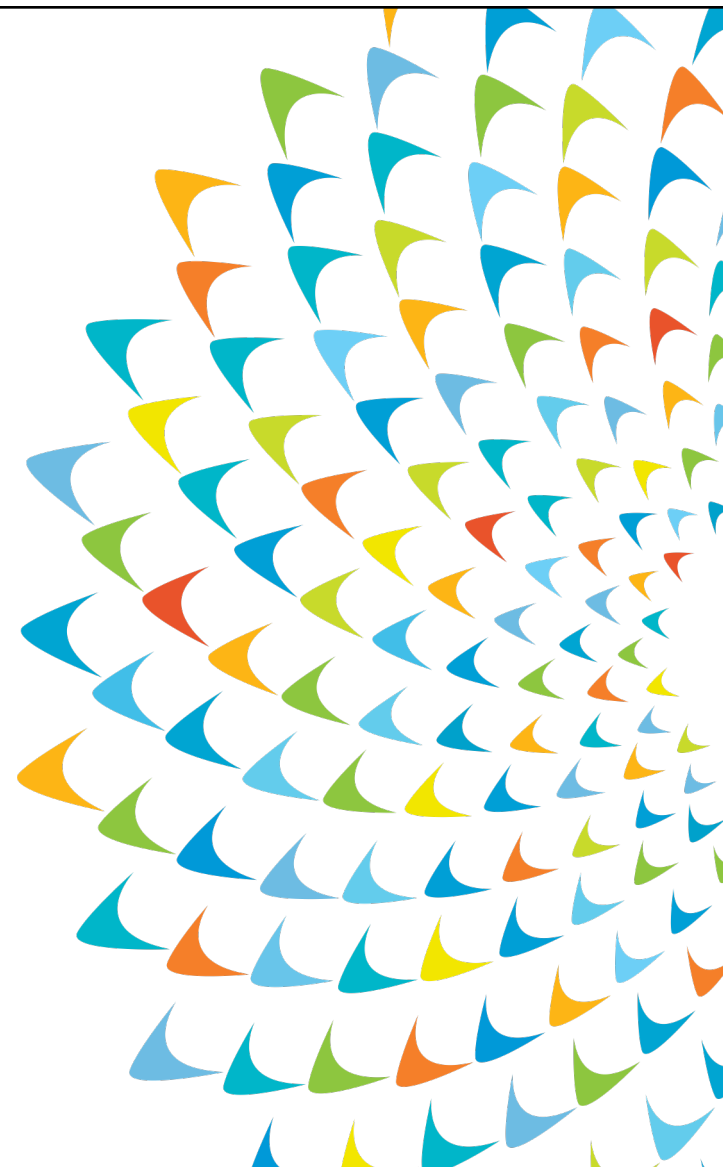


# Financing Greener Value Chains in the CAREC Region

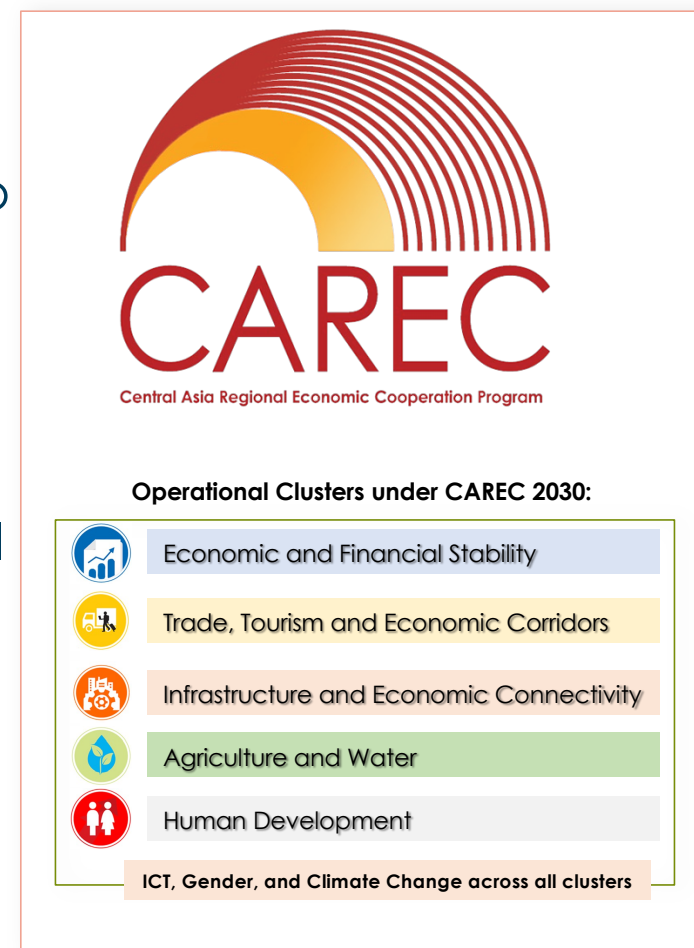
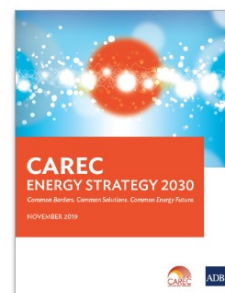
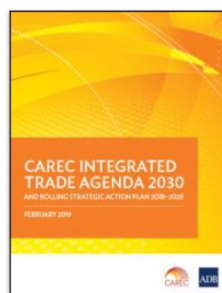
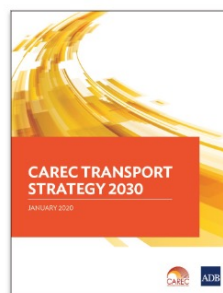
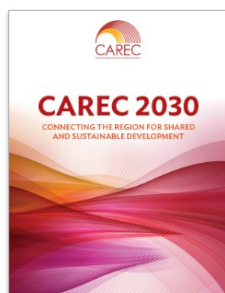
Central and West Asia Department  
Asian Development Bank

CAREC Session, ADB's Annual Meeting 2024  
2 May 2024



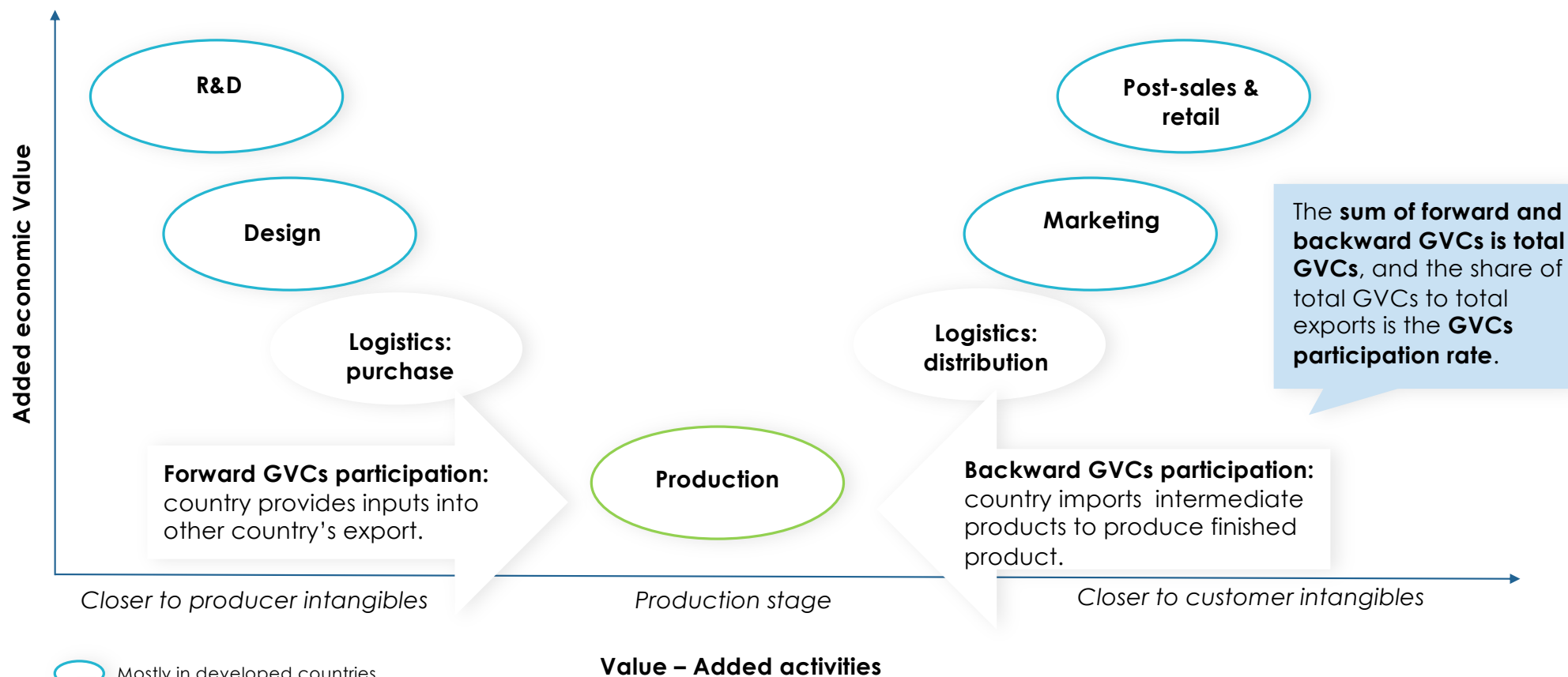
## What is CAREC?

- **The Central Asia Regional Economic Cooperation Program (CAREC)** is a partnership of 11 countries and development partners working together to promote development through regional cooperation, leading to accelerated growth and shared prosperity.
- **CAREC 2030** strategy supports five operational clusters and three cross-cutting themes.



Source: [carecprogram.org](http://carecprogram.org)

# What are Global Value Chains (GVCs) and why are they important?



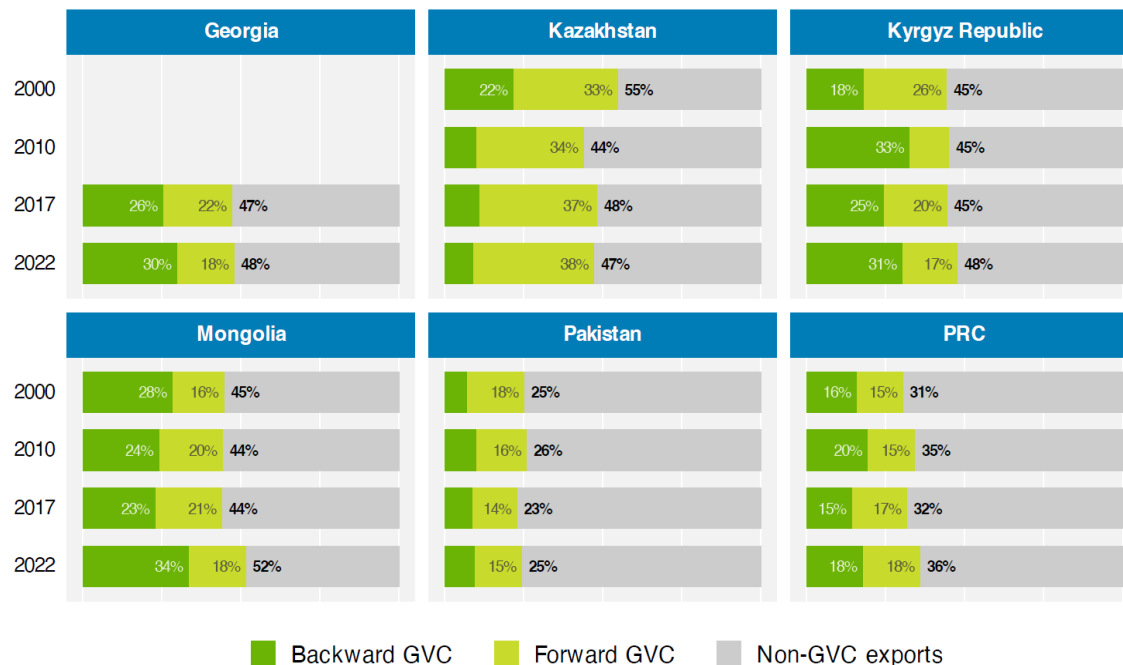
Source: ADB 2021. Global Value Chain Development Report 2021. Fernandez-Stark, Gereffi (2011). "Where are the high-value added activities in GVCs?"



# How well CAREC countries are integrated in the GVCs?

- **CAREC** is among the **least integrated** subregional cooperation initiatives in Asia and the Pacific.
- Among CAREC countries, **MON, GEO, and KGZ** have higher participation rate in GVC.
- **KAZ** has more forward GVC linkages.
- **PAK** exports (mainly textiles) less involved in GVCs, as they use little imported inputs.
- The **PRC** has the most balanced GVCs participation.

**Global value chain participation rate\*, 2000, 2010, 2017, 2022**



- Note: (i) The sum of forward and backward GVCs is total GVCs, and the share of total GVCs to total exports is the GVC participation rate. (ii) Forward GVCs involve reexporting by the partner economy. Backward GVCs involve foreign inputs by the exporting economy. Non-GVC exports are all exports where value added cross only one border.
- Note: the ADB MRIO table has information on 6 of the 11 CAREC economies only.

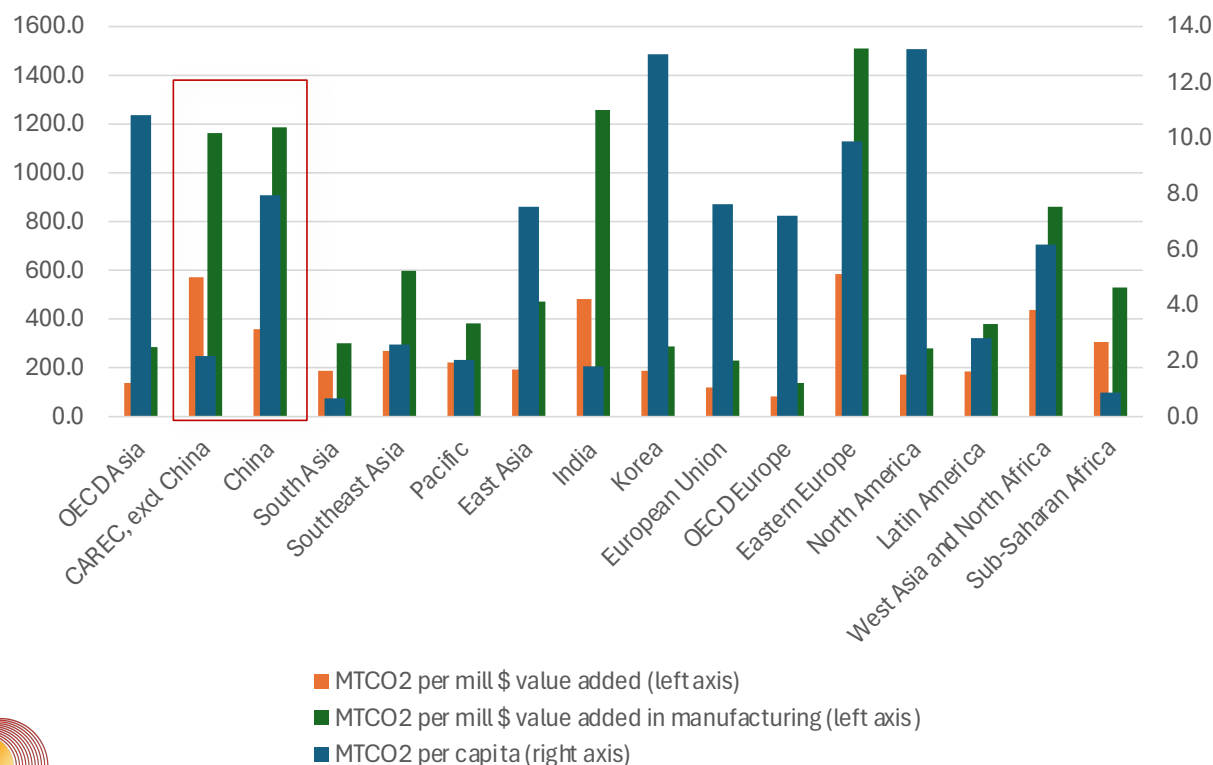


CAREC = Central Asia Regional Economic Cooperation; GVC = global value chain  
 Notes: Gross exports are decomposed in forward GVC, backward GVC, and non-GVC components using the methodology in Asian Development Bank (2021).  
 Sources: Asian Development Bank. 2021. Key Indicators for Asia and the Pacific 2021. Manila, Philippines: Asian Development Bank; Asian Development Bank. Multiregional Input-Output Database (July 2023).  
<https://kiddb.adb.org/mrio> (accessed 1 September 2023); Asian Development Bank estimates.



# Why to decarbonize supply chains in CAREC member countries?

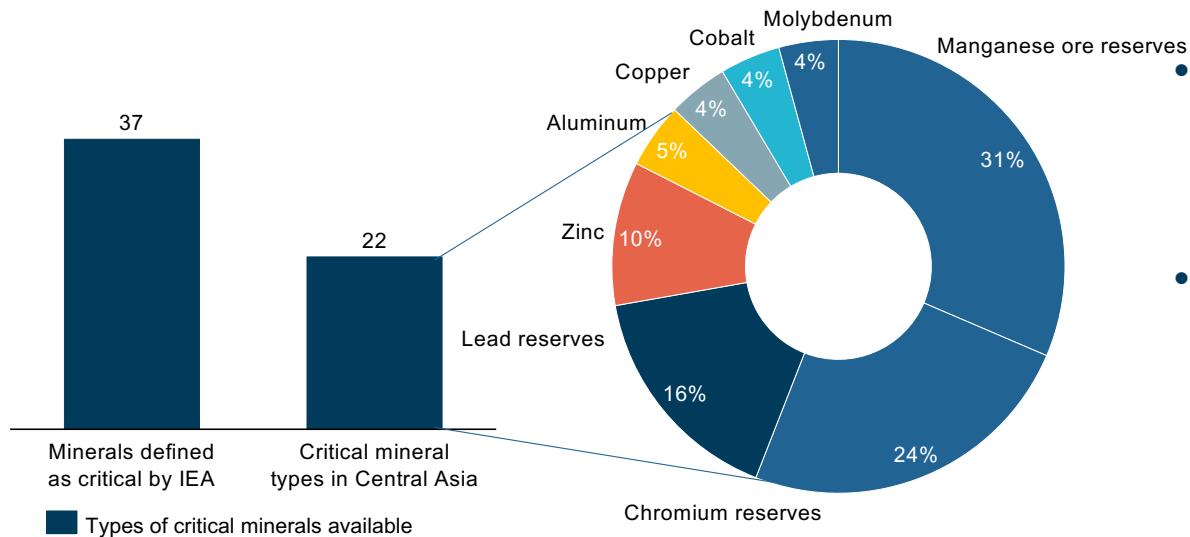
CO2 intensity across economies



- CAREC has one of the highest shares of CO<sub>2</sub> emissions in the world in value-added manufacturing.
- Globally, trade facilitated by GVCs dominates in more emission-intensive sectors.
- Among CAREC, **MON** and **KAZ** drive changes in GVC participation rates, with **mining** and **metals** being the key drivers.

# Almost all CAREC member countries have vast reserves of critical minerals

## Diversity of available critical minerals and share of global reserves in Central Asia



- **Critical minerals** in CAREC countries could contribute to **diversification of clean energy products globally**.
- The **PRC** is the strongest player in the global critical minerals supply chain.
- **CAREC countries** have vast reserves of critical minerals which are exported with **minimum value-added processing activities**, putting these countries in more upstream chains of GVCs.

## What is EU's Carbon Border Adjustment Mechanism (CBAM)?

- Currently in transitional phase (October 2023–December 2025), to expand to all emissions trading system (ETS) covered sectors in 2026.
- EU will impose **import charges** on carbon-intensive products—such as steel, cement, and electricity—based on the carbon dioxide emissions embedded in their production.
- Seeks to align global carbon prices and accelerate emission reductions worldwide, reduce “carbon leakage”
- Can significantly **impact** GVC supplier economies with higher shares of carbon-intensive exports to Europe, particularly **Central and West Asia**

# How the EU's CBAM will impact the competitiveness of CAREC member countries?

## Modeling scenarios to estimate the impact of the EU's CBAM on CAREC economies

Scenario 1	The EU imposes tighter ETS carbon allocations, with a resulting €100/MT price. CBAM taxes are imposed for ETS sectors at the same price as ETS (€100/MT).	100 €/MT CO2
Scenario 2	Not only the EU but all OECD economies impose tighter ETS carbon allocations, with a resulting €100/MT price. CBAM taxes are imposed for ETS sectors at the same price as ETS (€100/MT).	100 €/MT CO2
Scenario 3	CAREC economies impose a domestic carbon tax at a €50/MT. All OECD countries apply CBAM to CAREC at a partial rate, reflecting lower carbon price. CBAM taxes are imposed for ETS sectors.	50 €/MT CO2 OECD and 50 €/MT in CAREC

- A **CGE Model** to assess the implications of the EU's **Carbon Border Adjustment Mechanism (CBAM)** on CAREC economies, under three scenarios.
- Carbon pricing policies are in place across almost 40 jurisdictions.
- **CAREC region will be affected by CBAM.**

Note: During the phase-in period, the CBAM regime will not apply to all ETS sectors. However, the CBAM system is expected to be expanded to all ETS sectors after the phase-in period. There are discussions on expanded sector coverage. We do not model further ETS expansion here.

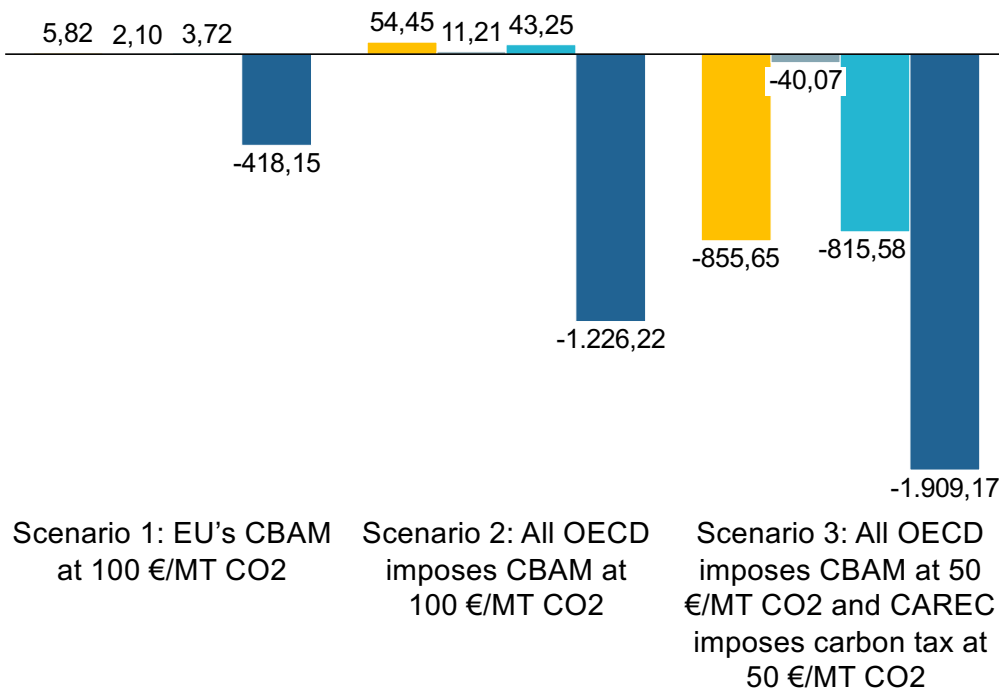


Source: ADB



# Will CBAM reduce CO2 emissions in CAREC countries?

## Change in CO2 emissions, MTCO2



- **CO<sub>2</sub> emissions are reduced globally** if all OECD economies impose a CBAM at €100/MT and CAREC economies impose domestic carbon pricing at €50/MT.
- **PRC** will have a **significant reduction of CO<sub>2</sub> emissions** and contribute to global reduction under this scenario.
- CBAM in both EU and OECD without carbon pricing in CAREC will **increase emissions** in all CAREC economies, due to possible carbon leakage and downstream production shifting to CAREC economies (under the Scenario 1 and 2).

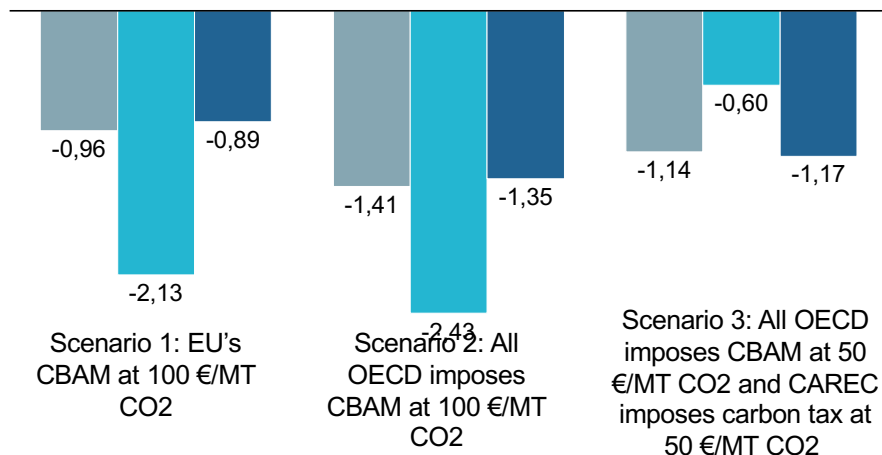


■ CAREC 
 ■ CAREC (excl China) 
 ■ China 
 ■ World

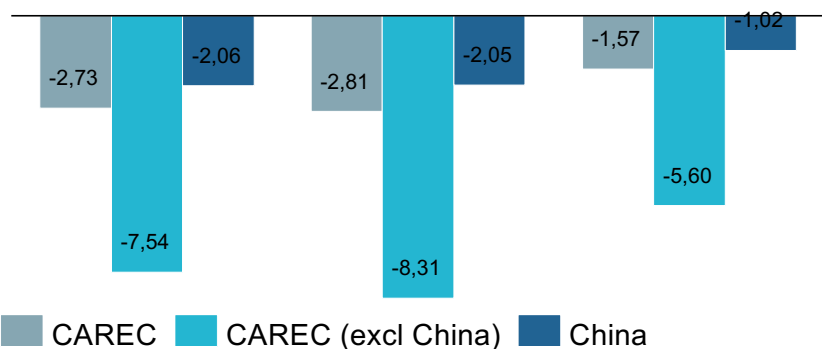


# Will CBAM impact CAREC's export?

Change in total export in CAREC, % change.



Change in exports to the European Union, % change, VALUES



- For CAREC countries with high CO2 intensities in extractive sectors, **CBAM can create a challenge.**
- CBAM could lead to significant **declines in exports and industrial production of CAREC** countries in CBAM-covered sectors.
- **CAREC 10 countries** (excluding the PRC) **are estimated to have the most substantial decline in total exports** and in exports to the EU market.

# What is the way forward?



## Urgent cooperation on climate change and environmental risks

- Reinforcing mutual commitments to reduce climate change and environmental risk to GVCs and implementation of actions under the CAREC Climate Change Vision.



## Systematic effort to reduce trade costs, focusing on nontariff costs

- Harmonize Transport and Vehicle Standards; Enhance Customs Efficiency and Transparency; Coordinate Border-Crossing Operations; and implement national single window



## Digitalization of trade processes

- Digitalizing trade processes will increase transparency and traceability in supply chains while at the same time promoting greening trade and making supply chains more adaptable and resilient.



## Stakeholders' alignment on development of CAREC corridors

- CAREC is supporting the development and upgrade of six CAREC transport corridors to international standards, and Economic Corridor Development, which will help link the region's key economic hubs to each other.



## Regional standards on "Green Value Chains"

- CAREC can encourage sustainable practices across their supply chains by reducing trade barriers on environmental goods and services and expanding access to green trade financing, particularly for small and medium-sized enterprises.



## Strengthen cooperation to attract investments

- Improving governance and investment regulations to attract investments for strategic technology and financial partnerships with countries and firms active in intermediate processing and downstream manufacturing.



Source: ADB

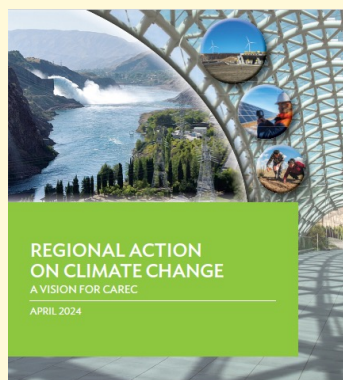


# Implementing the CAREC Climate Change Vision

## CAREC Climate and Sustainability Project Preparatory Fund

### Regional Action for Climate Change: A Vision for CAREC

*A Region of Sustainable Development, Shared  
Prosperity, and Climate-Resilience*



#### Climate Change Vision

endorsed by the CAREC  
Ministers in November 2023

#### 3 Goals

Mitigate climate change  
Adapt to climate change  
Cooperate across borders

#### 7 Priority Areas

(i) energy, (ii) water, (iii)  
agriculture, (iv) transport,  
transit, and trade, (v)  
climate-smart cities, (vi)  
climate-related disasters,  
and (vii) health, education  
and social protection

Multi-donor trust fund

Aims to address and narrow CAREC countries' infrastructure and **climate financing** gaps and accelerate achievement of SDGs & Paris Climate Agreement

Support preparation of bankable climate- and SDG-related **regional projects** via:

- Enhanced capacity to incorporate climate features in the design of regional projects;
- Cooperation in regional projects, including with transboundary climate spillovers (positive and negative); and
- Joint initiatives and programs to reduce greenhouse gas (GHG) emissions and develop regional carbon trading.

## Questions for Discussion

### Decarbonizing value chains:

- How CAREC governments plan to reduce carbon intensity of its exports to meet increasing environmental standards?
- How can development partners support in strengthening competitiveness of member countries amid growing cross-border carbon pricing mechanisms?
- How can member countries collaborate to develop regional approaches in these areas?

### Climate financing needs:

- What are the key financing constraints in the climate change agenda in CAREC countries?
- How can we mobilize innovative financing instruments and develop bankable projects to support the region's climate change agenda?
- How can CAREC more effectively facilitate public-private dialogue and incentivize private-sector investment to advance the global climate agenda?