

Improving Trade and Technology
Cooperation among Shanghai Cooperation
Organization (SCO) Member Countries:
Suggestions and Way Forward



A Joint Research Report on

Improving Trade and Technology Cooperation among Shanghai Cooperation Organization (SCO) Member Countries: Suggestions and Way Forward

The Report has been Compiled by:

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Pakistan based on contributions by the Members of the

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Acronyms

ADB Asian Development Bank

ASEAN Association of Southeast Asian Nations

AU African Union

BOP Balance of Payment
BRI Belt and Road Initiative
CARs Central Asian Republics
CASA Central Asia-South Asia
CDB China Development Bank
CMR Carriage of Goods by Road
COVID-19 Coronavirus Disease of 2019

EU European Union EV Electric Vehicle

FPS Faster Payment System
FTAs Free Trade Agreements
GCC Gulf Cooperation Council
GDP Gross Domestic Product
FDI Foreign Direct Investment

ICEVs Internal Combustion Engine Vehicles

IMF International Monetary Fund

INSTC International North-South Transport Corridor

KTI Kazakhstan-Turkmenistan-Iran LFP Labor Force participation LPI Logistic Performance Index

NAFTA North American Free Trade Agreement

PBOC People's Bank of China
R&D Research and Development
SBP State Bank of Pakistan

SCO IBC Shanghai Cooperation Organization Interbank Union

TAPI Turkmenistan-Afghanistan-Pakistan-India

TAR Trans-Asian Railway Network
TIR Transport Internationaux Routiers

SAARC South Asian Association for Regional Cooperation

SCO Shanghai Cooperation Organization

USD United States Dollar UN United Nation

UNASUR Union of South American Nations

WDI World Bank Indicators

EXECUTIVE SUMMARY

This report presents a detailed analysis of economic and technological cooperation between the Shanghai Cooperation Organization (SCO) member states to improve trade, financial integration, and technology adoption, particularly for electric vehicle technology, across all Member States. China, Russia, Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan formed the SCO in 2001, Pakistan and India joined in 2017; Iran in 2023, and Belarus in 2024. The main goal of the SCO is to help member governments with a range of economic, political, and technological issues. It focuses primarily on security, cooperation, economic development, and cultural transformation. This report presents policy recommendations to drive growth and discusses important areas of economic integration.

Key themes and findings

1. Trade cooperation and agreements

- Trade inside the SCO region has grown steadily, with intra-regional trade share rising from 5.4% in 2001 to 17.5% in 2020. Nonetheless, member states continue to face numerous difficulties concerning customs laws, transportation infrastructure, and trade policy.
- ♦ To fully realize the potential of intra-SCO trade, the recommendations simply streamline customs procedures.
- ♦ Certain outreach initiatives are crucial to sensitize business community for joint ventures and trade promotion.
- A coordinated strategy is needed, with the SCO secretariat playing a central role, in facilitating the development and implementation of solutions to various trade challenges, i.e., these include infrastructural bottlenecks, bureaucratic delays, funding constraints, and variations in trade regulations.
- ♦ Lastly, to unlock the full economic potential of FTAs, it is crucial to address geopolitical uncertainties and historical political tensions.

2. Financial market integration

The report highlights the necessity of financial market integration in promoting and facilitating international trade and investment. Highlighted examples are China's initiative, which includes currency swaps and digital finance solutions, and the role of the SCO Interbank Union (IBC).

- ♦ To address these issues, the report suggests stepping up collaboration on financial reforms, using digital payment methods, and gradually switching from US dollars to national currencies.
- SCO countries must focus on developing common standards and coordinating financial regulations to facilitate cross-border transactions and financial operations. This may include alignment of regulatory frameworks for digital currencies, and block-chain technologies to modernize cross-border payments and reduce reliance on traditional banking systems. Additionally, establishing policy-driven mechanisms for information sharing and regulatory cooperation among financial specialists in SCO countries is needed. The countries must effectively address financial complexity issues such as informal money transfer payment challenges, and lack of financial ease for businesses.

3. Transition to electric vehicles (EVs)

- The SCO member nations are implementing EV technology at varying rates. China is the world leader in production and exports. China's advancements in electric vehicle production offer other members substantial opportunities to collaborate on joint research and investment in technology.
- While some nations, like Pakistan, Iran, and others, are still struggling with issues like high upfront costs and inadequate charging infrastructure, other nations, including India, Kazakhstan, Russia and many others have also developed measures to advance and encourage EV adoption, i.e., subsidies for creating 'quick' charging stations, tax benefits, free parking, developing charging infrastructure, etc.
- The report suggests coordinating policy for collaborative ventures for manufacturing and infrastructure development, as well as technology transfer for EVs. This cooperation on EV production and charging infrastructure will help the area shift to more environmentally friendly modes of transportation.

4. Logistics and infrastructure development

♦ Economic integration requires an improved and efficient logistical infrastructure. China has initiated a number of projects under the Belt and Road Initiative (BRI) in a number of countries to promote sectoral infrastructure, i.e., road networking, energy, agricultural markets, etc. The Turkmenistan-Afghanistan-Pakistan- India (TAPI) pipeline, and the China-Europe Railway Express, North-South International Transport Corridor developing by Russia, Iran, India and other SCO economies are among the major transportation projects highlighted in the report. These projects are expected to reduce shipping times and increase trade.

- However, because they rely mostly on road transportation, landlocked nations like Kyrgyz Republic and Uzbekistan have serious logistical difficulties.
- ♦ Similarly, India has developed connectivity initiatives like INSTC and Sagar Mala Project.
- The report recommends to improve financing of infrastructure projects, such as modernization of existing facilities and development of new ones, and cooperation in this sphere to enhance commerce and upgrade transportation corridors to create multi-model logistic hubs. Increasing landlocked nations' connection is a top priority.

5. Macroeconomic profile

- ♦ The macroeconomic profile of each member state exhibits notable variations, with China, India, and Russia functioning as prominent economic powers and Central Asian nations mostly depending on the export of natural resources. Numerous variables, including as labor force participation, population growth, and trade dynamics, vary throughout the member states. The analysis demonstrates how crucial it is for member states to diversify their economies.
- Macroeconomic data highlights chances for member states to work together to enhance trade while also highlighting differences in trade volume, banking systems, and technological improvements.

Increased regional cooperation, better trade facilitation, and improved financial and technological integration could unlock the potential of the SCO. With a little tweak and the removal of current obstacles, the SCO can evolve into a significant driver of regional economic development, technical innovation, and environmental sustainability. The report's recommendations serve as SCO's roadmap for improving capabilities and fostering innovation. The SCO can ensure the long-term progress and prosperity of the region by promoting sustainable development in all of its member nations through concerted action.

1. INTRODUCTION



1.1. SCO: An Overview

Established in 2001, The Shanghai Cooperation Organization (SCO) focuses on fostering cooperation among its member states. China, Russia, Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan formed the SCO. Later, in 2017, it grew to include Pakistan and India. Iran attained full membership status in 2023, followed by Belarus in 2024. Afghanistan and Mongolia are observers, and the other 14 nations are dialogue partners (Table 1).

Table 1: Member, Observer and Dialogue Partners

Member States	Observers	Dialogue Partners
China (2001)	Mongolia (2004)	Sri Lanka (2010)
Kazakhstan (2001)	Afghanistan (2012)	Turkey (2013)
Kyrgyz Republic (2001)		Cambodia (2015)
Russia (2001)		Azerbaijan (2016)
Tajikistan (2001)		Armenia (2016)
Uzbekistan (2001)		Nepal (2016)
India (2017)		Saudi Arabia (2022)
Pakistan (2017)		Qatar (2022)
Iran (2023)		Egypt (2022)
Belarus (2024)		United Arab Emirates (2023)
		Kuwait (2023)
		Bahrain (2023)
		Myanmar (2023)
		Maldives (2023)

Source: Shanghai Cooperation Organization Secretariat.

The main pillars of SCO are security, economic cooperation, security, and cultural and people-to-people exchange. As an important underpinning for the SCO's steady development, economic cooperation has been playing a vital role in building economic ties across the region aimed at common prosperity, which continuously adds endogenous momentum to regional cooperation and becomes a model of cooperation among emerging economies (Dexue, 2021).

The broader objectives of the SCO forum include cooperation among the member states in such spheres as politics, trade, economy, science and technology, culture, education, energy, transport, tourism, environmental protection, etc. Trade is the cornerstone of all cooperation that serves as a synergy to such forums. For example, the European Union (EU) was developed in such a way that now it has been serving as a single market—enabling most goods, services, money, and

to move freely throughout most of the continent. A common currency is used by several member countries along with unified telephone and digital services.

The Shanghai spirit serves as the foundation of the SCO, defined by the principles of the 5Cs: 'Cooperation,' 'Confidence,' 'Coexistence,' 'Communication,' and 'Common interests' (Kavalski, 2016). The organization aims to promote shared interests, ensuring that all members benefit. The Shanghai spirit refers to a framework encompassing five key perspectives: innovative, coordinated, green, open, and shared development; common, comprehensive, cooperative, and sustainable security; open, inclusive, mutually beneficial, and win-win cooperation; equality, mutual learning, dialogue, and inclusive civilization; and extensive consultation, joint contribution, and shared benefits in global governance. The SCO community envisioned as a shared future based on these five views, consists of a five-in-one community: an economic community fostering common prosperity; a security community ensuring universal security; a peace community promoting lasting peace; a civilization community advocating for an open and inclusive world; and an ecological community striving for a clean and beautiful environment (Xue and Makengo, 2021).

Table 2: Macroeconomic Profile of SCO Members, 2023

Country	GDP, Current Prices (Values in USD Bn)	Population (in Mn)	SCO Members Total Trade (Values in USD Bn)
Belarus	71.86	9.18	24.29
India	3572.08	1428.63	1103.41
Iran	403.53	86.55	40.59
Kazakhstan	260.51	19.86	139.89
China	17662.04	1411.40	5948.03
Kyrgyz Republic	12.78	6.93	15.65
Pakistan	338.24	231.55	79.31
Russia	1997.03	146.2	616.24
Tajikistan	11.86	10.01	6.99
Uzbekistan	90.88	36.03	68.07

Source: IMF World Economic Outlook, WITS, ITC Trade Map

With 42% of the world's population this region is the most populated in the globe and has a combined GDP of approximately 25 tn. US dollars, or 23% of the global GDP (2023). It is also home to 25% of the world's oil reserves, 30% of its gas reserves, and 50% of the global proven uranium reserves are also found in the SCO's member nations (Fayyaz, 2019). Additionally, every member state produces a substantial amount of food.

Table 3: A Comparison of SCO with other Forums

Cooperation Forums	Area (million square km)
Shanghai Cooperation Organization (SCO)	30.18
European Union (EU)	4.23
African Union (AU)	29.94
Association of Southeast Asian Nations (ASEAN)	4.50
South Asian Association for Regional Cooperation (SAARC)	5.10
North American Free Trade Agreement (NAFTA)	21.50
Gulf Cooperation Council (GCC)	2.60
Union of South American Nations (UNASUR)	17.84

Regional Cooperation: To reinforce the legal foundation for regional economic cooperation, the member countries signed several agreements, i.e.:, the Program of Multilateral Trade and Economic Cooperation (2003), the Action Plan for the Implementation of the Program of Multilateral Trade and Economic Cooperation (2004), the Joint Initiative on Accelerated Multilateral Economic Cooperation to Overcome the Global Financial and Economic Crisis Impacts and Ensure Further Economic Development (2009), the SCO Mid-Term Development Strategy (2012), the SCO Development Strategy until 2025 (2015), the List of Measures for Further Development of Project Activities within the SCO for the Period 2017-2021 (2016), a new version of the Program of Multilateral Trade and Economic Cooperation (2019), and the Action Plan for 2021-2025 on the Implementation of the Program for Multilateral Trade and Economic Cooperation (2020). Various other agreements cover many fields, i.e., customs, finance, e-commerce, transportation, energy, tourism, agriculture, and ecological and environmental protection.

Investment Cooperation: Regional trade saw a modest decrease in 2020 as a result of the COVID-19 pandemic, but it rebounded and continued to rise annually after that. E-commerce across borders has increased. There are now a lot of active e-commerce forums, such as Alibaba, Ali Express, and Amazon. Between 2001 and 2019, foreign direct investment (FDI) climbed from US\$52.62 billion to US\$231.56 billion. One of the main sources of FDI for Pakistan, Kazakhstan, and Uzbekistan is China. Similarly, China, India, and Russia are Iran's top sources of FDI inflows. Through its Belt and Road Initiative (BRI), China has been investing in several nations on a range of projects, including manufacturing, transportation, energy, and construction.

The development of transportation networks like the China-Europe Railway Express and cross-border highways has significantly reduced freight shipping times. Energy infrastructure projects, such as the Central Asian natural gas pipelines and the China-Russia east-route natural gas pipeline, have further deepened economic ties within the region. The China-Kyrgyzstan-Uzbekistan Highway has become a major unimpeded artery for international transport.

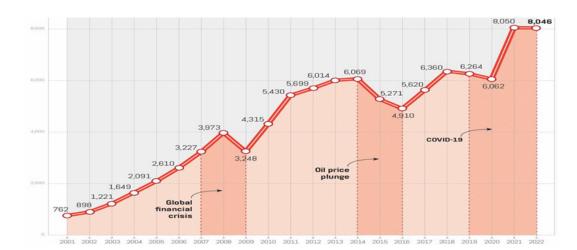


Figure 1: Global Trade Value of SCO Member Countries (USD Billion)

* India and Pakistan became full members of SCO in 2017 but their global trade values have been included

Source: China's General Administration of Customs, Trade Map¹

Financial Cooperation: The signing of the Agreement on Interbank Cooperation (Consortium) in 2005 marked the formal establishment of the SCO Interbank Union. China is the major provider of preferential loans for SCO states. The concessional loans serve a number of projects among the member states to boost sectoral development. Efforts are ongoing to promote currency swaps and local currency settlement. The 2020 Moscow Declaration reiterated support for expanding the practice of national currency payments

There is still a long way to go to overcome a number of challenges. For example, many SCO member states are involved in multiple regional and global economic processes, which sometimes dilute the focus and resources dedicated to intra-SCO economic cooperation. Differences in political and strategic orientations, coupled with economic disparities among member states, have led to challenges in reaching a consensus on long-term goals for economic cooperation. Despite progress in economic cooperation, various member states still face challenges related to slow economic structural adjustments.



1.2. Objectives of the Report

The joint research by the Consortium of Economic Analytic Centers would provide recommendations to the SCO Secretariat in boosting economic cooperation and mutual learning through joint research and studies. It is an opportunity for the SCO's member country's Economic thinktanks to build cross-cutting research on the core economic issues that would ultimately guide the SCO Secretariat and Councils of Heads of Governments. It would also help us to manage certain bilateral research through joint studies and projects.

 $^{^1} https://news.cgtn.com/news/2023-07-03/Chart-of-the-Day-SCO-s-share-in-global-trade-rises-11825 waj JoQ/index. html$

Economic integration is a form of coordination among SCO Member States in which barriers to trade are eliminated. The barriers could be certain challenges to implement trade agreements, non-competitive financial markets, and poor logistic facilities. All this is crucial for economic integration as it affects various aspects of economic performance, particularly by increasing investment rates, facilitating technology transfers, promoting trade openness, and stimulating the development of domestic financial systems and economic growth. At the same time, financial integration is recognized as a potential source of macroeconomic stability.

Almost all SCO Member States have joined key international transport agreements and conventions, including the UN TIR Convention. Efforts are underway to promote the digitalization of documents and procedures, such as e-TIR and e-CMR, to enhance both intra-regional and inter-regional connectivity. Some of the countries have received massive foreign direct investment, especially on infrastructure projects. The analysis may cover certain improvements in in infrastructure (i.e., road, rail, maritime, ports, civil aviation) along with measure taken to overcome logistic issues through improvement in port handling and overcoming non-tariff barriers. Such investment in improving infrastructure and provision of digital services for cross border connectivity in terms of share of foreign direct investment and also expenditures by the respective governments would boost trade.

This report mainly focuses on following broader research themes:

- Macroeconomic data on core indicators, i.e., GDP, per capita income, tax-GDP ratio, exports, imports, labor market, etc.
- Review of SCO Trade Agreements –the efforts by member countries to promote trade among the member countries as well as the barriers faced by member countries for trade promotion among the SCO member countries.
- How can better financial markets integration help improve mutual trade among member countries?
- Battling climate change related challenges through increased trade cooperation in Electric Vehicle (EV) technology development and adoption.
- 5 Cooperation in cross-border infrastructural projects and constraints to infrastructural development in the SCO region.



1.3. Structure of the Report

This report is organized in 6 sections. Section 1 provided an introduction to the report. Section 2 presents a summary of the macroeconomic data and Section 3 reviews SCO trade agreements. The details on financial integration among the SCO member states are placed in Section 4. Section 5 deals with cross-border infrastructure and logistic arrangements followed by Section 6 covering electric vehicle (EV) technology and its development. The report delineates policy implications.

2. SUMMARY OF MACROECONOMIC DATA



2.1. Population of SCO Countries

According to the SCO member countries' population profiles, China and India have the biggest populations, with 1410 and 1428 million people, respectively. Next, with populations of 143 and 240 million respectively, are Russia and Pakistan. Kyrgyz Republic and Belarus have the lowest population figures. The population statistics capturing the variation in population density among the SCO member nations is represented in Figure 2.

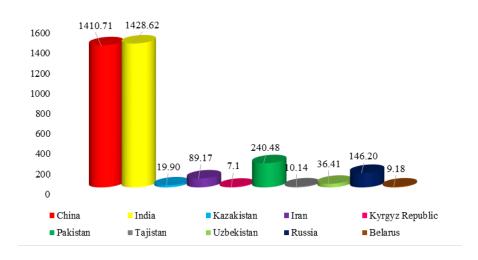


Figure 2: Population (in Millions)-2023

Source: World Bank Data (WDI).



2.2. GDP Growth

Figure 3 displays the annual GDP growth percentage of SCO members. The fluctuations in GDP growth rate over time are indicative of inconsistent economic performances pertaining from regional issues as well as global financial crises and economic cycles. A notable decline in 2009 is evident in nearly every nation, coinciding with the global financial crisis.

In addition, China consistently outperforms other nations in terms of growth, continuing to expand even in the face of global downturns. Following China, India exhibits the strongest growth, though with notable fluctuations, particularly between 2008–2009 and 2019–20. In a similar vein, we can observe all trends of fluctuating economic growth among the SCO member countries. All countries were visibly impacted by the COVID-19 pandemic and the worldwide financial crisis.

20 15 10 5 0 -10 China India Iran Kyrgyz Republic Pakistan -Tajikstan Uzbekistan Kyrgyz Belarus Russia

Figure 3: GDP growth rate (annual %) of SCO member countries

Source: World Bank Data (WDI)



2.3. Per Capita GDP

Figure 4 displays the GDP per capita of 2023 in current US dollars. Russia is one of the high-income nations, with the highest GDP per person in the world at 13817 US dollars. Next, Kazakhstan, which is near Russia and has a GDP per capita of 13136 US dollars, is followed by China and Uzbekistan, which also have high GDP per capita. We might categorize Iran and Belarus as middle-income nations. Next are low-income nations like Pakistan, India, and so on. The graph illustrates the notable differences in GDP per capita amongst the SCO member nations.

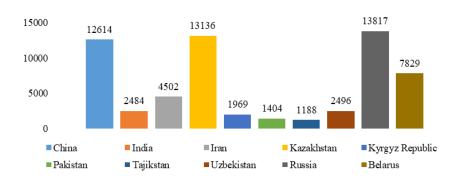


Figure 4: GDP per capita (current US\$) of SCO member countries in

Source: World Bank Data (WDI).



2.4. Saving Rates

The gross savings as a % of GDP for the SCO member states. China consistently has the greatest saving rate among all nations, hovering around 40%, reaching a peak of almost 50% in 2007–2008. China's robust economic growth and saving culture, along with the country's high saving rate, have greatly influenced the country's investment-driven economic model. India has a comparatively high saving rate, peaking at 37% in 2007 before steadily falling over the following years to hover around 30%. Kazakhstan's saving rate is 25 to 30 percent, with irregular variations. Since Kazakhstan's saving rate is indicative of a resource-based economy, it is likely impacted by changes in oil prices and global economic conditions. The saving rate of the Kyrgyz Republic is significantly high, peaking at 29.3% in 2020.

60.0

50.0 China, 46.1

40.0

30.0

India, 29.9 Kazakhstan, 28.1

Equation 10.0

Kyrgyz Republic Pakistan, 10.3

7.0

Russia, 31.8

Belarus, 25.0

Figure 5: Gross Saving (% of GDP)-2022

Source: World Bank Data (WDI).

Pakistan continues to have one of the lowest rates of saving, averaging between 10% and 15%. Tajikistan exhibits strong reflection, reaching a notable peak in 2022 at 50.2%, suggesting a dramatic shift in policy or an economic adjustment. Iran's data for savings in the economy was unavailable. Figure 5 illustrates the latest gross savings profile of these nations using data from 2022. Tajikistan is at the top with 50.2%, followed by China at 46.1%, and so on.



2.5. Overseas Remittances

For many developing economies, overseas remittances are money sent back home by expatriates, it represents a sizable source of revenue. These inflows have been vital for the SCO countries in supporting foreign exchange reserves, poverty reduction, and economic stability. **Table 4** shows that India has been receiving the highest remittances as compared to all other SCO member countries. China & Pakistan are on the second and the third positions, respectively. Whereas, other countries like Iran, Kyrgyz Republic, Tajikistan and Kazakhstan are receiving low remittances. Although some countries may have a lower volume of remittances, but amount could have a significant share in their national GDP.

Table 4: Overseas Remittances Received (Million US\$), 2023

Country	Remittances, (Million US\$), 2023	Country	Remittances, (Million US\$), 2023
Belarus	1,260	Tajikistan	4,634
China	49,500	Uzbekistan	16,100
Kazakhstan	440	India	125,000
Kyrgyz Republic	2,600	Pakistan	26,558
Russia	6,800	Iran	-

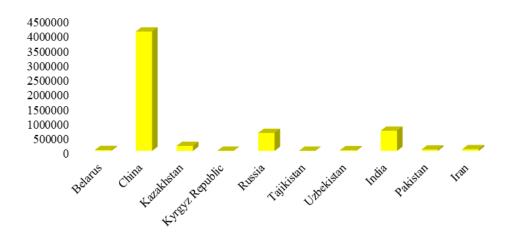
Source: World Bank Data (WDI)



2.6. Foreign Direct Investment

Figure 6 illustrates how FDI patterns vary throughout nations. Overall, China is the biggest recipient of foreign direct investment (FDI) during the period from 2001 to 2020 that resulted in quick industrialization, innovation and economic growth. Both India and Russia also received a significant amount of FDI during the period.

Figure 6: Total FDI (2000 to 2020) (BoP, Million US\$)



Source: World Bank Data (WDI).



2.7. Trade Deficit

Global shocks like COVID-19 and the conflict between Russia and Ukraine have recently affected the region's whole economic pattern because Kazakhstan and Russia are significant energy exporters, particularly to China, India, and Pakistan. We created an area chart using import and export data from the WDI for the preceding 20 years to provide a quick overview of the trade deficit of the SCO countries. The Kyrgyz Republic has the largest trade deficit (export-import) according to the area chart. In terms of the largest trade deficit among SCO members, Tajikistan is ranked second, while Uzbekistan and Pakistan rank third and fourth, respectively. Additionally, because their exports exceed their imports, Kazakhstan and Russia have the most significant trade surpluses, China and Iran also experience positive trade balances.

10
5
0
-5
Residential 9.2

1.8

Residential 1.9
-10
-15
-20
-25
-30
-28.6
-28.9

Figure 7: Average Trade Deficit (% of GDP)

Source: World Bank Data (2000-2023), WDI



2.8. Inflation

Using Inflation, consumer prices (annual %) data, Table 5 depicts the Average Inflation (2000-2023) for each of the SCO's member nations. Belarus and Iran have had the largest average inflation according to the statistics, while China and India have the lowest average inflation as compared to all other countries.

Table 5: Average Inflation (2000-2023)

Country	Average Inflation	Country	Average Inflation
Belarus	25.2	Tajikistan	11.2
China	2.1	Uzbekistan	10.2
Kazakhstan	8.8	India	6.1
Krygyz Republic	7.7	Pakistan	9.4
Russia	9.9	Iran	21.5

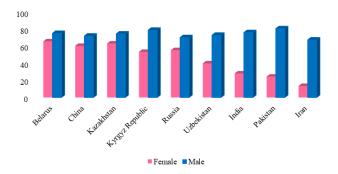
Source: World Bank Data (WDI)



2.9. Labor Force Participation

Figure 8 shows the ratio of males and females among the employed population. Here we can see that female participation in the labor force in all countries is less as compared to male due to many factors. Figure 8 also shows that the proportion of female in the employed population is quite low for countries like Iran, Pakistan and India whereas other countries like Russia, Kazakhstan, China, and Belarus have high participation of females in the labor force. The graph shows that there is a huge difference in labor force participation for males and females in countries like India, Pakistan, Iran and Uzbekistan as there's a huge male proportion in these countries but the proportion of females is quite low.

Figure 8: Labor Force Participation Rate by Gender, 2022



Source: World Bank Data (WDI)

3. A Review of SCO Trade Agreements

Cooperation among SCO member states is on an upward spiral as several strategic projects are underway to deal with acute infrastructural and energy shortages while attempting to foster regional integration. China's One Belt One Road initiative is the driving force for regional integration and cooperation, particularly among various SCO member states too. In this regard, the Central Asia-South Asia Electricity Transmission (CASA-1000)² will establish a power transmission connecting the Kyrgyz Republic, Tajikistan, Afghanistan, and Pakistan. Likewise, the Turkmenistan-Afghanistan-Pakistan (TAP) will further improve the energy requirements. In addition, the Turkmenistan-Afghanistan-Pakistan-India (TAPI)³ gas pipelines aim to transport natural gas from Turkmenistan through Afghanistan and Pakistan to India, while the Iran-Pakistan gas pipeline project will supply natural gas from Iran to Pakistan (Khetran, 2019). Besides, the railway corridor project with Uzbekistan will link Termez and Peshawar via Kabul (Ehsan, 2023). Despite their potential, these projects face substantial challenges, such as political instability, insecurity, technical difficulties, and financial constraints, which impede their completion and operationalization (Khan, 2024; Ehsan, 2023; Ahmed, Ahmed, & Bhatnagar, 2019; Raza, 2019). To overcome these bottlenecks and ensure the success of these infrastructure initiatives, strengthening institutional cooperation and engaging specialized ministries and working groups within the SCO is imperative. Improving trade cooperation through new or broadening of existing trade agreements is a necessary step.



3.1. SCO Trade Agreements

Trade agreements within the SCO are fundamental for deepening economic cooperation among member states. These arrangements are pivotal not only in strengthening trade ties and driving infrastructure development but also effectively utilizing the region's diverse economic advantage, from natural resources to labor and manufacturing and technological capacities. However, to fully harness the potential of these agreements and ensure sustained trade growth, it is crucial to overcome existing roadblocks, such as infrastructural bottlenecks, geopolitical uncertainties, and the need for harmonized trade regulations. By strategically focusing on these areas, the SCO can further strengthen regional trade integration and realize the full economic potential of its member states.

The SCO countries have pursued bilateral and plurilateral agreements to diversify trade and facilitate economic integration. These Regional Trade Agreements (RTAs)⁴ are vital for promoting trade creation, as evidenced by the significant increase since the 1990s. By 2023, more than 366 RTAs were in force globally (De Silva & Lee, 2018; WTO, n.d.). Within the SCO, most members states are part of the World Trade Organization (WTO), except for Belarus, Iran, and Uzbekistan, which hold observer status. In the SCO region,

² https://www.casa-1000.org/

³ https://www.adb.org/projects/44463-013/main

⁴RTAs range from partial scope agreements (PSAs), which reduce tariffs on specific products, to free trade agreements (FTAs) that broadly lower trade barriers. Customs unions add free internal trade and common external tariffs, while deeper integration may include free movement of capital and labor and common economic policies.

Central Asian countries have formed most of their bilateral trade agreements with Russia and neighboring states reflecting the significance of geographical proximity in trade relationships. Other bilateral arrangements —such as those between Tajikistan and Belarus, Pakistan and China, and Pakistan and Uzbekistan (Table 6).

Table 6: Bilateral Regional Trade Agreements

Agreement	Type	Agreement	Туре
Belarus–Russia (1993)	FTA	Tajikistan–Belarus (1998) *	FTA
Kazakhstan–Russia (1993)	FTA	Uzbekistan-Kazakhstan (1998)*	FTA
Kyrgyz Republic –Russia (1993)	FTA	Kyrgyz Republic –Uzbekistan (1998)	FTA
Uzbekistan–Russia (1993)	FTA	Kyrgyz Republic –Tajikistan (2006) *	FTA
Tajikistan-Russia (1993)	FTA	Pakistan–China (2020)	FTA
Kyrgyz Republic –Kazakhstan (1995)	FTA	Pakistan-Uzbekistan (2023) *	PTA
Tajikistan–Uzbekistan (1996) *	FTA		

Note: The information was retrieved from the World Trade Organization and the Asian Development Bank websites, Ministry of Commerce, Pakistan. The trade agreements are tabulated in ascending order of the year of entry into force.

Table 7: Plurilateral Regional Trade Agreements

Agreement	Туре	Signatories
Asia-Pacific Trade Agreement (APTA, 1976)		Bangladesh, China, India, South Korea, Laos, Sri Lanka
South Asian Free Trade Agreement (SAFTA) (2006)	FTA	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
Economic Cooperation Organization Trade Agreement (ECOTA 2008)		Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Turkey, Turkmenistan, Uzbekistan
Preferential Tariff Arrange- ment-Group of Eight Developing Countries (PTAD8 2011)	FTA	Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, Turkey
Commonwealth of Independent States (CIS-FTA 2012)	FTA	Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Ukraine, Uzbekistan
Eurasian Economic Union (EAEU 2015)		Armenia, Belarus, Kazakhstan, Kyrgyz Republic, Russian Federation

Note: World Trade Organization and Asian Development Bank RTA database. The agreements are tabulated in ascending order based on the year of initial entry into force.

^{*}Not notified to the WTO

The SCO member states participate in various regional trade agreements as well, such as the EAEU, CIS-FTA, ECOTA, and SAFTA (Table 7). The EAEU, a Customs Union established in 2015 by several post-Soviet states, includes key SCO members like Russia, Kazakhstan, Belarus, and the Kyrgyz Republic. Member states within the EAEU benefit from the free movement of goods, services, capital, and labor, with coordinated public policies ensuring smooth integration. Likewise, the CIS established a free trade area for goods in eleven states in 2012, and in 2023, it signed an agreement on free trade in services and investment, which Russia ratified in June 2024⁵.

In addition to these multilateral agreements, SCO member states have also formed bilateral agreements with other economic blocks (Table 8). Notably, the EAEU signed an FTA with Iran in 2023 and an Agreement on Economic and Trade Cooperation with China in 2018. Furthermore, the EAEU collaborates with China on the Belt and Road Initiative (BRI), further deepening economic cooperation between these regions. The EAEU aims to strengthen its collaboration with the SCO by proposing initiatives such as a universal payment system and independent global institutions to foster greater integration (Jütten & Falkenberg, 2024).

Table 8: Bilateral Agreements Between a Country and a Bloc

Agreement	Туре	Signatories
ASEAN–China (2005)	FTA & EIA	China with ASEAN members (Brunei, Myanmar, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Vietnam, Thailand)
ASEAN–India (2010)	FTA & EIA	India with ASEAN members
EAEU–China (2018) non- preferential trade agreement		China with EAEU members
EAEU-Iran (2023)	FTA	Iran with EAEU members

Note: The information was from the World Trade Organization and the Asian Development Bank

Furthermore, the two SCO members, China and India, have established strategic agreements with ASEAN, with China signing an agreement in 2005 and India in 2010, thereby promoting economic integration beyond the SCO region. Additionally, India, China, Russia and more recently, Iran are members of BRICS, an intergovernmental organization that promotes economic cooperation among emerging economies (Jütten & Falkenberg, 2024). In addition to the agreements already implemented by SCO countries, several other bilateral and plurilateral agreements are currently under consultation and negotiation. These ongoing discussions emphasize the member states' strategic efforts to improve economic ties within the SCO bloc.

Similarly, Pakistan has actively pursued trade pacts to facilitate trade and strengthen political and economic relations among SCO members. According to

⁵ https://e-cis.info/

the Asian Development Bank (2024), Pakistan currently has 35 trade agreements; 11 are signed and in effect, two have been signed but are not yet in effect, six are under negotiation, and 16 are in the study phase. In line with these efforts, Pakistan signed the Uzbekistan-Pakistan Preferential Trade Agreement (PTA) in 2023 to reduce tariffs and non-tariff barriers (Ministry of Commerce, 2024). Similarly, with its northern neighbor China, the initial Free Trade Agreement (CPFTA), signed in 2007, was followed by the Agreement on Trade in Services, which came into force in 2009. However, concerns over substantial trade deficits led to the negotiation of CPFTA-II, which entered into force in 2020. This revised agreement introduced improvements in the tariff structure, thereby providing Pakistan with better market access compared to the previous version (Afraz & Mukhtar, 2019). Furthermore, in its strategic positioning as a trade, transit, and transshipment hub, Pakistan has signed several bilateral transit trade agreements, including with Afghanistan in 2010, Uzbekistan in 2021, and Tajikistan in 2022 (Ministry of Commerce, 2024). These initiatives aim to harmonize transport regulations and streamline customs transit, thereby making trade more predictable. These initiatives are crucial for the region that heavily depends on land transportation through neighboring territories. Consequently, they can also better link the region to external markets.

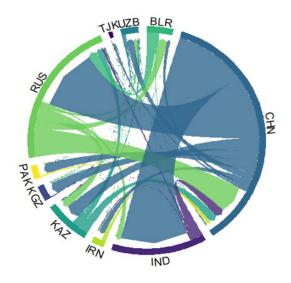
In addition to these initiatives, Pakistan has demonstrated its commitment to regional economic integration by participating in various plurilateral arrangements involving SCO members, such as APTA, SAFTA, and ECOTA. This participation reflects its intent to advance economic cooperation across East, Central, and South Asia.

Alongside the agreements that Pakistan has already put into effect, several other arrangements are in various stages of consultation and negotiation. These include the Pakistan-EEU FTA, the ASEAN-Pakistan FTA, the Pakistan-Kazakhstan PTA, the Pakistan-Tajikistan PTA, and the Afghanistan-Pakistan FTA. Furthermore, negotiations have been initiated for the Pakistan-Iran FTA. These ongoing consultations and negotiations emphasize Pakistan's strategic efforts to strengthen economic ties with key regional partners within the SCO.



3.2. Outlook for SCO Trade

Figure 9: Overview of Intra-SCO Trade



Source: PIDE's calculation based on the Direction of Trade database, IMF (2023).

Figure 9 provides a detailed overview of intra-SCO trade, indicating China's predominant role in regional trade flows. China's influence on regional trade is substantial, with its exports to SCO member countries surpassing those of other member states. Notably, China's exports to India are valued at over US\$118.6 billion, while exports to Russia total over \$111.4 billion. Trade with Kazakhstan, the Kyrgyz Republic, and Pakistan amounts to roughly \$24.8 billion, \$20.0 billion, and \$17.6 billion, respectively. This significant trade turnover indicates China's strategic importance, accounting for more than half of the total intra-bloc trade.

India's bilateral trade is heavily skewed in favor of China, with India exporting \$16.3 billion to China while importing a considerably larger \$118.6 billion. The Indian trade with Russia was \$65.7 in 2023/24, comprising India's exports worth US\$4.26 billion and imports from Russia amounting to US\$61.44 billion. However, trade with other SCO countries remains relatively modest. Pakistan's exports are predominantly directed towards China, accounting for roughly \$2.7 billion, reflecting a strong economic tie with its northern neighbor. Pakistan also exports to other SCO countries, though volumes are smaller, with exports to Kazakhstan, Kyrgyz Republic, and Uzbekistan each below \$200 million.

Trade within the CARs shows robust trade turnover, especially among geographically proximate countries. Kazakhstan is a key player, with exports of nearly \$9.8 billion to Russia and \$3.1 billion to Uzbekistan. Uzbekistan maintains significant trade relations with Kazakhstan and Russia, exporting \$1.1 billion and \$2.3 billion, respectively. Kyrgyz Republic has strong trade ties with Russia, Kazakhstan, and Uzbekistan, with exports totaling \$748.8 million, \$455.7 million, and \$290.8 million, respectively. Tajikistan's exports are more modest, amounting

to \$336.6 million to Kazakhstan and \$150.7 million to Uzbekistan. Furthermore, Iran has a balanced trade profile with several key partners, exporting over \$4.3 billion to China, followed by \$891.0 million to Pakistan, \$629.8 million to India, and \$580.7 million to Russia. Belarus, specifically in its trade with Russia, stems from shared historical and geopolitical ties.

Overall, China dominating the intra-SCO trade, serving as a top exporter and a key destination for exports from other member countries. While geographic proximity facilitates trade, particularly within the CARs, variations in trade volumes between SCO countries are also influenced by economic strategies and political factors. Pakistan's trade with the SCO is substantial, however, it is heavily concentrated with China. Therefore, diversifying export markets, particularly improving trade turnover with CARs, has significant potential for country export growth.

Concerning trade facilitation, Figure 10 illustrate the variations in border and documentary compliance costs and times among the SCO countries, emphasizing the logistical challenges faced in trade. Pakistan, for example, has documentary compliance costs and a border compliance cost close to or above regional averages. As for Russia the last available data in WDI is for 2019, it shows a lower documentary compliance cost; however, in 2019 Russian exporters faced a significantly higher border compliance cost (580 US\$) and a border compliance time of 66 hours, showing logistical challenges. Uzbekistan and Kazakhstan have notably high compliance costs and times, particularly in Kazakhstan, where documentary compliance takes 128 hours—pointing to substantial delays.

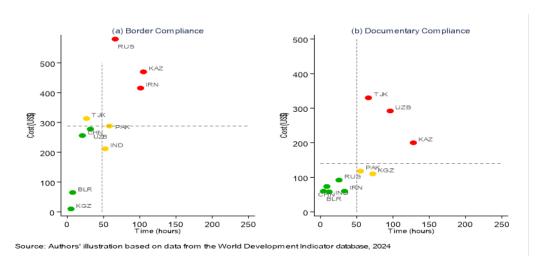


Figure 10: Export process efficiency across SCO countries

In the CARs region, the Kyrgyz Republic illustrates efficiency with very low costs and short compliance times, such as a border compliance cost of only 10 US dollar and a time of 5 hours. Similarly, India and China show lower compliance costs and times, with India having the lowest documentary compliance cost at 58 US dollar. Belarus stands out for its efficiency, minimal costs, and shortest compliance times. However, Iran has low documentary compliance costs and faces high border compliance costs and longer times, indicating a room for improvement. Overall, there are significant logistics disparities across these countries, with some showing efficient processes and others facing substantial logistical roadblocks. This warrants a targeted policy intervention to streamline compliance procedures, reduce costs, and improve regional trade efficiency.

4. INTEGRATION OF FINANCIAL MARKETS

As the global economy continues to integrate, the importance of financial integration within the SCO countries has increased as well. Economic integration is a key mechanism for encouraging cooperation among nation states by eliminating barriers to trade thereby, creating more interconnected and efficient markets. Within this framework, financial integration stands out as a vital element, influencing various aspects of economic performance. By enhancing investment rates, facilitating technology transfers, promoting trade openness, and stimulating the development of domestic financial systems, financial integration serves as the foundation for sustained economic growth. Although, it also carries the threat for increasing macroeconomic instability if not carefully managed.

For the SCO countries, improving financial integration is not only crucial for economic growth and stability but also for improving the region's ability to bear external financial disruptions. Furthermore, as member states engage in infrastructure projects and trade activities, such as Belt and Road Initiative (BRI), the need for an interconnected financial system becomes more vital.

In Asia, the way toward economic integration has been largely driven by market forces. The region's efforts to deepen financial integration commenced in the 1990s, gaining significant impetus following the financial crisis of 1997-98. This crisis underscored the critical need for stronger financial linkages and cooperation to safeguard against future economic shocks. Financial integration within the region is seen as a progressive step toward broader economic integration, encompassing the integration of goods, services, labor markets, and monetary systems.

This section pursues to assess the current state of financial integration among SCO countries, evaluating the availability of financial services, progress achieved so far, identifying the challenges, and exploring potential opportunities for deep financial cooperation. By examining current state of financial initiatives, their integration and policies, this chapter aims to provide a thorough understanding of the financial setting within the SCO.

4.1. SCO Interbank Union (IBC)



The Shanghai Cooperation Organization Interbank Union (SCO IBC) was established on October 26, 2005, following a decision by the Council of Heads of SCO Member States. This decision aimed to create a mechanism to financially support and service investment projects within the economic area of SCO member countries (Agreement on Interbank Cooperation within the Shanghai Cooperation Organization). The primary objectives of the SCO IBC include organizing funding for investment projects, strengthening collaboration with financial institutions from observer states and partners within the SCO dialogue framework, cooperating with key economic institutions active in the SCO region (such as the SCO Business Council and the Eurasian Development Bank), exchanging expertise, and collaborating in personnel training.

Presence of banks for financial Integration & supporting trade: SCO countries participate in forums such as the SCO Business Council and the SCO Interbank Union which facilitate investment agreements, joint ventures, and discussions on financial regulations and trade facilitation while the SCO Development Bank was established in 2010⁶. Besides, under the SCO Interbank Union; mechanism for financing and banking services in investment projects is organized.

- Member banks: Kazakhstan Development Bank, JSC; RSK Bank, OJSC (Kirgizia); India Infrastructure Finance Company Limited (IIFCL); China Development Bank (CDB); State Development Corporation "VEB. RF"; State Savings Bank of the Republic of Tajikistan "Amonatbonk"; Uzbekistan National Bank for Foreign Economic Affairs; Habib Bank Limited (Islamic Republic of Pakistan).
- ◆ Partner banks: Eurasian Development Bank (2008); Savings Bank Belarusbank, OJSC (2012); Development Bank of Mongolia (2016).



4.2. Banking Services to Traders SCO

For some SCO countries (China, Russia, India) financial institutions and banking mechanisms are well developed while for some countries (Belarus, Iran, Pakistan) financial systems are still in developmental stage and moderately approaching towards financial integration. Banks are providing traders access to banking services, exchange of currency, digital payment facilities etc. However, some countries (Kazakhstan, Uzbekistan) have only recently initiated measures to adopt financial integration. Kyrgyz Republic and Tajikistan have realized the importance of financial integration and are willing to adopt a financial integration system and to form a common financial market.

Shifting to national currencies & reducing reliance on US dollar: The representatives of the leading financial institutions from the Shanghai Cooperation Organization (SCO) member states took part in a roundtable discussion on developing recommendations for the gradual shift to payments in national currencies⁷. Moscow mainly pushed towards trading in respective national currencies as it tries to reduce its reliance on the U.S. dollar and other Western currencies for trade following the imposition of sweeping new Western sanctions following the rise of its conflict with Ukraine.⁸

Informal channels of payments: Financial policies exist and single window platforms are being implemented in member countries to facilitate trade. For a better overview current challenges as reported by (Lebedinskaya et al., 2019⁹; TDAP, 2021¹⁰) include weak current financial mechanisms of the SCO countries: insufficient information and unavailability of financial integrating channels; lack of financial activities regulation. Despite the

⁶ Hooijmaaijers, B. (2021). Understanding Success and Failure in Establishing New Multilateral Development Banks: The SCO Development Bank, the NDB, and the AIIB. Asian Perspective 45(2), 445 467. https://doi.org/10.1353/apr.2021.0008.

⁷ https://www.app.com.pk/global/sco-member-states-discuss-prospects-of-gradual-shift-to-payments-in-national-currencies/

https://www.reuters.com/markets/commodities/china-led-sco-bloc-agrees-expand-trade-national-currencies-2022-09-16/ Lebedinskaya, O. G., Babich, S. G., Karmanov, M. V., & Shituey, S. S. (2019, December). The SCO Financial

Mechanisms: Risk Analysis and Development Prospects. In External Challenges and Risks for Russia in the Context of the World Community's Transition to Polycentrism: Economics, Finance and Business (ICEFB 2019) (pp. 21-24). Atlantis

¹⁰TDAP (2021), Report on PAKISTAN-TAJIKISTAN BUSINESS FORUM & B2B SESSION

large numbers reported by the SCO IBC – 98 bn. US dollar in 2017 of allocated financial resources in the SCO countries, the main share of these resources originates from the China Development Bank.

Informal Channels causing complexity in system: In the SCO countries some informal channels operate outside the formal banking networks, facilitating money transfers based on trust and social networks. Hawala & Hundi are common prevalent informal financial channels. They are widely used due to the low cost, and the anonymity they provide, especially in the states where formal banking infrastructure is underdeveloped or where cross-border transactions are strictly regulated.

These informal channels, on macro level, bring complexity and challenges for financial integration of the SCO countries. As these channels operate outside formal financial systems, they hinder creation of a transparent financial environment within the region. Addressing these challenges requires a multidimensional approach that strengthens formal financial institutions, enhances regulatory contexts, and promotes regional cooperation. The SCO countries cannot move toward an integrated financial system without addressing these issues.

Financial Inclusion: Almost all the SCO countries are expanding their financial services to the lower segments and underprivileged groups, i.e., poor households, women, disabled, etc. India's flagship, Pradhan Mantri Jan Dhan Yojana (PMJDY), launched in 2014, ensures universal banking access with no minimum balance requirements. It provides RuPay debit cards with accident insurance, financial literacy programs, and overdraft facilities. PMJDY integrates social security through schemes like Pradhan Mantri Suraksha Bima Yojana (PMSBY) for accident insurance, Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) for life insurance, and Atal Pension Yojana (APY) for pensions, supporting unorganized sector workers. Similarly, the Benazir Income Support Programme (BISP) in Pakistan disbursed payment to 9.3 million poor women through biometric verification system (BVS).



4.3. Foreign Policy and Economic Financial Prosperity

Economic prosperity is an important motive for every nation and economic ties are closely linked with foreign policy.

Attracting FDI: Creating a peaceful and conducive environment for foreign firms is important to attract Foreign Direct Investment (FDI). The SCO can be used as the forum for improving diplomatic ties among member countries with the aim of enhancing trade relationships among all SCO countries and to also help explore new markets for future trade.

The Indian Government has undertaken several initiatives to enhance exports, attract investments, and promote ease of doing business, creating a robust manufacturing and innovation ecosystem. The Startup India initiative has fostered a thriving entrepreneurial ecosystem with 1.33 lakh recognized startups, supported by simplification measures, funding, and industry-academia collaboration.

Investment in projects and financial support: China is ready to massively in Pakistan for the installation of new power plants and upgrading of roads and railways to improve infrastructure. According to the Pakistan Business Council, this project is equal to 20 percent of the country's GDP for the period of the next five years and will increase its growth by 3 percent points.



4.4. Emerging technologies in shaping future

New technologies (digital currencies and Block-chain) have the potential to transform trade among SCO countries by enhancing efficiency, transparency, security, and financial integration. These technologies can facilitate trade-related transactions, support financial integration, and reduce the financial risks and costs of trade.

Online and Digital Payment Systems: In the current era of globalization, online payment systems (mobile banking, mobile wallets, internet banking, online lending platforms) are common and generating new trends in financial transactions thus integrating the financial systems.

China and Russia are investing in Block-Chain technology. Russia is developing the Faster Payment System (FPS) for instant bank transfers between all categories of people and has introduced the "Mir national payment card", preparing the regulatory framework necessary for the development of the digital rubble and other digital assets. India is engaged in the usage and setup of Digital IT Platforms. 11 Pakistan has developed various digital payment systems (RAQR-based payments, and other FinTech collaborations). Moreover, in Pakistan, the dispute resolution mechanism, supported by the SBP safeguards a strong context for efficiently resolving disputes. Zindigi app supports these initiatives to bring the digital payments infrastructure to the masses (Nation, 2024). For cross-border trade facilitation and electronic platforms, there is presence of PSW12, WeBOC systems in Pakistan. Uzbekistan has introduced information and communication and digital technologies, and the country is developing digital infrastructure, e-government, digitalization of production, creation of a national IT sector and IT education, the Digital Uzbekistan 2030 Strategy was adopted in October 2020.

India's Digital Public Infrastructure (DPI) is a cornerstone of its digital economy, enabling seamless interaction between citizens, businesses, and the government. As a global leader in DPI, India has implemented transformative initiatives like the Unified Payments Interface (UPI), which has revolutionized digital payments, growing from 92 crore transactions in FY 2017-18 to 8,375 crore in FY 2022-23. The Reserve Bank of India's Digital Rupee pilot also marks India's entry into Central Bank Digital Currency (CBDC), aiming to lower currency management costs and

¹¹ https://eng.sectsco.org/20230222/SCO-countries-moving-towards-digital-transformation--931261.html ¹² The PSW system is providing electronic registration for Customs, electronic processing and issuance of import permits, release orders, Phyto-sanitary certificates, and other documents as mandated by the above-referred departments. All the commercial banks have been fully integrated with the PSW platform and are exchanging trade related financial information/transactional data fully visible to Customs during clearance and eliminate the need for manual verification (PSW annual report)¹²

facilitate real-time, efficient cross-border transactions. These initiatives highlight India's leadership in leveraging DPI for inclusive growth and innovation.

Block-chain Technology for Supply Chain Management: China and Russia are investing in block-chain technology for trade and finance, which can be adopted by other SCO member countries as well for smoother trade operations. It provides lower transaction costs, and speeds up trade processes by providing a secure and transparent ledger of transactions.

Block-chain technology is being explored by Pakistan as well to enhance transparency and efficiency in trade finance and supply chain management system. Pakistan has deployed for the first time the block-chain technology in the banking sector which will not only make financial transactions instant and secure, but will also document each and every step taken by the sender and receiver of remittances. This will help fight the illegal Hawala and Hundi system at the international level.

India has launched the India AI Mission (AI for all) to bolster its global leadership in artificial intelligence (AI), foster technological self-reliance, ensure ethical and responsible AI deployment, and democratize the benefits of AI across all strata of society.

Currency Swap Facility: China is promoting the yuan as a regional currency within the SCO through bilateral currency swap agreements. This initiative supports China's stance reducing reliance on the U.S. dollar in cross-border trade and financial transactions. These arrangements are denominated in yuan and the counterpart currency, allowing the counterpart of the People's Bank of China (PBOC) to access yuan liquidity for short periods at relatively lower interest rates in return for its own currency as implicit collateral. Such swap agreements encourage partners to increase the purchase of Chinese goods by using yuan loans.

China has signed bilateral currency swap agreements with members of the SCO (Uzbekistan, Kazakhstan, Russia, Tajikistan, and Pakistan) and SCO observant and dialogue partners (Mongolia, Turkey, and Armenia). Although China has not signed a bilateral currency swap with Kyrgyz Republic, but the PBOC and the National Bank of the Kyrgyz Republic have signed an intent to strengthen financial cooperation¹³.

Governments of both Pakistan and China have allowed currency swap facilities but the private sector has not made an optimal use of this facility for its large import and export transactions (SDPI, 2017).¹⁴

¹³ https://foreignpolicy.com/2022/09/21/china-yuan-us-dollar-sco-currency/

¹⁴ https://sdpi.org/pakistan-china-financial-market-integration-w-165/publication_detail

Table 9: Summary of Financial Integration among SCO Countries

SCO Countries	Member Bank	Financial markets	Initiatives for financial integration	
Belarus	-	Moderately developed	 Believe in developing financial mechanisms. Intends to advance the creation of an SCO collective financial institution and a mechanism for bilateral payments in national currencies (President.gov.by, July 4). Belarus-Russia sign agreement on financial market operations The Currency policy meeting considered approaches to the harmonization of legislation in the financial market 	
China	China Development Bank (CDB);	Developed	 ◇ Provide Currency Swap facility ◇ Investing in Block chain technology 	
Iran		Moderately Developed	♦ Favors joint bank between SCO countries & joint free zones	
India	India Infrastructure Finance Company Limited (IIFCL)	Developed	 ◇ Believe in financial integration ◇ Supports innovative financial mechanisms 	
Kazakhstan	Kazakhstan Development Bank, JSC	Not fully developed	 Creation of joint financial institutions, the SCO Interbank Union (IBU), which actively cooperates with the Eurasian Development Bank to finance projects Gradual transition from the dollar to national currencies for settlements In 2022, the Samarkand Forum adopted a roadmap to increase the share of settlements in national currencies. It is expected that more integrated financial institutions, such as joint investment funds, will be established in the future to promote economic growth and development. Central banks' digital currency technologies are being tested in China and are under development in Russia and in other countries. Mutual settlements in digital currencies can become a promising area of interaction. 	
Kyrgyz Republic	RSK Bank, OJSC (Kirgizia)	Not fully developed	 Willing to adopt financial integration system Willing to form common financial market 	

(contd. on next page)

Pakistan	Habib Bank Limited (Islamic Republic of Pakistan).	Moderately developed	 ♦ Member of SCO Interbank Union ♦ Provide Currency Swap facility ♦ Adopted online digital payment systems ♦ Use of different apps & QR based payments
Russia	State Development Corporation "VEB.RF	Developed	 ◇ Investing in Block chain technology ◇ Developing national financial infrastructure ◇ Developing Financial Messaging System (SPFS) between banks and stakeholders ◇ Developing the Faster Payment System (FPS) for instant bank transfers between all categories of persons ◇ Introduction of Mir national payment card ◇ Actively working to prepare the regulatory framework necessary for the development of the digital rubble and other digital assets
Tajikistan	State Savings Bank of the Republic of Tajikistan "Amonatbonk"	Not fully developed	 Willing to adopt financial integration system Willing to form common financial market
Uzbekistan	Uzbekistan National Bank for Foreign Economic Affairs	Not fully developed	 Achieved financial stability with tight monetary policy Introduced information and communication and digital technologies Development of digital infrastructure, e-government, digitalization of production, creation of a national IT sector and IT education, the Digital Uzbekistan 2030 Strategy was adopted in October 2020

5. LOGISTIC INFRASTRUCTURE

This section provides a comprehensive analysis of development in regional infrastructure projects in SCO, focusing on cooperation and the challenges and measures associated with logistical difficulties. It highlights key infrastructure initiatives that aim to enhance connectivity like transport corridors, rail network, pipelines and ports etc. all of which are vital to improve regional trade routes. It also provides insights into logistical challenges faced by both landlocked and coastal countries in the SCO. The chapter also recommends measures to mitigate these challenges promoting trade and economic growth within the SCO region.

With vast energy resources in the region, the SCO plays a crucial role in the global energy economy, particularly with energy-rich states like Kazakhstan, Turkmenistan, and Uzbekistan. Russia is among the countries that hold the world's largest natural gas, coal and oil reserves. Currently, the Uzbekistan imports natural gas from Russia, with annual volume of supplies at 2.8 bn cubic meter since 2023 according to the 2-year contract terms between Gasprom Export and Uzgastrade companies. Kazakhstan, the region's most energy-rich country, boasts significant oil, coal, and uranium reserves. Kyrgyz Republic and Tajikistan generate significant hydroelectric power, which positions them as net exporters of electricity. The region is emerged as the new frontier of world energy by virtue of its huge and untapped hydrocarbon reserves (Pradhan and Mohanty, 2021). With only 10% of the region's energy resources currently exploited, Central Asia presents a major opportunity for expanding energy exports. There is a huge potential to increase trade within these countries.

The SCO offers even broader opportunities for advancing connectivity and trade. Strategically, although geographical constraints have limited direct linkages with Central Asian Republics (CARs), regional connectivity projects, such as BRI, INSTC, CASA-1000, TAPI, railway corridor project with Uzbekistan, and other regional connectivity initiatives, can bridge these gaps. These projects within the SCO region and other multilateral and bilateral initiatives can help improve bilateral relations and promote more stable and dynamic regional trade.

However, for this to materialize effectively, it is essential to have sufficient logistics infrastructure in place. This includes well developed transport networks, efficient warehousing and reliable supply chains and smooth custom processes. Without these, the SCO will not be able to expand its multi-dimensional cooperation for further development of the region.



5.1. Logistical Infrastructure in SCO countries

Table 10 & 11 presents the Logistic Performance Index (LPI) of the SCO member states, their global ranking and indicator wise score. The LPI index is based on the quality of trade and transport infrastructure, custom procedures, international shipments, logistics competence, tracking and tracing and timeliness. It is an effective tool to gauge the efficiency and effectiveness of logistics in different sectors.

The LPI ranking of the SCO countries vary widely indicating differences in infrastructure development, custom procedures and logistics services. China and India rank well in the LPI index because of advanced logistics infrastructure and efficient custom procedures. As the world largest trading nation, China has invested heavily in modern logistics like high-speed rails, advanced port facilities and Belt & Road to improve regional and global connectivity and global supply chains. Since 2015, India also invested in the trade related hard and soft infrastructure. Kazakhstan and Belarus are ranked same on the index.

Table 10: LPI Score and Ranks of SCO members

Member	LPI score	LPI Global Ranking		
Belarus	2.7	79		
China	3.7	19		
India	3.4	38		
Iran	2.3	123		
Kazakhstan	2.7	79		
Kyrgyz Republic	2.3	123		
Pakistan	-	-		
Russia	2.6	88		
Tajikistan	2.5	97		
Uzbekistan	2.6	88		

Source: Logistics Performance Index, 2023

Table 11: Indicator-wise Score of SCO Members in LPI

Economy	Customs Score	Infrastructure Score	International Shipments Score	Logistics Competence and Quality Score	Timeliness Score	Tracking and Tracing Score
Belarus	2.6	2.7	2.6	2.6	3.1	2.6
China	3.3	4.0	3.6	3.8	3.7	3.8
India	3.0	3.2	3.5	3.5	3.6	3.4
Iran	2.2	2.4	2.4	2.1	2.7	2.4
Kazakhstan	2.6	2.5	2.6	2.7	2.9	2.8
Kyrgyz Republic	2.2	2.4	2.4	2.2	2.4	2.3
Russia	2.4	2.7	2.3	2.6	2.9	2.5
Tajikistan	2.2	2.5	2.5	2.8	2.9	2.0
Uzbekistan	2.6	2.4	2.6	2.6	2.8	2.4

Source: Logistics Performance Index (2023), World Bank Heat map: Dark Green represents the highest score, whereas red represents the lowest score

A United Nations Survey on Digital and Sustainable Trade Facilitation, a joint initiative of the UN regional commissions and UNCTAD helps countries benchmark and reduce the time and cost of trading across borders. The analysis is based on 60 trade facilitation measures, classified into four groups: "General Trade Facilitation", "Digital Trade Facilitation", "Sustainable Trade Facilitation" and "Other Trade Facilitation." India has the highest trade facilitation implementation rate, with an overall score of 93.55% and Tajikistan at the lowest (Table 12 on the next page).

Table 12: Compliance of SCO Members under Different Measures

Countries	Trade Facilitation Score	Transparency	Formalities	Institutional Arrangements and Cooperation	Paperless Trade	Cross-Border Paperless Trade
Belarus	72.04%	86.67%	75.00%	77.78%	70.37%	55.56%
China	91.40%	100.00%	95.83%	88.89%	96.30%	72.22%
India	93.55%	100.00%	100.00%	100.00%	100.00%	66.67%
Iran	77.42%	80.00%	66.67%	100.00%	96.30%	50.00%
Kazakhstan	76.34%	93.33%	87.50%	77.78%	74.07%	50.00%
Kyrgyz Republic	72.04%	93.33%	66.67%	77.78%	59.26%	77.78%
Pakistan	70.97%	80.00%	66.67%	77.78%	85.19%	44.44%
Russia	87.10%	100.00%	100.00%	88.89%	88.89%	55.56%
Tajikistan	50.54%	73.33%	79.17%	55.56%	33.33%	16.67%
Uzbekistan	84.95%	93.33%	87.50%	44.44%	88.89%	88.89%

Source: UN Survey on Digital and Sustainable Trade Facilitation Heat map: Dark Green represents the highest score, whereas red represents the lowest The Trade Facilitation Agreement (TFA) aims to improve trade efficiency worldwide, encouraging economic growth by, increasing transparency, and taking advantage of new technologies. It also aims to simplify and streamline international trade procedures. World Trade Organization (WTO) member countries are committed to implementing the provisions of the TFA, which include measures to expedite the movement, release, and clearance of goods. However, as Iran, Belarus, and Uzbekistan have not yet joined the WTO they have no obligations under the TFA.

The TIR (Transports Internationaux Routiers) Convention facilitates international road transport by providing a standardized customs transit procedure. Kazakhstan, Kyrgyz Republic, Tajikistan, Russia, and Uzbekistan are contracting parties to the TIR Convention and actively use the TIR system to facilitate road transport across borders. India acceded to the TIR Convention in 2017, aiming to enhance trade routes, particularly through the International North-South Transport Corridor (INSTC). Also, IMO conventions aim to regulate maritime safety, security, and environmental protection. All SCO members are party to IMO, barring Tajikistan and Uzbekistan, as they are both landlocked nations.

The increasing focus on digitalization and modernization through e-TIR and e-CMR¹⁵ implementation, infrastructure investments, and improving port handling is further expected to decrease logistic barriers. These efforts aim to facilitate road transport, enhance trade and connectivity, thereby generate significant trade and investment in the region.

Kazakhstan as a landlocked country has made significant upgradation of its transport infrastructure, Belarus is located in eastern Europe and benefits from being a transit hub between Russia and Western Europe. Uzbekistan and Russia share the same rank. Russia's vast geography poses challenges. The sanctions on Iran, the complex geographical challenges of Tajikistan and Kyrgyz Republic results in the heavy reliance on costly and time-consuming road transport. Thus, the lower LPI rank countries need to modernize the transport infrastructure to improve their global competitiveness and integrate better into the global supply chains. This in turn will strengthen regional connectivity and boost economic integration within the SCO framework. Also, the landlocked countries often face long delays in transit countries which increase lead time and reduces reliability. The coordinated actions across borders, including the implementation of strong transit system, is essential for improving the trade and logistics environment (LPI, 2023).

Border delays due to significant differences in infrastructure, approval processes, multiple clearances and security checks, further complicating trade. Infrastructure development faces a significant challenge in terms of high costs, limited budget allocations, uncertain economic returns from large-scale projects, and lack of funding. Variations in regulatory frameworks also pose challenges in achieving efficient logistics operations. Strengthening regional cooperation and confidence-building measures is crucial for mitigating these risks and ensuring uninterrupted trade flows. Improving the LPI ranking is also essential for enhancing the efficiency

¹⁵Transports Internationaux Routiers (TIR); Electronic Consignment note (CMR)

and competitiveness of the logistics sector. Cost optimization by improving infrastructural efficiency is a crucial aspect of addressing the challenges faced by the Indian logistics sector. This involves investments in upgrading and modernizing physical infrastructure such as roads, railways, ports, and terminals to facilitate trade. Adopting advanced technologies is vital for cost optimization. Embracing automation, digitalization, and data analytics can bring about considerable improvements in the logistics sector. Policy reforms and government initiatives will play a crucial role in transforming the logistics sector.



5.2. SCO Priorities - Declarations

The top priority of the SCO is to facilitate favorable environments through strengthening the economic and trade events, improvements of technology and industrial sector and setup of the transport and logistics development among the SCO member countries" (Dushanbe Declaration, 2014). In the 'Qingdao Declaration' the members emphasized the promotion of transportation, improvement of transit, expansion of rail, road networks, and upgrading of international transport routes. They also highlighted the need to implement the intergovernmental agreement on facilitating international road transportation from the 2014 Summit (Qingdao Declaration, 2018). The development potential of the SCO countries' transport and logistics sectors, the prospects for digitization in transportation, best practices for establishing reliable cargo supply chains, the execution of infrastructure projects, and strategies to ensure sustainable economic growth in transport and communications were emphasized in first SCO transport forum in 2023.

Infrastructure Financing:

- Infrastructure development faces a significant challenge in terms of high costs, limited budget allocations, uncertain economic returns from large-scale projects, and lack of funding. The SCO Business Council and SCO Interbank Union are the two platforms that will provide opportunities for the expansion of businesses and implementation of projects of economic cooperation, particularly in the innovative sectors (SCO Development Strategy, 2025).
- Additionally, China has committed to establishing a special lending facility under the SCO Interbank Union. Established in 2005, the consortium aims to provide financing and banking services for investment projects in SCO member states (Fayyaz, 2019). (Asia Plus, 2017) reported that the SCO Interbank Union has allocated 80 bn. US dollar and 114 bn. Yuan (approximately 17.81 bn. US dollar) for development projects within member states (Rauf, 2019).
- ◆ The SCO Development Strategy 2025, also aims to strengthen the bank and the fund further with the support of member states.
- Another significant development is the Chinese president's pledge of 30 bn. RMB (4.68 bn. US dollars) to the SCO to promote free trade and enhance regional connectivity (Fayyaz, 2019).

- Russia is actively involved in the implementation of the project to create an international trade and economic centre for the SCO countries, affecting the spheres of transport, industry, smart technologies, e-commerce, and agriculture. In addition to the Russian Federation, Kazakhstan, Kyrgyz Republic, China, and Uzbekistan are also taking part in it. The project, presented in 2018, involves the creation of business platforms through which companies from the SCO countries will be able to promote their products to the international market. The platform will provide logistics, financial and consulting services. One of the multifunctional trade and economic platforms formed within the framework of the project is presented in Chongqing (China), and platforms are also expected to open in St. Petersburg (Russia) and Khorgos (Kazakhstan).
- The Republic of Kazakhstan suggested that the Council of Heads of Government consider the possibility of creating a joint investment fund, which will provide financial support for project activities and stimulate direct and portfolio investments in regional projects. Additionally, the meeting of the Ministers for Foreign Economic and Trade Activities (12 September 2024, Islamabad) approved the creation of a base of "SCO economic preferences" that will increase the investment attractiveness of the organization.
- ◆ The theme of India's G20 Presidency was "Vasudhaiva Kutumbakam" or "One Earth One Family One Future" which affirms the value of all life – human, animal, plant, and microorganisms – and their interconnectedness on the planet Earth and in the wider universe.
- At the Global South Summit, India has put forward a human-centric, multi-dimensional and multi sectoral proposal for a comprehensive Global Development Compact comprising of four elements: Trade for Development; Capacity building for sustainable growth; Technology sharing; and Project specific concessional finance and grants.

Roads Transport

According to the SCO Development Strategy 2025, the member states are committed to swiftly bringing into effect and implementing the 2014 Agreement on favorable conditions for international road transport among SCO countries. As part of their future strategy, they will focus on leveraging the region's transit potential by establishing regional transport and transit corridors. A key strategic priority will be enhancing infrastructure and logistics capabilities, including expanding the network of international logistics centers and developing industrial clusters along major transport routes within the SCO region. The republic of Uzbekistan took the initiative to create the Regional Centre for the Development of Transport and Communications Connectivity in Central Asia under UN aegis and to draft a strategy for cooperation between SCO member states in promoting transport connectivity (Moscow Declaration, 2020). There are several road infrastructure projects in which SCO members are individually or jointly involved. The details are given below.

- ◆ China's Belt and Road Initiative (BRI), is a commitment to easing bottlenecks to Eurasian trade by improving and building networks of connectivity across Central, Western and Southern Asia, but also reaching out to the Middle East as well as East and North Africa (Amighini 2017). The BRI will enhance connectivity for the landlocked Central Asian countries, allowing them to extend their trade beyond the region. It will modernize their transport infrastructure with Chinese support, transforming the area into a more promising economic corridor. (Pradhan and Mohanty, 2021). Tajikistan is actively cooperating with China within the framework of the "One Belt, One Road" initiative also.
- Also, Pakistan and Uzbekistan have signed an extradition treaty and invested significant efforts in infrastructural connections.
- ◆ Pakistan, China, Kazakhstan and Kyrgyz Republic have agreed to initiate a bus service that would not only enhance trade but also be an important tool to promote people-to people contacts between the four countries (Siddiqa, 2016).
- ◆ The International North-South Transport Corridor (INSTC), a 7,200-km long corridor linking India, Iran, Russia, and Europe and Central Asia, aims to reduce travel time and transportation costs for goods between these regions. This 7,200-km-long network integrates maritime, rail, and road routes. The road, rail and maritime component of INSTC involves developing and upgrading road infrastructure to facilitate smoother transit of goods between India and SCO countries like Russia and Central Asian states. This corridor aims to reduce transportation time and freight costs by 40% and 30% compared to the Suez Canal route. It is expected that by 2030, cargo traffic along the North-South route will increase to 40-45 million tons, with a prospect of up to 60-100 million tons.
- The Ashgabat Agreement signed in 2011, aims to establish an international transport and transit corridor between Central Asia and the Persian Gulf, benefiting trade routes and providing alternative connectivity options for SCO member states. India joined in 2018 to facilitate connectivity within Eurasia and synchronize it with other transport corridors, with Turkmenistan, Iran, Uzbekistan, Kazakhstan, Pakistan, Oman, and India currently endorsed. The agreement facilitates the movement of goods by road and rail, promoting trade and economic ties between member states.

The recent SCO Transport officials' meeting held in 2023, reaffirmed commitments to previous agreements, emphasizing the need for enhanced interconnectivity and effective transport corridors as outlined in the 9th Meeting of Transport Ministers and the Head of State Council's decisions. Key resolutions included establishing a Special Working Group for Transport Cooperation, implementing the regulations developed in the 10th Meeting of Transport Ministers, and promoting sustainable transport practices. The meeting supported Uzbekistan's proposal for an Interregional Centre for Connectivity in Tashkent, approved the Plan of Action for Railway Cooperation until 2025, and endorsed the SCO Interbank Union's economic cooperation proposal. Additionally, it acknowledged the outcomes of the first SCO International Transport Forum and the importance of environmentally friendly transport systems. The organization of a Joint Public-Private conference to further discuss the operationalization of transport corridors was also agreed upon.

Variations in regulatory frameworks also pose challenges in achieving efficient logistics operations. Customs is another area where the strategy encompasses safeguarding intellectual property rights, sharing information on goods and vehicles crossing customs borders, and collaborating on the development and implementation of risk management systems is required. It also includes efforts to combat customs violations and to enhance the skills of customs personnel through vocational training, retraining, and advanced education programs. The international bench mark of efficient transit, Transport Internationaux Routiers (TIR) can be used as the guiding framework. Strengthening regional cooperation and confidence-building measures is crucial for mitigating these risks and ensuring uninterrupted trade flows.

Railways Transport

Railways are vital for enhancing connectivity and facilitating trade within SCO region, linking member states and facilitating the movement of goods and people across vast distances. Some of the member countries like China, India and Russia, as well as landlocked central Asian republics, rely heavily on the rail transport because of their expansive geographies and growing demand for regional integration. There are several railway projects undertaken individually or jointly by the SCO member. The details are as follows.

- A central component of trans Afghan corridor is the proposed (Uzbekistan-Afghanistan-Pakistan Railway- 573 km), which would link Uzbekistan's rail network to Pakistan's, passing through Afghanistan. This railway is intended to facilitate the efficient movement of goods between Central and South Asia. The corridor is expected to significantly reduce transportation costs and times, making trade more efficient. It would allow Central Asian countries to export goods to global markets more easily via Pakistani ports, and it would enable South Asian countries to access Central Asian markets. It is also important to understand that implementing common infrastructure projects such as the Uzbekistan-Afghanistan-Pakistan Railway will not just solve socioeconomic, transport and communication problems, but also make significant contributions to regional security¹⁶.
- Kazakhstan is planning to build a railway line to connect with the 928-km Kazakhstan-Turkmenistan-Iran (KTI) railway line, which opened in 2014, providing landlocked Central Asian countries with access to Iranian seaports.
- ◆ India is reviving its historical cultural and trade ties with the Eurasian region through the construction of the International North-South Transport Corridor (INSTC), a 7,200-km long corridor linking India, Iran, Russia, and Europe and Central Asia, aims to reduce travel time and transportation costs for goods between these regions.
- The Kyrgyz Republic also pays great attention to the **China-Kyrgyzstan-Uzbekistan** railway construction project. At the moment, the political stage of the project has been successfully completed with the signing of a trilateral intergovernmental agreement on cooperation in the joint promotion of the China-Kyrgyzstan-Uzbekistan railway project, and now the next step is the approval of a more detailed commercial agreement. It will connect the East and the West along the China-West Asia-Europe route.

¹⁶ China-Daily by Vladimir Norov, 25 January 2024

- ◆ The Trans-Asian Railway Network (TAR) is a network of railways connecting Asian countries with Europe. The project involves China, Russia, Kazakhstan and other SCO countries. This project aims to create an uninterrupted railway connection between the participating countries.
- ◆ The Russian Federation and Iran signed an agreement on financing the construction of the *Rasht-Astara* railway section, the eastern part of ITC, with a length of 162 km in Iran, without which it is impossible to form a seamless railway section from the Russian Federation to the southern ports of Iran.
- ◆ In May 2024, Russia launched the first Agro-express train from the Urals region to India in the eastern direction of the North-South ITC, the accelerated container trains for the perishable produce.
- ♦ In 2021, a plan of priority measures was adopted for the digitalization of freight rail transportation in the interests of developing trade and economic cooperation between the EAEU States and the People's Republic of China.
- ◆ In 2024, Pakistan and Russia signed a MoU on cooperation in railway sector to enhance and streamline international cargo. The MoU is to explore opportunities for upgrading railway projects and other initiatives within the sector. It also sets up a framework for • potential future collaboration with relevant companies operating in the railway industry¹¹. This would further strengthen the implementations of SCO signed protocols in this sector.

The fourth Meeting of SCO Heads of Railway Administrations in 2023, resulted in the adoption of several key documents: The Work Plan for SCO Railway Administrations (2023-2025), a draft Action Plan for implementing the Concept of Interaction between SCO Railway Administrations until 2025, and a draft Initiative Council proposal aimed at enhancing the quality and sustainability of international rail transport within the SCO including construction of state-of-the-art freight terminals, innovative interventions to improve the freight sector, construct new tracks to connect SCO member states and one-window operation etc. These decisions were formalized with signed protocols¹⁸.

Ports Transport

Given the diversity of SCO states, including landlocked countries like Kazakhstan, Kryz Republic and Uzbekistan, ports in coastal countries like China, India, Pakistan and Russia become vital gateways for global trade and access to international markets.

◆ Chabahar Port development -Zahedan Railway and Road Links: Chabahar is part of the proposed multimodal transport route, also known as the International North-South Transport Corridor (INSTC). This corridor links the Indian Ocean and the Persian Gulf to the Caspian Sea via Iran and to northern Europe via Saint Petersburg. As part of its investment in Chabahar Port, India is also developing the road and rail link between Chabahar and Zahedan in Iran. This infrastructure project enhances India's connectivity to Afghanistan and

¹⁷ https://www.sifc.gov.pk/news/252

https://eng.sectsco.org/20230512/-Fourth-meeting-of-the-SCO-Heads-of-Railway-Administrations--943741.html

further into Central Asia, providing an alternative route to access SCO member countries. It is expected to boost trade and regional cooperation significantly. India has invested around USD 120 million in developing and operating the Shahid Beheshti Port in Chabahar, besides offering a credit window of 250 mil. US dollarfor infrastructure upgrades. According to industry estimates, shipments through the INSTC route will take 15 days less than those through the Suez Canal route.

- ◆ India's Sagar Mala project is a national initiative to enhance the country's maritime infrastructure, improve port connectivity, and promote port-led development. India aims to strengthen maritime trade links with partner countries by modernizing and expanding port capacities. Improved port facilities and connectivity can facilitate smoother trade flows with these member states. These projects are being implemented by relevant central ministries, state governments, and major ports. These projects are categorized into five pillars Port Modernization, Port Connectivity, Port-Led Industrialization, Coastal Community Development, and Coastal Shipping & Inland Water Transport.
- Pakistan's deep-water ports will significantly boost the Central Asian Republics' ability to ship goods to international markets (Khan, 2013). Pakistan's Gwadar deep-sea port offers a cost-effective and shortest route to the oil-rich Middle Eastern region. This positions Pakistan as a strategic regional trade partner and a vital transit energy corridor (Fayyaz, 2019). The port of Gwadar, which Pakistan is developing with Chinese assistance, is situated just 250 miles from the Straits of Hormuz, a region holding 40 percent of the world's oil reserves. This port is intended to be a key regional shipping hub, offering landlocked Central Asian republics, Afghanistan, and the Chinese Xinjiang region direct access to the Arabian Sea. The development of Gwadar's deep-water maritime port on the Balochistan coast and its connected routes to Afghanistan will shorten the distance between Pakistan and Central Asia by 500 km reducing the travel time from five to ten hours (table 2). This will facilitate the movement of Central Asia's vast energy resources to global markets, generating substantial transit fee profits for Pakistan. (Khan, 2013).

Table 13: Distances between Central Asian Cities and Gwadar Port

Cities	Ashgabat	Astana	Bishkek	Dushanbe	Kabul	Tashkent
Gwadar port	2,400 km	4,500 km	3,300 km	2,200 km	1,600 km	2,700 km

Source: USAID Trade Project.

Pipelines

Given the energy rich nature of the SCO members, pipelines are a critical infrastructure component within SCO, playing a pivotal role in transporting energy resources such as natural gas and oil across vast distances.

- A major milestone in economic coordination is the construction of the *Turkmenistan–Afghanistan–Pakistan–India (TAPI)* Natural Gas Pipeline Project, funded by the Asian Development Bank (ADB). This project is designed to export up to 33 billion cubic meters of natural gas annually via an 1,800-kilometer pipeline stretching from Turkmenistan through Afghanistan, Pakistan, and into India. Initially estimated at 7.6 bn. US dollar in 2008, TAPI will be managed by a special purpose consortium company (SPCC) led by a commercial entity. The participating countries—Turkmenistan, Afghanistan, Pakistan, and India—have the option to invest in the SPCC. Once a consortium leader is selected and agreements are finalized, the design and construction phase is expected to take approximately four years (Khan, 2013).
- The *TAP (Turkmenistan-Afghanistan-Pakistan)* pipeline project has been revived and top-level visits devoted to this issue are occurring on a regular basis (Siddiqa, 2016).
- The Russian President, Vladimir Putin, has also expressed his interest in the *Iran-Pakistan-India (IPI)* pipeline by announcing that Gazprom would be ready to participate in the project (Siddiqa, 2016).
- The *Central Asia-South Asia* Electricity Transmission and Trade Project (CASA-1000) is aimed at constructing a power transmission line between Kyrgyz Republic, Tajikistan, Pakistan, and Afghanistan. The project's goal is to transmit excess hydroelectric power from Central Asia to South Asia.

The SCO forum must be utilized to promote cooperation and coordination for the completion of Turkmenistan-Afghanistan-Pakistan India (TAPI) gas pipeline and the Central Asia-South Asia Electricity Transmission and Trade Project, commonly known as CASA-1000 (Siddiqa, 2016).

Digital Technology

As digital technology increasingly drives economic growth, there is significant potential for collaboration in digital transformation. The SCO emphasizes the need to strengthen comprehensive cooperation in digitalization and to address the digital divide that affects economic development and strengthen the cross-border transit.

This focus on digital collaboration is complemented by educational initiatives, such as the establishment of the SCO University, which was proposed by Russian President Vladimir Putin at the 2007 Bishkek Summit and unanimously

supported by all member states. Currently, 74 universities are part of the SCO University network across member countries, offering specialized programs in fields like Information Technology, Nanotechnology, and more. These universities play a crucial role in fostering digital expertise and innovation within the SCO region (Xue and Makengo, 2021).

- The republic of Kazakhstan took initiative to create pool of modern technology parks in SCO members (Moscow Declaration, 2020).
- ◆ India launched the National Master Plan for Multi-modal Connectivity in October 2021. It is essentially a digital platform that aims to bring 16 Ministries, including Railways and Roadways, together for integrated planning and coordinated implementation of infrastructure connectivity projects. This will provide integrated and seamless connectivity for the movement of people, goods, and services from one mode of transport to another to boost connectivity and multimodality to curtail logistic costs.
- Kazakhstan has also proposed to create a partner network of large strategic ports and logistics centers, which will improve transit and transport capabilities and open up the potential of new routes such as the North-South and East– West corridors.
- ◆ India's Comprehensive Logistics Action Plan (CLAP) involves the digital integration of different systems from seven various departments, including road transport, railways, aviation, commerce ministries, and foreign trade. Under this action point following two initiatives have been undertaken:
 - Unified Logistics Interface Platform (ULIP): This ensures shorter and smoother cargo movement and enables the secure exchange of information on a real-time basis.
 - ♦ Ease of Logistics (ELOG): This initiative aims to facilitate and ensure the ease of logistics business through transparency and accessibility.

Summary

Despite a number of positive aspects, there are barriers faced by the SCO member states in promoting trade, which is primarily due to differences in economic systems. SCO member countries have different economic systems and levels of development, which makes it difficult to unify trade norms and rules. This creates additional barriers to trade associated with the need to adapt to different standards and requirements. Despite efforts to develop transport infrastructure, some regions remain difficult to access. This is especially true for Tajikistan where lack of financing and technological resources, as well as difficult mountainous terrain, pose additional challenges to the implementation of infrastructure projects. Limited infrastructure and geographical remoteness complicate logistics and increase the cost of transporting goods

Lengthy and complex customs procedures at border crossings create additional costs and delays for businesses, despite the desire to simplify customs procedures, differences in legislation and practice remain. This leads to delays and additional costs at border crossings. For example, the export of Tajikistan's agricultural products to Kazakhstan may face delays at the border due to lengthy checks and paperwork. The lack of modern logistics centers and warehousing facilities also creates barriers to the efficient storage and redistribution of goods.

6.Transitioning into the Electric Vehicle (EV) World



6.1. Electric Vehicles - Why?

The advent of the 21st century brought along significant changes across the world. The world has seen multiple ups and downs since the turn of the century including the financial crisis of 2009 and the COVID-19 pandemic as well as the economic rise of the emerging economies in Asia. The biggest transformation though, arguably has come about in the world of technology.

The shift in approach, since the industrial revolution, regarding adoption and advancement of technology has constantly been on an uphill. However, the exponential growth of technological advancements globally during the last couple of decades is unparalleled.

While the world is at its most advanced stage ever and yet further evolving rapidly, the challenges regarding its sustainability are also at their all-time high. One of the major challenges to the global sustainability is posed by the climate changes. Rising global temperatures, inconsistent weather patterns, growing pollution, natural disasters are the examples of the effects of changing climate that the world is already facing and are expected to worsen if corrective measures are not undertaken timely.

Consequent to the threats to climate sustainability and the contribution of automobiles in pollution, there is a global effort to shift to Electric Vehicles (EVs) instead of Internal Combustion Engine Vehicles (ICEVs) to ensure towards sustainable living and a better climate. This has been possible only through the advancements of technology which have enabled that EVs which were made commercially available for the first time in late 1990s, can now be mass produced globally and also used in extreme weathers. This is without doubt an important milestone for achieving the goals set for EV transition achievable by 2030.

The western world has aggressively adopted Electric Vehicles. Transitioning to EVs is not just an individual choice, but requires the development of an effective ecosystem stemming from adequate policy measures that support the manufacturing of EVs as well as trade between countries. Further, the charging infrastructure is an essential catalyst in shift from ICEVs to EVs. The East, though,



6.2. EV Transition in SCO Countries

Among the SCO member countries, China is at the forefront of the global drive for scaling up EV sales. China has successfully managed to not only amplify its EV production to provide long-mileage EVs at low costs, but has also exported to various global markets in the left and right hand drive markets. This has made China join US as the largest EV producers in the world.

Within the SCO member countries, the EV adoption follows the same pattern as it is in the world otherwise. High Income countries have efficaciously managed to drive the change from ICEVs to EVs through effective government policies

and financial incentives, however, rest of the countries are still trying to find the right mix of policies within their fiscal space to promote the use of EVs. Other SCO countries such as India, Russia, Kazakhstan and Pakistan are also trying to push EV sales in their respective countries, but has also exported to various global markets in the left- and right-hand drive markets. This has made China join the US as the largest EV producers in the world.

However, as high income countries globally, and China in particular within the SCO members have successfully created the pathway towards shift to the EVs, there is a lot to gain for other member countries. It is forecasted that by 2030 China will have 50 million electric vehicles on roads, with annual electric vehicle sales expected to make up 40% of the total car sales in the country. EV sales already account for approximately one-third of the total sales in China, as they grew from 1.3 million to 6.8 million between 2021 and 2022. China's push towards EV adoption has been supported by the significant difference in the running cost of fuel-based vehicles and EVs, thus, attracting customers not just on the basis of the probable environmental impact but through providing a more financially viable option.

Similarly, other SCO member countries are making strides in encouraging EV adoption in their respective countries as well. Kazakhstan has managed to increase Electric Vehicles sales 13.5 times over the last year, with majority of the shift seen in passenger cars while doubling the number of EV trucks in the country as well. Though, this is a healthy and positive change in the country but it must be recognized that the high proportion of EV adoption is also aided by the low base effect. The total number of EVs still remains in just a few thousands in the country as the total number of EVs in the country reached 7680 as of December 01, 2023; but without doubt the mood has started to shift in favor of the transition to EVs. This shift has been supported by the government policies, particularly the exemption of custom duties on purchase of Electric Vehicles to facilitate in reducing the total upfront cost of purchasing an Electric Vehicle.

India has also set itself promising targets for EV adoption, aiming to shift 40 percent of all vehicles in the country by 2030 to EVs while also generating over USD 100 billion in associated revenues. The EV sales accounted for five percent of the total vehicles sales between October 2022 and September 2023, as the country looks to trigger exponential Electric Vehicles ownership growth through the two and three wheeler vehicle market. Although, India too faces the challenge of high total up front cost as EVs cost more than their counterpart ICEVs. Coupled with other EV related issues such as range anxiety and charging infrastructure, India faces an uphill battle for increasing EV adoption which will require focused policy initiatives and category-specific measures to achieve its 2030 EV adoption targets.

The Indian government has launched the Green Hydrogen Mission with the aim to make India a global hub for production, utilization and export of green hydrogen and its derivatives, thereby facilitating the Indian economy's transition to low carbon intensity. The target is to reach an annual production of 5 MMT by 2030. The National Electric Mobility Mission Plan 2020 is one of the most important and ambitious initiatives undertaken by the Government of India that aims to bring about a transformational paradigm shift in the automotive and transportation industry in the country involving the promotion of hybrid and electric mobility in India.

Moreover, cross-country trade and other economic engagements have also helped improve the sales of EVs among SCO countries. Russia, despite the pull out by western automobile companies has managed to sustain its automobile market due to the presence of Chinese brands which continue to penetrate the EV market in Russia as well. Russia too is making efforts to seize the opportunity by welcoming Chinese brands wholeheartedly in its automobile market and particularly the EV segment. In one year starting May 2023 till April 2024, sales of EVs in Russia increased by almost 350% compared to the sales in the preceding year as EV ownership increased by 20,500 units in just one year. While Russia's local brands were able to sell just below 4000 EVs in this period, more than 50% of the EV sales belonged to Chinese brands resulting in more EVs being sold in Russia during the 12-month period than the entire decade prior to this.¹⁹ The transition to EVs in Russia too is barricaded currently by the lack of charging infrastructure present and low operating cost of ICEVs due to easy availability of oil and gas resources in the country.

Pakistan's Electric Vehicle market too has benefitted from the expansion of China's EV brands. After the introduction of country's first ever National Electric Vehicle Policy in 2019, many concessions were extended to encourage the import of Electric Vehicles in Pakistan by individuals as well as to promote the sales of EVs in Pakistan through automobile companies. While initially, benefitting from this policy, many EVs belonging to various global brands were imported in Pakistan but with time EVs are now being offered by multiple automobile companies for direct sales in Pakistan, majority of them China origin companies.

The number of EV ownership remains significantly low in the country, with ownership still concentrated among few households belonging to higher income class. Pakistan too like other SCO countries faces the challenge of high total upfront cost of EVs along with lack of charging infrastructure and increasing prices of electricity preventing the exponential growth of EV sales in Pakistan. These barricades if not overcome timely, Pakistan will face a significant challenge of achieving its 2030 sales targets. As per the National EV Policy, Pakistan aims to ensure that by 2030, 30% of its car sales, 50% of two and three wheelers' sales, and 50% and 30% of busses and trucks sales in the country run on electricity instead of fuel.

The transition towards Electric Vehicles for a sustainable future is a necessity and the shift globally imminent. While every country is on its own journey of transition from ICEVs to EVs, it must be recognized that it is a reality that cannot be ignored. It is therefore pertinent that the SCO member countries embrace this change and not resist it. For this purpose, it is essential that each member country devises its own plan regarding encouraging EV adoption, however collective efforts and collaboration among the SCO states it also vital for improved EV adoption in all countries.

Electric Vehicles Beyond Passenger Cars

Moreover, it is essential to recognize that Electric Vehicles are not just four-wheel passenger vehicles. Instead, other forms of vehicular transportation also operate

¹⁹ https://www.reuters.com/business/autos-transportation/zeekrs-sales-jump-chinese-dominate-russian-ev-market-2024-06-27/

on EV technology and must not be ignored by the SCO member countries. Motorbikes are still a very common source of mobility in this region, and the more financially viable option for a large population proportion in various member countries. While shift to EVs in four-wheel passenger vehicles might take time in some of the member states, it is essential that two- and three-wheel vehicles are shifted from fuel engines to EVs.

Some of the biggest challenges in EV adoption in two and three-wheeler segment are the upfront cost as compared to petrol run alternatives, as well as the small range of travel in a singular charge. Joint efforts by SCO member countries to research and resolve this issue can become the necessary catalytic agent that provides the necessary push for EV adoption in this segment.

Furthermore, public transport and road logistics are two other areas where the use of EVs can help reduce a significant portion of fuel usage for transport purposes. If production of Electric busses and trucks within the SCO countries can be enhanced, it can help not only reduce the pollution contribution by the transport sector within the SCO member countries but also enable them to tap in to a less competitive market globally.

The world is transitioning to Electric Vehicles, and it is of utmost importance that the SCO member countries do not lag behind the rest of the world. Instead, the SCO members have a unique opportunity to not only be part of the change but to drive the change. It is, although, possible only through joint efforts through continued cooperation and collaboration among all member states.

SCO Opportunity in Global Conflict

The transition to the Electric Vehicles is a direct consequence of the global movement towards protection of climate for a sustainable future, fueled by the Sustainable Development Goals. While collective good and collective efforts are repeatedly emphasized, measures and policy actions compromising the collective good and efforts for local economic sustainability have become recently evident. China's growth as a global automobile producer and especially its penetration in the global EV markets challenging the US as the largest EV producer in the world has brought about some counter-measures by the Western countries.

The US earlier this year in an attempt to protect its local EV production industry unveiled a new tariff plan for China origin Electric Vehicles among other products. Following the protectionist measures by the US, its economic allies particularly the EU was also expected to follow in the footsteps. Soon enough, despite concerns raised by Europe's largest car producing company Volkswagen, the EU imposed tariffs up to 38% on Chinese EVs while further deliberation on higher tariffs for the next five years have also begun. Canada also decided to jump on the bandwagon by imposing 100% tariff on Chinese Electric Vehicles.

At a time when the western economies are restricting EV trade with China and making EVs less accessible to their population by increasing the cost of ownership and removing or limiting a cheaper alternate option, the SCO member states must capitalize on this opportunity.

The SCO member states, as explained above, are making positive strides towards transitioning from ICEVs to EVs and achieve the targets they have set for themselves respectively for the upcoming decade. However, most of the SCO member states are also facing severe challenges in boosting EV ownerships in their respective countries. Some of the common major barriers include high total upfront cost of vehicle, lack of charging infrastructure and range anxiety due to lack of EV usage and associated facilities. Though, lack of EV adoption currently portrays a greater potential for EV adoption in the future.

Consequently, when the western countries are attempting to limit trade of EVs from China, the SCO members must benefit from the opportunity and diverge the trade eastwards. Easing up EV import regulations from China and other SCO countries while also facilitating joint ventures between local automobile manufacturers and the EV producers from other SCO countries to promote EV production enhancement, transfer of technology and upgradation of local skills and productivity must be the focus of Electric Vehicle Production and Adoption collaboration.

If adequate policy measures joined with necessary collective efforts are taken up by the SCO member states, not only will they be able to break the nexus of western economies on the global EV trade, but also create a bigger EV market in the region. The opportunity has presented itself for the SCO member states to become the hub of global EV production as well as be the driving force for the global transition from ICEVs to EVs for which the collaboration among SCO countries is absolutely crucial.



7. POLICY IMPLICATIONS

The SCO countries are steering a dynamic path of economic integration and trade, driven by a combination of traditional practices and emerging technologies. SCO economies, especially emerging economies are efficiently adopting integrating steps. There is a significant potential for collective development and growth, while a lot to learn from the experiences of fellow member states for all.

Despite a number of positive aspects, there are certain barriers in promoting trade, which are primarily related to differences in economic systems and levels of development that makes it difficult to unify trade norms and rules. Limited infrastructure and geographical remoteness complicate logistics and increase the cost of transporting goods

Lengthy and complex customs procedures at border crossings create additional costs and delays for businesses, despite the desire to simplify customs procedures, differences in legislation and practice remain. This leads to delays and additional costs at border crossings. The lack of modern logistics centers and warehousing facilities also creates barriers to the efficient storage and redistribution of goods.

The Shanghai Cooperation Organization Interbank Union (SCO IBC) is the main initiative of SCO Member States which aims to create a mechanism to financially support investment projects within the economic area of SCO member countries. The challenges associated with the regulatory system, foreign policies of SCO countries and regional politics must be carefully addressed to ensure the long-term success of such initiatives.

Emerging technologies, mainly digital currencies and block-chain methods, are possible avenues that can be adopted to transform trade among SCO countries primarily to streamline cross-border transactions, reduce costs, and enhance financial inclusion. Block-chain technology can also help in improving transparency and efficient solutions in trade processes. Despite expecting advantages, challenges such as regulatory management, cybersecurity risks, and the need for strong digital infrastructure must be addressed. These steps are expected to bring closer economic ties among member states.

In summary, the progressing financial landscape within the SCO is shaped by a mix of traditional practices, strategic initiatives, and technological advancements. By addressing the challenges and embracing the opportunities, the SCO countries can achieve high payoffs from deeper financial integration, enhanced trade efficiency, and better regional cooperation.

This section therefore, suggests possible policy measures that the SCO member states can adopt in order to improve economic ties and cooperation for collective growth and development:

Trade Agreements

Key recommendations are proposed for strengthening the FTA's effectiveness in increasing intra-regional trade within the SCO region;

- ◆ It is crucial to improve outreach initiatives that increase stakeholder awareness in the member countries. For instance, to educate businesses, policymakers, and other concerned actors on the benefits and opportunities provided by the trade arrangements.
- To strengthen the intra-SCO trade and increase the region's global export capabilities, it is important to broaden the product portfolios of agriculture and manufacturing industries within the SCO countries. Key measures include coordinated trade policies, sectoral diversification, and business reforms tailored to the comparative advantages and trade complementarities among SCO countries.
- ◆ The anticipated increase in trade turnover due to FTA will only be realized if existing challenges are overcome. These include infrastructural bottlenecks, bureaucratic delays, funding constraints, and variations in trade regulations. A coordinated strategy is needed, with the SCO secretariat playing a central role in facilitating the development and implementation of solutions to these challenges.
- To unlock the full economic potential of FTAs, it is crucial to address geopolitical uncertainties and historical political tensions. Efforts to stabilize the ongoing situation in Afghanistan are also pivotal. These initiatives will create a more conducive environment for driving sustained regional trade growth.

Financial Markets

The key recommendations for development and integration are:

- SCO countries must focus on developing common standards and coordinating financial regulations to facilitate cross-border transactions and financial operations. They must align regulatory frameworks for digital currencies and modern block-chain technologies. Additionally, establishing policy-driven mechanisms for information sharing and regulatory cooperation among financial specialists in SCO countries is direly needed. The countries must effectively address financial complexity issues such as informal money transfer challenges/payments, and lack of financial ease for businesses.
- SCO countries must encourage the adoption of digital payment solutions to modernize cross-border payments and reduce reliance on traditional banking systems. Invest in banking technologies that bring efficiency in payment systems to support transactions across borders.
- Upgrade and invest digital infrastructure to support increasing demand

for digital financial services and ensure that all SCO countries have access to modern financial systems. Initiatives must be taken to improve financial literacy and modern financial services for businesses, particularly traders & investors to increase their participation in the formal financial system.

Logistics and Infrastructure

- The immediate task to improve the supply chains is the unification of transport legislation and the development of measures like specialized committees and working groups to coordinate cross-border projects. This will allow countries to better coordinate their actions and quickly solve emerging problems. The working groups will further assist in the development and implementation of harmonized standards for the construction and operation of infrastructure such as railways, energy lines, pipelines, and transport corridors.
- ◆ The export of agricultural products can be enhanced through the construction of modern wholesale distribution centers, modern border terminals equipped with equipment necessary for the transportation of perishable goods, and the provision of guarantees for transit transportation based on international agreements like the UN Convention on International Road Transport (TIR), UN Convention on the Contract for the International Carriage of Goods by Road (CMR). During 2021-2023, a pilot project was carried out between Russia and Belarus to introduce the e-CMR international road waybill. It is important to consider the implementation of similar projects between the Russian Federation and the rest of the SCO countries and expand the practice further in the region.
- Strengthening the international funds and chalking out mechanisms for financing large projects, which will attract additional investment and distribute risks among the member countries.
- Large-scale infrastructure projects such as CASA, TAPI, and other relevant regional agreements are crucial to addressing transport-related issues. Adequate budget allocations must be secured to ensure these projects' timely completion and operationalization.
- Creation of a joint investment fund, which will provide financial support for project activities and stimulate direct and portfolio investments in regional projects. Additionally, the creation of a base of "SCO economic preferences" will increase the investment attractiveness of the member countries.

Accelerating EV Transition

Some of the possible initiatives among SCO members for stimulating the shift from ICEVs to EVs are listed below:

Co-financing and Investment: Joint Ventures between Automobile producers of member countries aimed at the transfer of technology and skills adoption to promote EV manufacturing.

Infrastructure Development Support Fund: Creation of a joint fund with the sole purpose of supporting the development of EV-related infrastructure such as industrial charging stations, Detachable and removable EV battery stations, etc.

Joint Research & Development Initiative: Cross-country R&D efforts involving manufacturers and academicians/researchers from member countries to research, develop and innovate the technological challenges, particularly regarding cost-reduction.

Preferential Tax Rates: Lower tax rates for import of EVs from other SCO member countries.

In nutshell, cooperation in infrastructural projects is crucial for fostering regional connectivity, trade, and economic integration. All this requires to overcome a set of challenges, such as geopolitical tensions, financial constraints, regulatory discrepancies, and environmental concerns. Regular high-level engagements and active participation in SCO summits can create a more conducive environment for collaborative infrastructural projects. Addressing environmental and social concerns through sustainable practices and engaging in strategic partnerships further strengthens this cooperative framework. Through new incentives, schemes, and optimization of existing projects, the SCO countries can significantly contribute to creating a robust, inclusive, and resilient infrastructure network in the region, driving economic growth and regional stability.

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