



Opportunities and Challenges for Accelerating Climate Action in CAREC

8 SEPTEMBER 2025

ALMATY, KAZAKHSTAN

NORITAKA AKAMATSU

CONSULTANT, ASIAN DEVELOPMENT BANK

CAREC economies

- ▶ Diverse economies in terms of population, per capita income, industrial structure, resource endowments, climate/disaster risks
 - ▶ Population ranges from Pakistan with 251 million to Mongolia with 3.5 million, with the regional total of about 400 million (AFG 42.7, AZE 10.2; GEO 3.7; KAZ 20.6; KYR 7.2; MON 3.5; TAJ 10.6; TUR 7.5; UZB 36.4; Xinjiang 25.9)
 - ▶ Per capita GNI varies From PRC (\$13,600) and Kazakhstan (\$12,250) to Tajikistan (\$1,650) and Afghanistan (\$370) => differing access to concessional resources (OCR Only: Azerbaijan, PRC, Georgia, Kazakhstan, Turkmenistan; OCR Blend: Mongolia, Pakistan, Uzbekistan; ADF Blend: Kyrgyz Republic; ADF Grants Only: Afghanistan, Tajikistan)
- ▶ Rich in natural resources, but they are unevenly distributed across member countries, leading to uneven income levels.
 - ▶ Azerbaijan, Kazakhstan, Turkmenistan are rich in oil & gas, while Mongolia possesses coal, gold and various minerals. Many are rich in timber, livestock

Geography and climate

- ▶ Mountainous with deserts connected with Six CAREC corridors
 - ▶ Access to the Indian Ocean: Pakistan
 - ▶ Access to the Black Sea and/or the Caspian Sea: Azerbaijan, Georgia and Turkmenistan
 - ▶ Landlocked: Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan, Uzbekistan, Xinjiang
 - ▶ Syr Darya flows through Kyrgyz Republic, Uzbekistan, Tajikistan and Kazakhstan into the northern Aral Sea. Amu Darya flows through Tajikistan, Turkmenistan, Uzbekistan and Afghanistan into the southern Aral Sea.
- ▶ Climate: Mostly arid with humid coast areas. Cold winter and hot summer.

Climate Impacts

Faced with rising temperature, extreme weather events and natural hazards, threatening energy and water availability, food security and economic stability

- ▶ 30% decrease in glacier surface area in 50~60 years due to melting of snowcaps. Combined with intensifying weather events, it has triggered floods and landslides.
- ▶ 33 million people affected by flooding in Pakistan in 2022. Heavy rains triggered floods, landslides, and glacial lake outbursts. 60% of annual rainfall in just three weeks. Flooding also affected trade infrastructure in Kazakhstan.
- ▶ Afghanistan and PRC were affected by draughts
- ▶ 10-15% drop in water volumes in the Syr Darya and Amu Darya basins by 2050, key sources of water. By 2050-2100, water volumes could decrease by up to 30% in Syr Darya => CAREC members must work together to ensure water sustainability.
- ▶ 3 billion cubic meters: Uzbekistan's current water deficit, which could increase to 7 billion by 2030 and up to 15 billion by 2050.

Challenges

- ▶ Fundamental challenge: Climate is a global public good.
 - ▶ Except for a small number of large, industrialized economies, each country can contribute only a small share. But consequences of noncooperation can be disastrous for all.
 - ▶ Conflicts of interest between developed and developing countries in sharing burdens.
 - => Global leadership, guidance and cooperation are necessary
 - => Vital for CAREC to have a **collective regional voice** to protect its interest
- ▶ CAREC needs to invest 339 billion in energy by 2030 to enable green growth. Only one quarter has been invested mostly by the governments. But the availability of public finances and international resources is limited.
- ▶ Need to mobilize finances from the private sector and the market
 - ▶ GSS+ bonds have been explored. Equity finance for start-ups and growth-oriented SMEs that promote Green and climate-friendly products and services.
 - ▶ **Carbon credit market** can help reduce GHG at the least cost to the economy. Fair and rational pricing is vital, for which transparency with reliable data is necessary, e.g., Carbon Border Adjustment Mechanism (CBAM) of EU

CAREC Climate Change Action Plan (CCAP) 2025 – 2027

- ▶ CAREC members need to invest in enhancing resilience, climate-adaptive infrastructure and transition toward low-carbon economic pathways aligned with global climate targets, reconciling with economic growth and job creation
- ▶ CCAP is built on the Climate Change Scoping Study and Regional Action on Climate Change endorsed in 2023 in coordination with CAREC WGCC.
- ▶ CCAP addresses
 - ▶ Identification of gaps in regional climate actions,
 - ▶ Prioritization of regional climate adaptation and mitigation projects and mobilization of finances for them, and
 - ▶ Strengthening of coordination among development partners.

Climate action areas

- ▶ Climate risk, preparedness, health
 - ▶ Climate risk assessment, resilient infrastructure planning, multi-hazard early warning systems (MHEWS), risk transfer solutions
- ▶ Water–energy–food security nexus
 - ▶ Water forecasting, glacier risk assessment (with ADB's Glacier-to-Farm program),
 - ▶ Irrigation reservoir restoration, river basin monitoring (with CAREC Water Pillar);
 - ▶ Climate adaptation, climate smart agriculture in mountainous areas (with G2F prog)
- ▶ Low carbon growth
 - ▶ Decarbonizing trade and transport corridors (with CAREC Trade Pillar)
 - ▶ Increasing grid readiness and renewable energy integration
 - ▶ Reducing emissions in urban areas
 - ▶ **Carbon market development** to support mitigation actions at the least cost
- ▶ CAREC climate platform
 - ▶ Institutions for cooperation and capacity building, and resource mobilization for climate actions

CAREC Working Group on Climate Change (WGCC)

- ▶ Established in April 2024, based on CAREC Climate Change Vision 2023 and endorsed by the CAREC Ministerial Conference in November 2023
- ▶ Align Paris Agreement-related activities in CAREC'S priority clusters and cross-cutting thematic areas
 - ▶ Coordinate and accelerate CAREC climate action;
 - ▶ Share best practices and experiences on and identify priority sectors for climate change adaptation and mitigation;
 - ▶ Mobilize climate finance; and
 - ▶ Promote One CAREC voice on climate change agenda, e.g., COP 29 in 2024

CAREC NDCs

	GHG reduction	Carbon neutral
Afghanistan	2015, 13.6% conditional reduction by 2030 (base 2005)	
Azerbaijan	2023, conditional 40% reduction by 2050 (base 1990)	
PRC	2025 , 7~10% reduction by 2035, increase non-fossil fuel energy to 30%, expand wind and solar power capacity to 3,600 gigawatts	
Georgia	35% reduction and 50-57% conditional reduction (base 1990)	
Kazakhstan	15% reduction by 2030 (base 1990)	2060
Kyrgyz Republic	2021, 15.97% reduction, 43.62% conditional reduction by 2030	
Mongolia	2025 , 20.3% reduction and 52.8% conditional reduction by 2035 (base BAU)	
Pakistan	2025 , 17% reduction, and 50% conditional reduction by 2035)	
Tajikistan	Not exceeding 60-70% (base 1990)	
Turkmenistan	20% reduction (base 2010)	
Uzbekistan	35% reduction of carbon intensity (base 2010)	

Opportunities – 1

Climate risk assessment, preparedness and health

- ▶ a) examine linkages between climate change and water-energy-health risks with data, and b) identify adaptation projects based on regional climate risk assessment
- ▶ Exchange early warning information/data for heatwaves
- ▶ Establish policies/measures for climate change health adaptation and upgrade health facilities in border areas
- ▶ Designing and piloting of disaster risk financing instruments

Water–energy–food security nexus

- ▶ Improve the capacity for forecasting glacier dynamics and water availability
- ▶ Enhance monitoring solutions piloted in transboundary river basins
- ▶ Improve climate-smart agriculture practices

Opportunities – 2

Low carbon growth

- ▶ Reduce emissions from heating/cooling and those through border crossing by trade process digitization to decongest and diversify trades
- ▶ Emission reduction resulting from regional renewable energy projects
 - ▶ Only 5% solar and wind energy capacity has been installed despite abundant potential. CAREC is relying heavily on fossil fuels and hydropower for energy.
 - ▶ Integrate intermittent renewable energy into the grid. Improve connectivity and flexibility of power grid based on physical infrastructure and better legislation and dynamic tariff system, e.g., Nordic region
- ▶ Low emission zones piloted
- ▶ Develop **carbon credit market** to reduce GHG at the least cost to CAREC-wide economy.
 - ▶ Member countries reliant on fossil fuel or renewable energy can exploit their different comparative advantages by trading carbon credits

Opportunities – 3

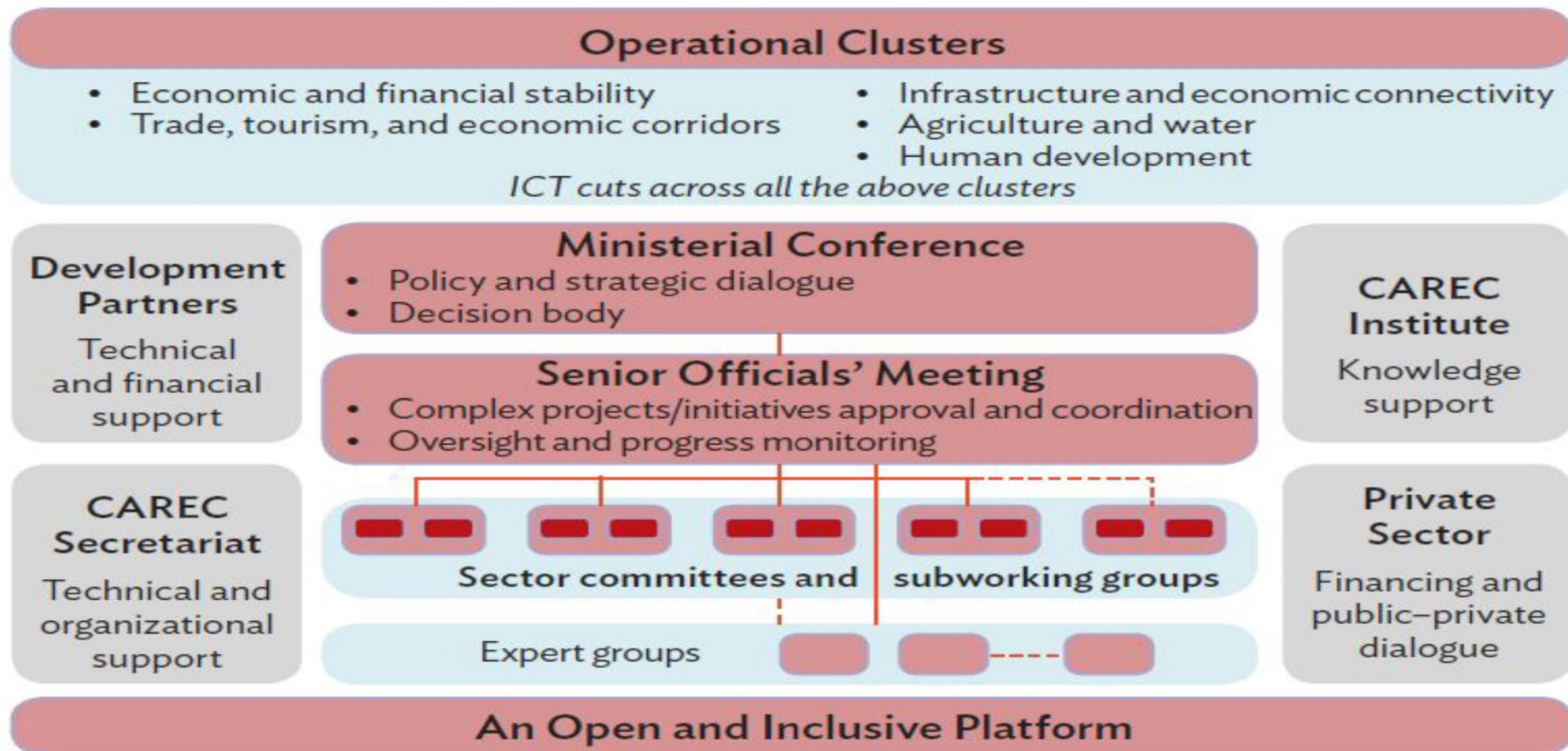
CAREC climate platform

- ▶ Build institutions to train stakeholders on key climate-related topics
- ▶ Schemes to mobilise finances for climate projects

Implementation, financing and monitoring of CCAP

- ▶ The implementation of CCAP relies on the CAREC institutional framework
 - ▶ to be supervised by the Senior Officials' Meeting (SOM) under the CAREC Ministerial Conference
 - ▶ to integrate climate actions across CAREC Clusters in coordination with sector committees and working groups
 - ▶ to be facilitated by the CAREC Working Group on Climate Change
 - ▶ The CAREC Climate Vision is to establish the CAREC Climate Change Steering Committee with national focal points to oversee climate actions and align strategies across sectors
- ▶ CAREC Climate Change Steering Committee
 - ▶ CAREC national focal points and officials of relevant ministries/agencies

Figure: CAREC 2030 Institutional Framework



CAREC = Central Asia Regional Economic Cooperation, ICT = information and communication technology.
Source: CAREC Secretariat.

Financial resources

- ▶ Fiscal finance for climate as public good
- ▶ Commitments based on New Collective Quantified Goal (NCQG), development partners including MDBs, the Green Climate Fund, etc..
- ▶ Innovative financial solutions to attract private investments including reinsurance and capital markets for regional risk transfer
- ▶ CAREC Climate & Sustainability Project Preparation Fund to support the preparation of bankable regional climate projects

Thank you