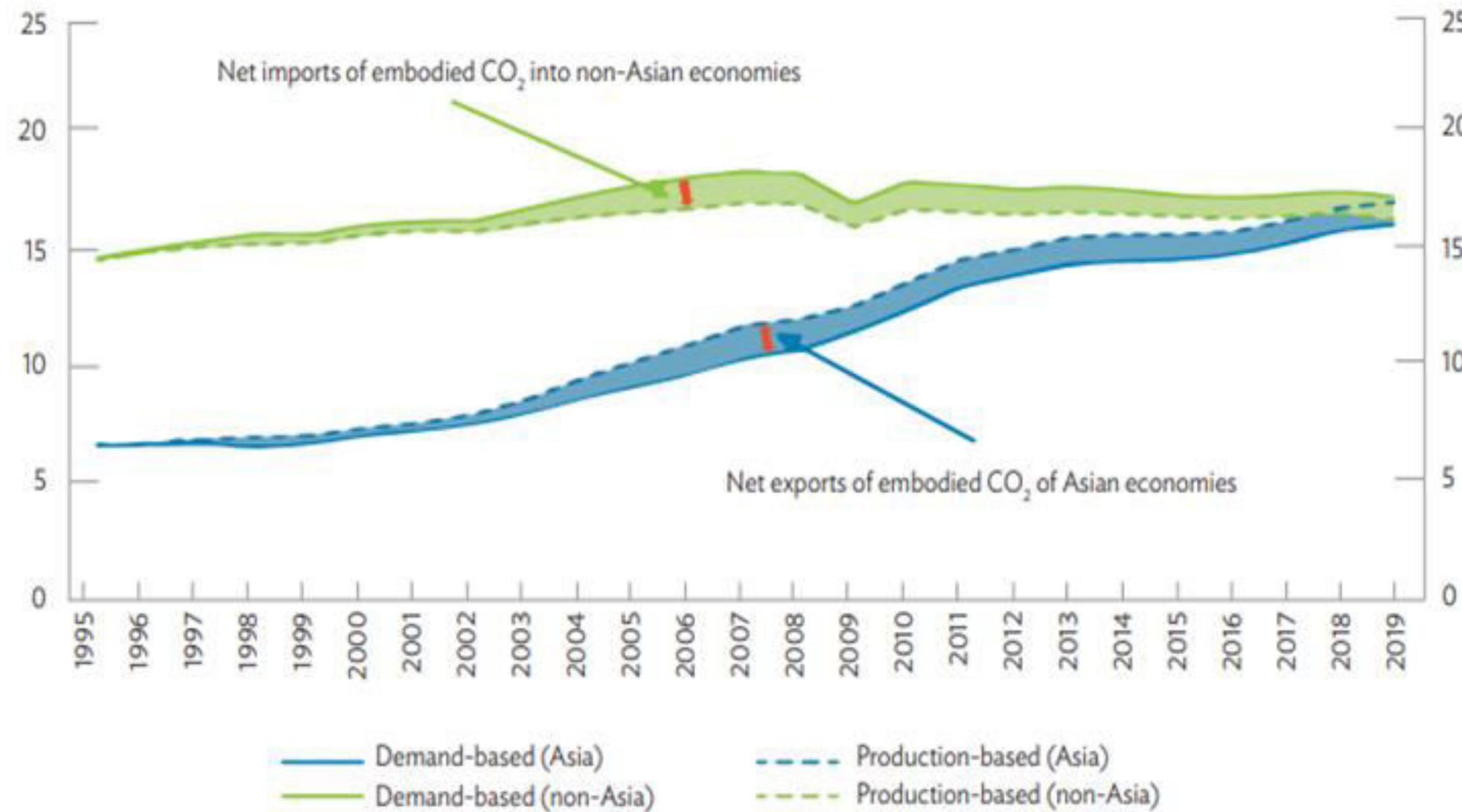
Source: OECD TeCO<sub>2</sub> database.



# Asia is a net exporter of carbon emissions

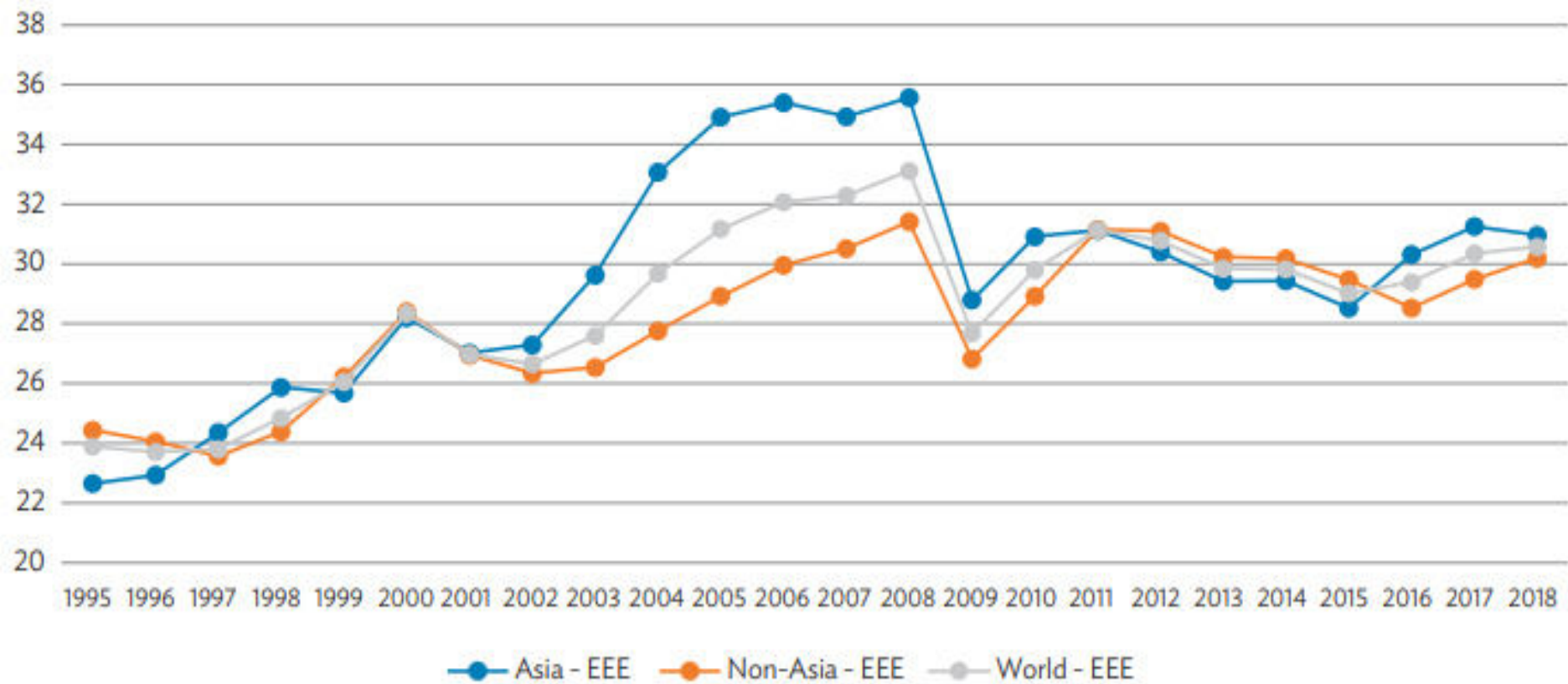
ADB (2023a) finds that since 2011 the ratio of carbon emissions per production unit, called carbon intensity, is decreasing, likely through technology enhancement, environmental regulation, and deepening environmental consciousness.

Figure 4: Production- and Demand-Based Carbon Emissions—Asia versus Non-Asia (giga tons CO<sub>2</sub>)



# Mapping out Trade and Climate Change

Figure 5: Asia's CO<sub>2</sub> Emissions Embodied in Exports  
(% production-based)



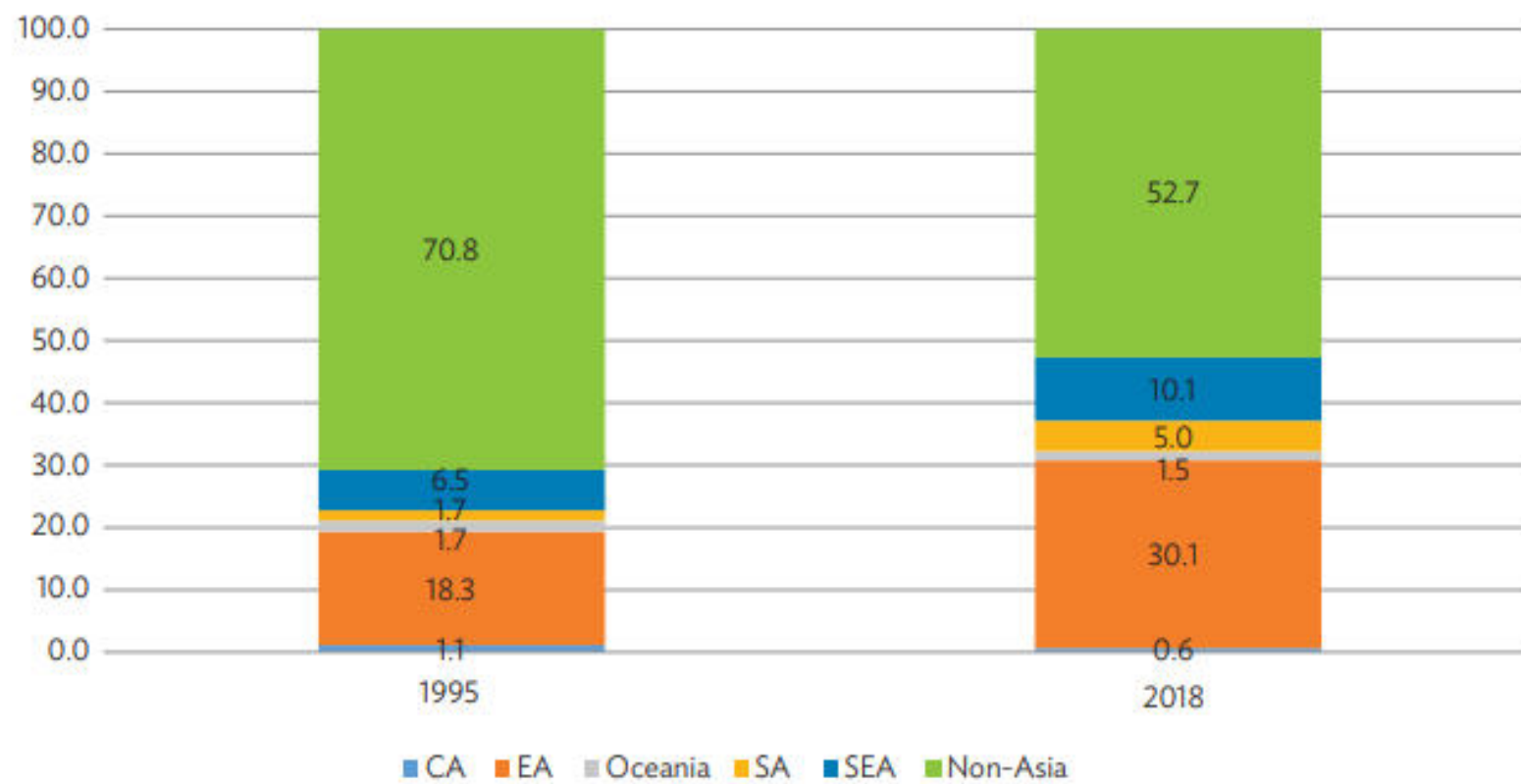
CO<sub>2</sub> = carbon dioxide, EEE = emissions embodied in exports.

Source: OECD TeCO<sub>2</sub> database.



# Mapping out Trade and Climate Change

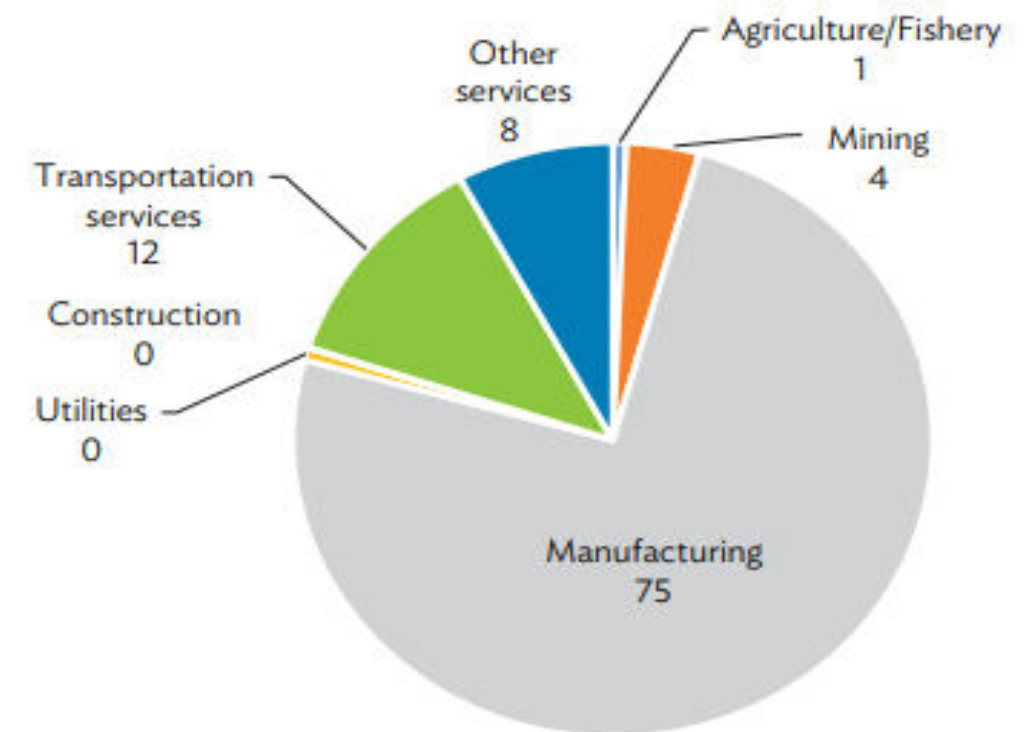
Figure 6: Asia CO<sub>2</sub> Emissions Embodied in Exports by Subregion (% global share)



CO<sub>2</sub> = carbon dioxide, CA = Central Asia, EA = East Asia, SA = South Asia, SEA = Southeast Asia.

Source: OECD TeCO<sub>2</sub> database.

Figure 7: Asia Emissions Embodied in Exports by Industry (% global share)

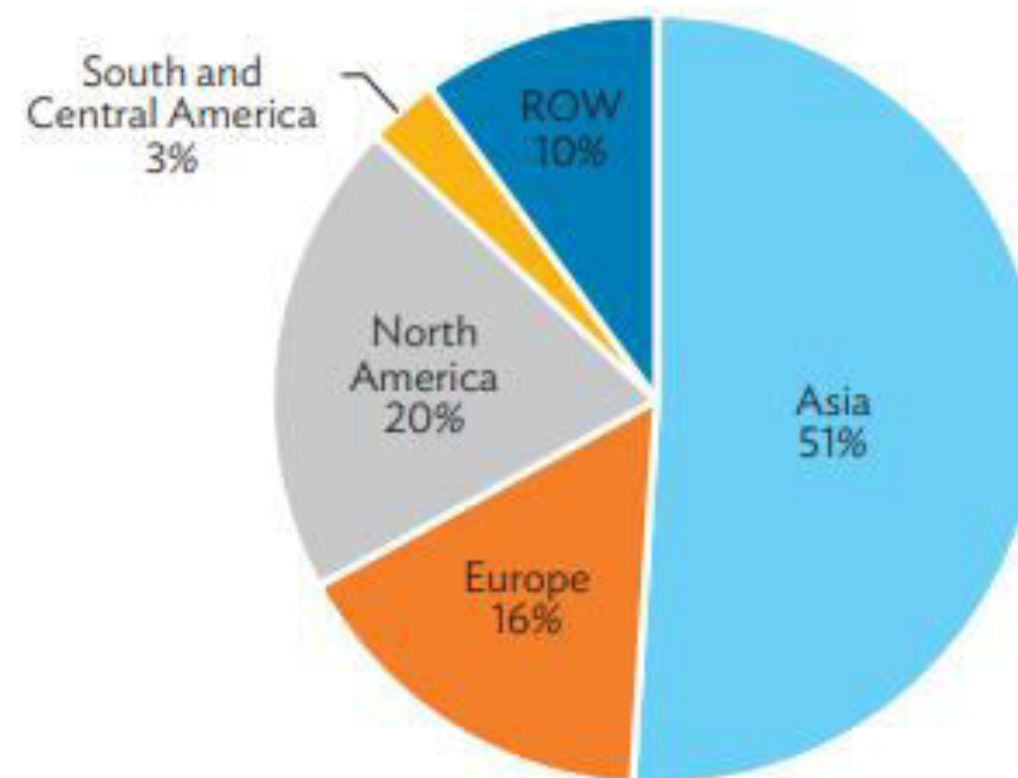
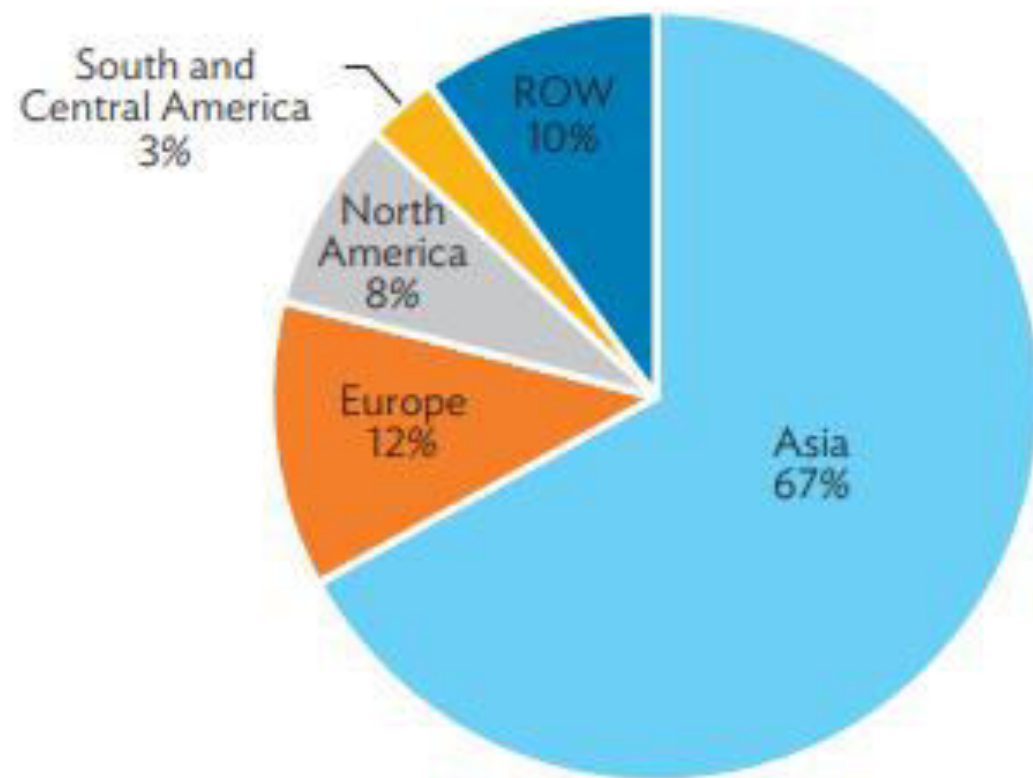


Source: OECD TeCO<sub>2</sub> database.



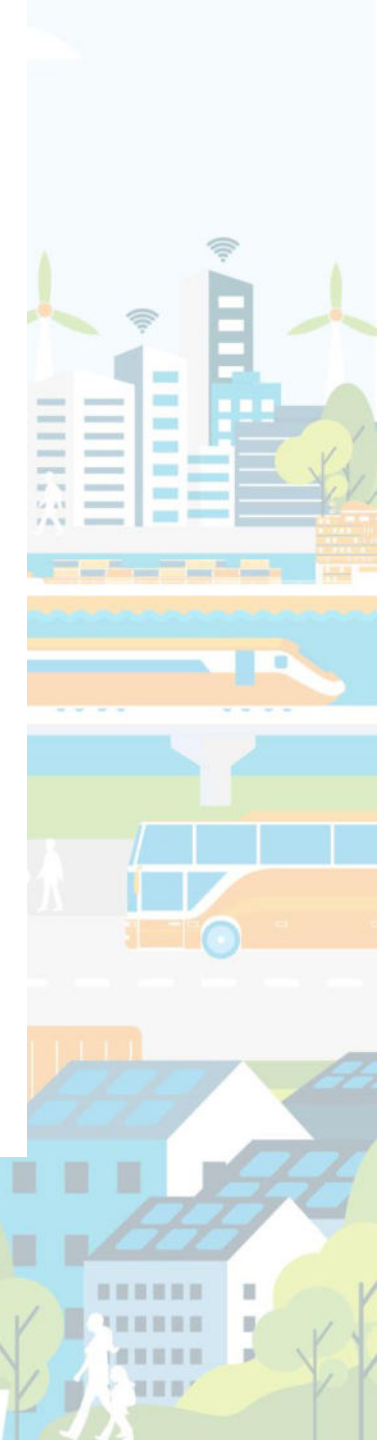
# Mapping out Trade and Climate Change

Figure 8: Asia's CO<sub>2</sub> Emissions Embodied in Imports by Origin (left), Exports by Destination (right)



CO<sub>2</sub> = carbon dioxide ROW = rest of the world.

Source: OECD TeCO<sub>2</sub> database.



# Carbon Balance and Carbon Leakage

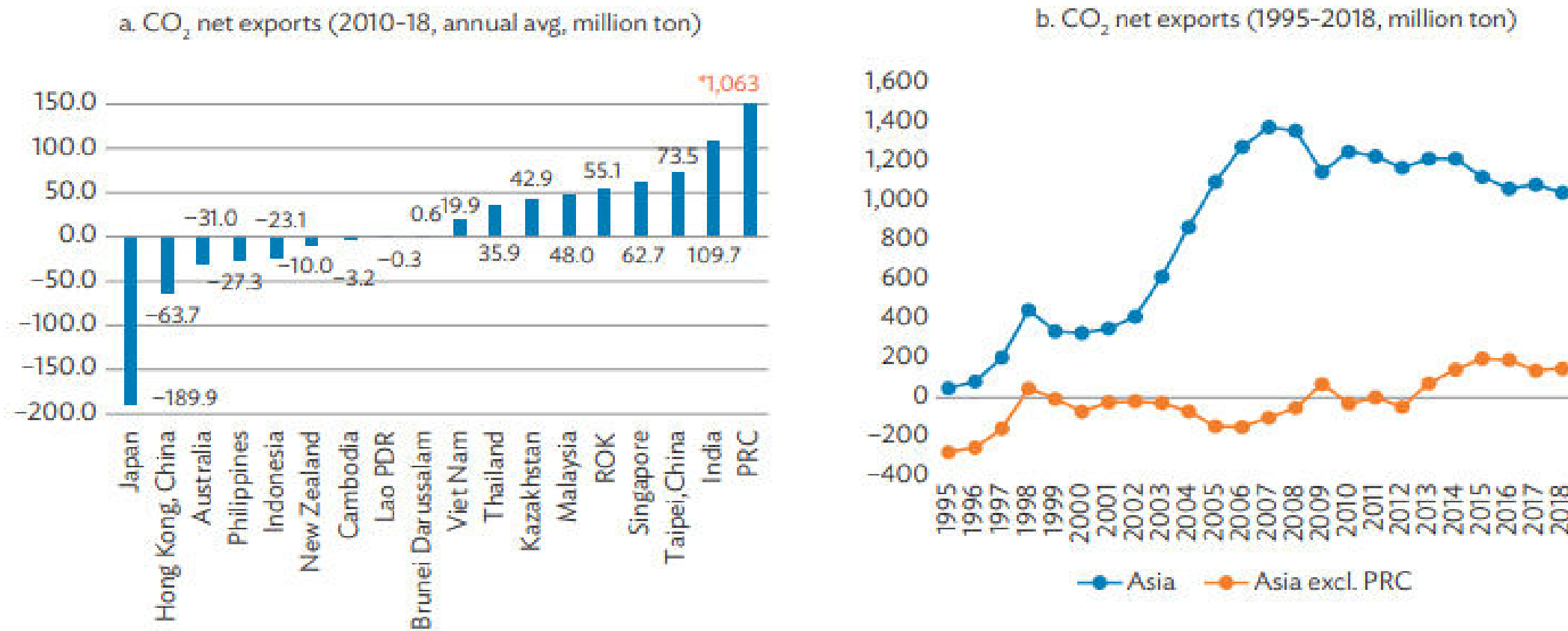
The “**industrial structure effect**” suggests that the carbon intensity of the exports of some economies will be greater than others even when conditions are fair.

This effect has been called “**weak carbon leakage**” and has been described by Peters and Hertwich (2007) as production in developing countries to meet consumption in the developed countries.



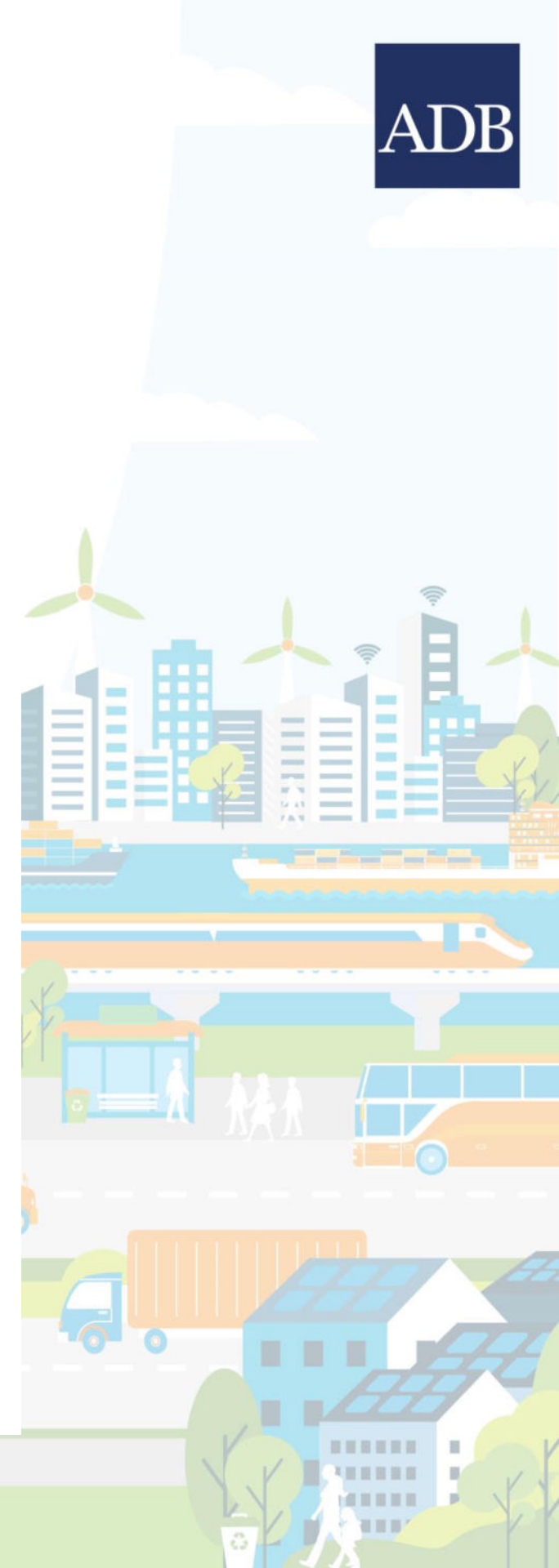
# Carbon Balance and Carbon Leakage

Figure 9: Carbon Balance  
(CO<sub>2</sub> emissions, production versus final demand)



CO<sub>2</sub> = carbon dioxide, PRC = People's Republic of China, Lao PDR = Lao People's Democratic Republic, ROK = Republic of Korea.

Source: OECD TeCO<sub>2</sub> database.



# Carbon Tax: Case Study of the EU Carbon Border Adjustment Mechanism

- Levy on carbon-intensive products in six sectors that are imported into the EU (iron and steel, cement, fertilizers, aluminum, electricity, and hydrogen)
- Important landmark to prevent carbon leakage by putting an established fee on carbon emissions generated during production of identified goods that are imported into the EU market
- Entered into force on 16 May 2023.

# Policy Tools for the Future

- 1 Mainstream trade and trade policy into NDCs
- 2 Reduce tariffs and trade restrictions on environmental goods and services
- 3 Promote transfer of technology
- 4 Accelerate trade facilitation and logistics reforms
- 5 Develop national carbon-pricing strategies and strengthen regional carbon market cooperation
- 6 Strengthen international cooperation

THANK YOU!

