

## **Economic Brief**

# ETS Analysis in the CAREC Region

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#### **ETS Analysis in the CAREC Region**

#### Introduction

Following extensive policy and economic discourse, policymakers and scholars have reached a consensus that establishing accurate carbon price signals through market-based mechanisms is the most efficient way to mitigate emissions. Although the global adoption of carbon pricing is incomplete, research into institutional design, particularly Emissions Trading Systems (ETS), has provided significant theoretical and empirical insights with wide-reaching implications.

This year marks the 10th anniversary of the Paris Agreement, in which nations came together to address urgent climate challenges. As a direct carbon pricing instrument, ETS enables countries to set clear emission reduction targets, promote cost-effective decarbonization and encourage innovation. However, the urgency of these efforts is unprecedented — 2024 was recorded as the warmest year on record, with global temperatures exceeding 1.5°C above pre-industrial levels for the first time.

The EU's decision to implement the Carbon Border Adjustment Mechanism (CBAM) in 2026 emphasizes the significant role of Emissions Trading Systems (ETS), on which the CBAM is based. At the same time, the EU is set to phase out free allowances under its ETS from 2026 to 2034 (see Table 1). These policy changes will increase export costs for trading partners unless they substantially reduce the carbon emissions of their exported goods. Consequently, studying the ETS has significant policy implications for CAREC member states.

Table 1: Timeframe for the Abolition of the EU ETS Free allowance

Status	Time Frame	Legislative Requirement
Transition	2023.10.01- 2025.12.31	Importers are required to report the embedded carbon emissions of covered goods at the end of each calendar quarter without being obligated to pay corresponding CBAM costs
Implementation	2026.01.01- 2033.12.13	Imposition and phasing out of the free allowance
	2034.01.01	Full abolishment of the free allowance

Source: Compiled by the author according to the EU Regulation 2023/956<sup>1</sup>

According to the International Carbon Action Partnership's (ICAP) 2025 Status Report 2, the

https://eur-lex.europa.eu/eli/reg/2023/956, access on 21, April 2025

<sup>&</sup>lt;sup>2</sup> ICAP. (2025). Emissions Trading Worldwide: Status Report 2025.

establishment of a global carbon tariff system is accelerating in four areas: market expansion, price volatility mechanisms, extending sectoral coverage, and improving international coordination. As CAREC economies are dominated by energy-intensive industries, the region should proactively implement an ETS to fulfil its National Determined Contributions (NDCs) and advance sustainable macroeconomic development. Currently, only China and Kazakhstan — the region's most developed economies, which have substantial emissions and strong trade links with the EU — have established national ETSs. Their ETS development trajectories provide critical benchmarks for neighboring economies. This study therefore presents a comparative analysis of the Chinese and Kazakh ETS frameworks in global and regional contexts while examining the feasibility of regional ETS integration.

### Box: Understanding Emissions Trading Systems (ETS) - Cap-and-Trade vs. Rate-Based Approaches

Emissions Trading Systems (ETS) vary in design, with the two most common models being "cap-and-trade" and "rate-based" systems. These systems use different terminologies for emission units, and their carbon prices are determined by the supply and demand of these units.

#### 1. Cap-and-Trade ETS

In a cap-and-trade system, governments impose a strict limit (cap) on total greenhouse gas (GHG) emissions of specific sectors. The distribution or auction of emission allowances, equivalent to the stipulated cap, is the responsibility of regulators. Covered entities are obligated to retain these allowances to ensure compliance with the regulations. In the event that a company's emissions fall short of its allocated limit, it is permitted to sell any surplus permits. Conversely, if a company's emissions exceed its allocated limit, it is obligated to purchase additional allowances to offset the discrepancy. Examples: EU ETS and California Cap-and-Trade Program.

#### 2. Rate-Based (Intensity-Based) ETS

A rate-based system does not fix total emissions, but instead sets emission intensity benchmarks (e.g., CO<sub>2</sub> per unit of output). In the context of corporate sustainability, companies that demonstrate superior performance in comparison to their established benchmarks are rewarded with the issuance of tradable credits. Conversely, those entities that fail to meet their environmental targets are obligated to acquire credits to counterbalance their excess emissions. It is evident that the allocation of resources is subject to modification in accordance with prevailing production levels. This approach is characterized by its enhanced flexibility, a quality that is particularly beneficial for economies in growth mode. Disadvantage: NDCs might be jeopardized by higher than foreseen growth. Examples: China's National ETS and Canada's Output-Based Pricing System (OBPS).

Source: Compiled by the author according to 'State and Trends of Carbon Pricing 2023', World Bank

#### Global ETS landscape

Before examining CAREC's regional ETS development, it is important to review the global landscape of ETS systems. Our analysis focuses on two key aspects: (1) the quantity and sectoral coverage of global ETS systems, and (2) the corresponding carbon price levels and revenue generated.

#### 1. Quantity and Coverage

Also published by the ICAP, the number of systems being adopted and developed around the world is increasing. As of January 2025, 38 systems are in place globally, two more than in 2024, with a further 20 in various stages of development or consideration. Middle-income countries around the world, such as Brazil, India, Chile, Colombia and Turkey, have accelerated their efforts to establish emissions trading frameworks. But one observation is that out of 38 active schemes worldwide, most of which are regional or partial, only 10 are national carbon markets. For the sake of clarity, this study presents in Table 2 only established national ETSs, with two out of the ten in the CAREC region, in China and Kazakhstan.

Table 2: The established national ETS across the world

No.	Name	Year	Coverage
1	China	2021	Electricity
2	EU (plus Iceland, Liechtenstein and Norway)	2005	Power & Heat Generation, Industry, Aviation, Nitric acid production, Aluminum production etc.
3	Germany	2021	Transportation and Buildings
4	Kazakhstan	2013	Energy, Mining etc
5	Mexico	2020	
6	New Zealand	2008	Energy, Forestry, Agriculture, and
7	Republic of Korea	2015	Electricity, Heavy Industries, Buildings, Transportation
8	Switzerland	2008	Electricity and Aviation etc.
9	Ukraine	2011	Energy etc.
10	United Kingdom	2021	Electricity and Aviation etc;

Source: Compiled and originated by the author according to the WB and ICAP reports.

Progress has also been made in extending coverage beyond traditional sectors to maritime transport, road transport fuel use, buildings and waste management. In addition, the share of global emissions covered by ETSs increases slightly to 19% by 2025. While new schemes expand coverage by bringing more sectors or regions under regulation, this increase is partially offset by emission reductions driven

by stricter caps in existing ETS—resulting in only a modest net growth in global coverage.

Table 3: Overview of major international carbon markets in 2024

Country/region	Trade Volume (Hundred Million USD)	Auction (%)	Auction price (USD/ton)
EU	6760	57%	95
China	16.8	5%	12.57
California State	85	50%	26.5
Washington State	12	47%	26.7
Quebec	21.5	61%	26.5
Korea	1.34	3%	6.3
Switzerland	0.5	8%	59.17

Source: Compiled by the author according to ICAP's "Global Carbon Emission Market Progress: 2024"

To ensure a fair comparison, this analysis focuses exclusively on national ETS programs, given that Kazakhstan's system operates solely at the national level. Consequently, regional and partial schemes have been excluded for the sake of brevity. According to the ICAP report, the EU ETS, China's national carbon market and North American markets (including the Regional Greenhouse Gas Initiative (RGGI), the California-Quebec linked system and Washington's Carbon Cycle Act (CCA)) will continue to dominate the global carbon pricing landscape in 2025. Other major economies with operational carbon markets, such as South Korea (K-ETS), New Zealand (NZ ETS) and Japan (through the Tokyo and GX ETS pilots), are also projected to play significant roles, as outlined in Table 3. It is notable that nearly one-third of the global population currently lives under an operational ETS, and that jurisdictions representing 58% of the world's GDP have implemented emissions trading systems.

#### 2. Price and Revenues

The primary function of the ETS is to correct the price signal for the externality of GHG emissions. Through market mechanism where prices are determined by supply and demand, the ETS provides clear price signal that guides investment decisions, drives technological advancement and promotes low-carbon resilient development.

In 2022, the EU ETS surged from USD 57 to USD 87 per ton of  $CO_{2 \text{ equivalent}}$  (tCO<sub>2</sub>e). In the first half of 2023, carbon prices declined due to economic slowdown, renewable energy expansion, and reduced energy demand from a mild winter. However, priced rebounded in the second half of 2023 after the EU implemented the "Fit for 55" reforms (tightening allowance supply) resulting in an annual fluctuation range is approximately USD80/ $_{tCO_2e}$ . Despite promising progress at the global level, 2024 saw increased

market volatility, with an early-year price drop followed by stabilization at lower levels throughout the year, setting at USD 69/  $_{tCO_2e}$ . Most other ETSs follow a similar trend; however, China's national ETS diverged, rising moderately from USD 8.3/  $_{tCO_2e}$  in 2021 to USD12/  $_{tCO_2e}$  in 2023. Meanwhile, Kazakhstan's ETS experienced relative price stability between 2022 and 2024, hovering around USD 5/  $_{tCO_2e}$ , reflecting its smaller market size and slower policy adjustments.

ETS Price in USD

100
90
80
70
60
50
40
30
20
10
0
2022
2023
2024
EU China KAZ

Figure 1: A Comparative Analysis of ETS Price Trends in the EU, China, and Kazakhstan (2022-2024, USD)

Source: Calculated by the author according to the ICAP and WB ETS data

Revenue generated through carbon allowance auctions in pricing systems is directly tied to price signals—which reflect not only current circumstances but also embedded market expectations and policy trajectories. Evidently, a close correlation is observed between trends in revenue and fluctuations in carbon prices from 2022 to 2024. As prices exhibited fluctuations, revenues demonstrated a comparable trajectory. The EU ETS has been the dominant player in the global carbon market, accounting for over 60% of the total revenue. In 2022, the scheme contributed USD 63 billion, reaching a peak of USD 73 billion in 2023 before declining to USD 66 billion in 2024. This dominance can be attributed to the EU's well-established, high-price market (averaging €80–85/tCO2), stringent caps, and limited free allowances. Conversely, emerging markets such as Kazakhstan and China experienced marginal revenues due to oversupply, low prices (frequently below USD 10/tCO2) and substantial free allocation shares. Notwithstanding, the augmentation of ETS revenues on a global scale signifies a favorable progression, as it serves to enhance the allocation of financial resources to climate-related initiatives. These initiatives encompass provisions for vulnerable populations and mitigate the transition to a low-carbon economy.

#### **CAREC Regional ETS landscape**

As mentioned above, only two CAREC members have so far established relatively well-organized ETSs

in the CAREC region: China and Kazakhstan. This section therefore examines these two national ETSs in more detail to provide a better understanding of the regional ETS landscape.

#### **China's National ETS**

China has long been recognized as the 'world's factory' thanks to its extensive industrial system. However, this rapid industrialization has also made China the world's largest carbon emitter, consequently placing high expectations on the country's emission reduction efforts from the international community. At the same time, China is under pressure to transform its development model, improve energy and resource efficiency, and promote high-quality growth in order to address the challenges of sustained economic development.

To fulfill its Nationally Determined Contributions (NDCs) and facilitate international exchanges on carbon pricing and market mechanisms, China has pursued a distinctive ETS development path. Since 2011, China has piloted carbon emission trading markets at local levels. By July 2025, regional carbon markets had established in Beijing, Tianjin, Shanghai, Chongqing, Hubei, Guangdong, and Shenzhen. These pilot programs provided valuable institutional frameworks, industry coverage models, innovation mechanisms, and technical support that laid the groundwork for the national carbon market.

After over a decade of work developing such mechanisms, a national carbon emission trading market was established on 16 July 2021 under the supervision of the Ministry of Ecology and Environment (MEE). The market operates according to the 'Measures for the Management of Carbon Emission Trading (Trial)', which governs activities relating to national carbon emission trading. These include quota allocation and settlement, carbon emission allowance registration, trading and clearing, and greenhouse gas emission reporting, verification and monitoring. Initially, industries included in the national carbon market's quota management are power generation enterprises and key emission units with annual greenhouse gas emissions of at least 26,000 tons of carbon dioxide equivalent. This includes thermal power, cogeneration and biomass power generation. Currently, self-owned power plants (regardless of industry) that meet the above emission thresholds are included. The trading product in the national carbon trading market is 'carbon emission allowances'. It should be noted that additional trading products will be developed in due course. Furthermore, while carbon emission allowances are currently allocated primarily for free, paid allocations will be introduced over time.

Key emission units traded in the national trading system will no longer be traded in the local market. Currently, however, the local and national trading systems are operating in parallel. In the future, there is a possibility that the local and national markets will merge to form a single market. Currently, Hubei Province runs the National Carbon Emission Allowance Registration System, and Shanghai runs the National Carbon Emission Allowance Trading System. Both institutions are required to regularly report to the Ministry of Ecology and Environment (MEE).

Table 4: China National ETS Overview<sup>3</sup>

Category	Description
Launch Date	July 16, 2021
Trading Product	China Carbon Emission Allowance (CEA)
Carbon Price (2024)	¥69.67-106.02/t CO₂e (in 2024)
Covered Sectors	Power generation (2,225 coal/gas-fired plants initially)
Allowance Allocation	Free allocation
Regulatory Body	Ministry of Ecology and Environment (MEE)
Covered Emissions	4.5 billion tons/year (45% of national CO₂ emissions), making it the world's second largest ETS by coverage
Compliance Cycle	Annual compliance deadline (Dec 31), with allowances valid for 5 years.

Source: Compiled by the author according to the official documents.

According to China's official data<sup>4</sup>, in 2024, the highest recorded price was  $$106.02/$ tco_2e$ , while the lowest was  $$69.67/$tco_2e$ . The closing price changed by 22.75% compared to the price on the last trading day in 2023. In 2024, the total trading volume of allowances on the national market was 188,646,053 tons, with a total value of about RMB 18 billion yuan. By December 31 2024, the accumulated trading volume had reached 630,268,664 tons, with an accumulated trading value of approximately RMB 43 billion yuan.

"China's national ETS covers more than double the emissions of the EU ETS, but in effect it adopts 100% free allocation through technology-specific, emissions-intensity baselines. This approach means low direct costs for most covered entities, but also that the policy has not raised any revenue"<sup>5</sup>. Therefore,

<sup>&</sup>lt;sup>3</sup> Data was of 2024 published by MEE.

<sup>&</sup>lt;sup>4</sup> https://www.cneeex.com/c/2024-12-31/495878.shtml

<sup>&</sup>lt;sup>5</sup> "State and Trends of Carbon Pricing 2023" World Bank

China is the largest compliance market in the world regarding the coverage of GHG, without sufficient money term revenue.

Thus, China has put improvement and enhancement on the table. On 20 March 2025, the MEE released a work plan 6 to expand the sectoral coverage of the national ETS. It is called "Work plan for the expansion of the national carbon emissions trading market to the steel, cement, and aluminum smelting industries". In 2025, the steel, cement and aluminum smelting industries will be regulated for direct greenhouse gas emissions from fossil fuel combustion and industrial processes. For the steel and cement industries, the regulated GHG is carbon dioxide ( $CO_2$ ), while the aluminum smelting industry will be regulated for carbon dioxide, tetrafluoromethane ( $CF_4$ ) and hexafluoroethane ( $C_2F_6$ ). This expansion will add approximately 1,500 new major emitters, covering an additional 3 billion tons of  $CO_2$ , equivalent to about 5% of global emissions.

The work plan divides the expansion into two phases, the first being the implementation phase (2024-2026). In 2025, the target is for the first compliance to be completed by the end of 2025. And for 2025 and 2026, quotas will be allocated using a carbon intensity control approach to incentivize high performers and encourage improvement among laggards. Quota allocation to companies will be linked to the production output, with a reasonable quota surplus or deficit rate to ensure overall balance in the industry. The second phase is the deepening and improvement phase (2027-), aimed at further refining monitoring mechanisms while the participation capacity of all stakeholders will be comprehensively strengthened. The quality of carbon emissions data shall be significantly improved, with greater authenticity, accuracy and completeness, and quota allocation methods shall become more precise. Transparent. and predictable mechanisms shall be established to gradually tighten industry-wide quota allocations. After expanding to the three new sectors, the China national ETS is expected to cover around 3,700 entities, with approximately 8 billion tons of emissions, equivalent to about 15% of global emissions.

Furthermore, to provide additional policy tools for achieving the "dual carbon" goals (carbon peak and carbon neutrality), China officially launched the "National Voluntary Greenhouse Gas Emission Reduction Trading Market" on January 22, 2024. This market quantifies and certifies the greenhouse gas reduction effects of projects in areas such as renewable resources, forestry carbon sinks, methane emission reduction, and energy efficiency improvement. Under certain conditions, these certified reductions can be used to offset carbon emission quota settlements. Additionally, Carbon Capture, Utilization, and Storage (CCUS) technology is a crucial global climate solution for achieving near-zero emissions. China is actively researching the inclusion of CCUS in the voluntary carbon market through appropriate project methodologies. The work plan confirms that the national ETS will no longer cover indirect emissions. Companies in the three new sectors currently participating in regional pilot ETS programs will transition to the national ETS.

#### **Kazakhstan National ETS**

Kazakhstan has high GHG emissions per unit of gross domestic product (GDP). In December 2012, the Kazakh government approved legislation for the Kazakhstani ETS. The first operational nationwide ETS

<sup>&</sup>lt;sup>6</sup> https://www.cneeex.com/c/2024-12-31/495878.shtml

<sup>&</sup>lt;sup>7</sup> https://www.cneeex.com/c/2025-03-26/496044.shtml

of Developing Member Countries in the CAREC region became operational in August 2013. The key design features are summarized in Table 5.

**Table 5: Overview of the Emissions Trading System in Kazakhstan** 

Building Block	Description
Legal Foundation	ETS was developed according to amendments to certain legislative acts of the Republic of Kazakhstan relating to environmental issues. In December 2012, Kazakhstan's government approved the legislation on its ETS.
Coverage (GHGs)	CO₂ only, but both CH₄ and N₂O emissions must be reported.
Coverage (Sectors)	Coal, oil, and gas production; power; mining and metallurgy; chemical industries. Inclusion of agriculture and transport being considered.
Threshold	Installations with annual emissions above 20,000 tCO₂e.

Source: Compiled by the author according to The World Bank Database (2015) & Trading Economics: CO₂ Emissions (kt) in Kazakhstan

As an early adopter of the ETS, Kazakhstan's ETS covers only carbon dioxide emissions from large companies in the energy sector; and because it follows the EU ETS as a role model, Kazakhstan faced operational issues such as severe price fluctuation and verification delays, related to the operation of a cap-and-trade system, which led to the suspension of the carbon market in 2016-2017. In 2018, Kazakhstan resumed operations following legislative changes to the overall regulation of GHG emissions, the operation of the ETS and the (monitoring, review and verification) MRV system. The new legislation also laid the groundwork for introducing benchmarking in the allowance distribution (International Carbon Action Partnership 2024), covering industries such as oil and gas, mining, metallurgy, chemicals and manufacturing. This accounts for 41.1% of the country's emissions. Kazakhstan also shares a common feature with China in that it distributes allowances for free and attempts to convert them into chargeable allowances. Since 2018, Kazakhstan has updated its system, with the current operation of the Kazakhstan ETS moving from allocating allowances based on historical emissions to product-based benchmarking (see, for example, Kuneman et al. 2022).

Kazakhstan's Emissions Trading System (ETS) operates under a regulatory framework established by the Ministry of Ecology and Natural Resources, anchored in the Environmental Code of the Republic of Kazakhstan (2021). This legal foundation aligns with the nation's enhanced climate targets: (1) a 15% unconditional (or 25% conditional with international support) reduction in greenhouse gas (GHG) emissions below 1990 levels by 2030, as stipulated in its updated Nationally Determined Contribution (NDC), and (2) carbon neutrality by 2060.

To operationalize these goals, the 'National Allocation Plan (2022-2025)' governs allowance distribution, with 8.1 million tCO<sub>2</sub> earmarked for allocation to 59 regulated installations in 2024 from strategic reserves. Notably, the 2024-2025 cap demonstrates increased stringency, featuring a 19% reduction in reserve allowances (as revised January 2024) compared to prior periods. This tightening reflects Kazakhstan's efforts to address chronic overallocation issues identified in earlier phases (2018-2021), where free allocations exceeded actual emissions by 12-18% annually.

Going forward, Kazakhstan plans to develop its national ETS in the following areas: auction system (to replace free allocation); alignment with international markets (e.g. EU ETS); ensuring MRV integrity, increasing accuracy of emissions reporting and reliability of third-party verification; tightening product-based benchmarks to incentivize efficiency; and expansion to other sectors or introduction of carbon taxes.

#### Persistent Challenges, Risks, and Policy Pathways for ETS Development in the CAREC Region

Although China and Kazakhstan have achieved notable milestones in developing their Emissions Trading Systems (ETS), significant challenges continue to hinder their full effectiveness. These obstacles stem from structural limitations within the systems themselves, as well as region-specific barriers unique to CAREC economies.

While China's ETS is the world's largest in terms of emissions coverage since its launch in 2021, it faces several structural constraints. Currently, the system only regulates the power sector, which represents a much narrower scope compared to the EU ETS, which encompasses 16 industries, including aviation and chemical production. This limited coverage significantly reduces its overall impact. Furthermore, the carbon price in China's market remains relatively low, at around ¥50−60 (€6−7) per ton of CO₂ equivalent — substantially below the EU's €80 per ton. Such depressed pricing fails to create sufficient economic incentives for meaningful decarbonization efforts. The system's reliance on free allowance allocations, as opposed to the EU's auction-based approach, further weakens price signals and market efficiency. These issues are compounded by persistent problems with data quality and inconsistent reporting from participating enterprises, as well as inadequate oversight of third-party verification processes.

The CAREC region faces unique challenges when it comes to implementing effective ETS frameworks. In resource-rich nations such as Kazakhstan and Turkmenistan, entrenched fossil fuel interests pose strong political resistance to meaningful carbon pricing reforms, creating substantial barriers. Tajikistan's efforts are hindered by its limited institutional capacity, particularly about developing the sophisticated monitoring, reporting and verification (MRV) systems necessary for credible emissions trading. Across the region, inconsistent data governance standards and transparency issues create obstacles to market integration, as disparities in measurement and reporting protocols make cross-border coordination

difficult. These regional challenges, combined with the structural limitations of existing systems, present a complex landscape for the development of carbon markets in the CAREC region.

There are also easily overlooked underlying impediments. For example, carbon leakage risks emerge when industries relocate to avoid compliance costs, which undermines emission reduction efforts. Low-income households face disproportionate energy cost burdens, creating social equity challenges in carbon pricing schemes. Market price volatility also discourages long-term investment in low-carbon technologies without stabilization mechanisms.

In order to move forward, the technical shortcomings of existing ETS frameworks must be addressed, as well as the political and economic realities of the region. For China, this involves expanding sectoral coverage, moving towards auction-based allocations and improving data verification systems. CAREC nations must prioritize building institutional capacity, improving data transparency and navigating the political challenges of transitioning from fossil fuel-dependent economies. Only by tackling these multifaceted challenges can the region develop carbon pricing mechanisms capable of making meaningful reductions in emissions while supporting sustainable economic development.

#### Policy recommendations and regional outlook for CAREC's carbon market development

In order to accelerate the adoption of Emissions Trading Systems (ETS) and mitigate the associated risks, CAREC policymakers should implement a comprehensive strategy that balances climate objectives with economic realities.

Firstly, carbon revenues and international climate finance should be redirected strategically to increase renewable energy infrastructure, particularly solar and wind projects, as demonstrated by Uzbekistan's pilot ETS program.

Second, for industries exposed to the EU's Carbon Border Adjustment Mechanism (CBAM), such as cement and metals, sector-specific ETS frameworks with output-based benchmarks should be developed to maintain competitiveness while driving decarbonization. Equally critical is strengthening Monitoring, Reporting and Verification (MRV) systems; partnerships with institutions such as the World Bank and the Asian Development Bank (ADB) can enhance technical capacity and ensure data transparency, which is essential for future international market linkages.

Furthermore, revenues from carbon pricing must be leveraged to support a just transition, including targeted measures such as Mongolia's retraining programs for coal workers and energy subsidies for vulnerable households. At a regional level, harmonizing ETS rules between Kazakhstan, Uzbekistan and China could pave the way for an integrated CAREC carbon market, with the gradual inclusion of other nations through carbon tax linkages, as Azerbaijan has done.

The CAREC region's transition to carbon pricing should be phased and tailored to the readiness of each economy. Leading nations such as China and Kazakhstan should expand their coverage to include more sectors, as China is set to do with steel and cement by 2025. They should also transition from free allocations to auction-based systems to strengthen price signals. Meanwhile, emerging economies such as Uzbekistan and Mongolia should focus on launching robust ETS pilots that safeguard against carbon leakage and socioeconomic inequities. Lagging countries, including Turkmenistan and Afghanistan,

should prioritize building foundational MRV capacity before introducing carbon pricing. A coordinated regional strategy informed by the EU's experience, but adapted to local contexts, can align climate ambition with sustainable growth. By aligning policy frameworks, fostering cross-border collaboration and addressing structural and equity challenges, CAREC members can establish carbon pricing as a catalyst for reducing emissions and enhancing economic resilience. Table 6 summarizes the status of major CAREC economies in this transition.

**Table 6: Overview of the Cabon Pricing Policy Prospect in CAREC region** 

Country	Stage	Mechanism	Target Sectors	Timeline	Key Supporters
Uzbekistan	Pilot ETS prep	ETS (benchmarki ng)	Power, cement	2025 launch	World Bank, ADB
Georgia	Feasibility study	EU-style ETS	Power, construction	Post-2025	ADB
Azerbaijan	Roadmap published	ETS (oil/gas focus)	Oil & gas	2026 pilot	National policy
Mongolia	Carbon tax study	Tax (\$5– 10/tCO₂)	Coal mining	Under review	World Bank
Pakistan	Legislation passed	ETS (pilot planned)	Cement, textiles	2025–2026	ADB
Tajikistan	Early research	Potential carbon tax	Aluminum	_	World Bank

Source: Contained by the author from the website of WB, ADB and ICAP

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