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Pakistan as a Regional Connectivity Hub: Geostrategic Opportunities and Challenges

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Abstract

Pakistan is well positioned to provide regional freight services, but reliable transport depends on more than geography. This article analyzes factors that enable or constrain the use of Pakistan's communications and connections for international or regional trade and commerce. A qualitative analysis of 23 sources is presented, as well as one methodological article. Evidence is compared for the maritime gates, the China-Pakistan Economic Corridor, the Northern distribution corridor (through Central Asia with/without Afghanistan), and the Iran corridor. The analysis separates transport and trade activities from enabling infrastructure and services. Prior commerce and transport activities are evident at Pakistan's maritime gateways, especially at Port Qasim and Karachi. Gwadar Port is predominantly a transshipment port. Land transport is the main mode for regional communications, but the roads and railway infrastructure sampled in the article are undeveloped. The border crossings and integrated trade and transport facilities sampled in the article illustrate inefficiencies and delays. The main trade and transport route through Pakistan was closed for part of 2022. The article integrates geography, trade, and transport and identifies trade and transport priorities.

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1 Introduction

1.1 Context

Regional connectivity occurs when the right combination of transport and logistics services integrates trade corridors and flows across borders. Without efficient border and customs administration, trade-critical services and infrastructure remain underused or underutilized. For landlocked developing countries, other countries' infrastructure and services determine access to international markets (Limão and Venables, 2001). Pakistan is located in South Asia, bordering China, Iran, Afghanistan and India. The Arabian Sea gives it direct shipping access to international trade. Pakistan's communications with its neighbours and other countries are augmented through the China-Pakistan Economic Corridor (CPEC) and the Central Asia Regional Economic Cooperation (CAREC) Program. The CAREC Transport Strategy (2030) promotes regional cooperation in transport and the use of integrated and multimodal transport services (ADB, 2020). Where geography favours trade and communication, trade and communication should naturally thrive. Other factors, such as poor transport administration and service integration, can negate geography's impact. This article assesses factors that encourage Pakistan to embrace regional trade and transit.

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1.2 Scope

This article considers connections in freight and trade. It examines Karachi Port, Port Qasim, Gwadar, and key CPEC transportation infrastructure, and outlines routes from Pakistan through Afghanistan into Central Asia. It analyzes Pakistan's relations with West Asia and Iran. For comparison, it reviews routes that touch China. It reviews digital customs and border clearances as they affect the movement of goods. It does not review electricity and piped gas projects, international telecommunications and transport, and passenger transport.

1.3 Research Objectives

1. To assess the opportunities created by Pakistan’s geographical position for connecting South Asia with Central Asia, China and West Asia.
2. To assess the contribution and limitations of CPEC and Pakistan’s seaports in connecting South Asia with Central Asia and wider markets.
3. To compare connectivity opportunities and constraints across Pakistan’s links with Afghanistan, Central Asian states, Iran and China.
4. To evaluate evidence on border performance, administrative coordination, security and commercial constraints affecting those corridors.
5. To propose feasible policy and monitoring priorities grounded in the documentary findings.

1.4 Research Problem

This article analyses connectivity between trade and cargo flows. It examines the ports of Karachi and Port Qasim, Gwadar Port, and the railway and road projects within the China-Pakistan Economic Corridor (CPEC). It also looks at transit routes through Afghanistan and Pakistan’s relations with Iran and West Asia. Only routes leading to China are compared and contrasted. Other types of connectivity, such as air links, are not considered. Pakistan's location gives it access to surrounding countries and international marine routes, but it lacks an integrated and reliable transport system. There are completed and ongoing projects. War, embargoes, and high levels of insecurity prevent freight transport. The main objective of this research is to evaluate if and when recently developed and modernised transport connections create efficient regional corridors.

1.5 Research Questions

How does Pakistan’s geographical position create opportunities for regional connectivity?

What role can CPEC and Pakistan’s seaports play in linking South Asia with Central Asia and wider markets?

What opportunities and constraints shape connectivity with Afghanistan, Central Asian states, Iran and China?

Which geopolitical, economic, infrastructural, institutional and security challenges limit regional connectivity?

Which policy measures could translate geographical advantages into practical regional economic integration?

1.6 Significance

The article analyses the operational connectivity of trade and infrastructure. Its main merit is its analysis of transport services and international trade, as well as its categorisation of projects and developed infrastructure facilities. Based on this analysis, institutions can identify the need for administrative changes and/or investments. The analysis also enables evaluation of the progress achieved in administrative reforms and/or investments. This is particularly relevant for South Asia, as a number of infrastructure facilities have recently been built or are under construction.

2. Pakistan's Geographical and Geostrategic Location

Pakistan's ports connect the Arabian Sea with landlocked areas to the north. Most of the land routes connect Pakistan with Afghanistan and Iran. Some northern routes connect Pakistan with China and other Central Asian states. Several roads and railways cross Pakistan, with different transportation services and security levels. A transport corridor is a route that connects two or more areas with infrastructure and regular transport services. A transit corridor allows transportation through a country. A transit corridor may become a transport hub if transportation services are available and used regularly. This research considers the concepts of transportation corridors and hubs and differentiates them. Geography creates transportation corridors. Politics and policies may obstruct them.

3 Literature Review

3.1 Geographical and Geostrategic Importance

Infrastructure and Geography's Role in Transport Costs: Limão and Venables (2001) provide insights on why transit countries develop transport services. However, they do not assess Pakistan's transport routes. In South Asia, Kathuria (2018) discusses regional trade and moves beyond geographical trade to consider other factors. He shows integration is not always coupled with geographical proximity. The studies reviewed herein provide insights for analysing Pakistan and identifying potential gaps. Nevertheless, the aforementioned studies do not assess Pakistan's routes for the period under study.

3.2 Regional Connectivity and Corridor Development

The ADB (2020) notes that expanding transport and trade networks and using different modes of transport facilitates regional integration. ADB (2025) provides insights on border control and integration. The CAREC Institute (2026) evaluates trade integration and identifies bottlenecks in the South Asia region. The ADB (2026) gives direction on regional connectivity and transport networks. Together, these studies advance the region's interest in trade facilitation and incorporate various stages of the transport network.

3.3 CPEC and Pakistan's Transit Opportunities

Barriers and opportunities created by CPEC are highlighted in the literature studied. Some scholars have analysed the initiative's politics and economy. Others have documented implementation and cooperation-related challenges. Others have analysed the impacts of CPEC's core transport infrastructure. CPEC studies highlight potential situations and state the reasons why those situations may not be realised. Their major contribution to this study is to locate and describe situations that need to be analysed. It may be possible to determine

whether the predicted situation has materialised by examining operational data and/or CPEC project status.

3.4 Pakistan-Central Asia C corridor

Together, the studies examined here have identified routes that connect Pakistan's coastal trade and transportation routes with Central Asia. The proposed Trans-Afghan railway could connect South Asia and Central Asia. The railway would also serve as a trade route and a railway bridge for other roads (Pakistan's Ministry of Foreign Affairs, n.d.). The 2008 U.S. Quadrennial Defence Review identified existing transportation corridors through Afghanistan as the C correlation (U.S. Department of Defence, 2008). The review did not consider the potential economic impact of closing transportation corridors. The closure of the Pakistan-Afghanistan border in October 2005 illustrates operational restrictions. It does not assess the financial impact of closed corridors.

3.5 Gwadar and Maritime Trade

Annual reports published by Karachi Port Trust and Port Qasim Authority detail shipping and cargo activity. These reports provide insights into maritime trade through these facilities (Karachi Port Trust, n.d.; Port Qasim Authority, n.d.). The Gwadar Port Authority (n.d.) discloses information related to vessel traffic and port activities. While observing a ship call signals that a port is equipped to handle ships of that size, it does not imply that the port handles that volume of cargo annually. The 2024 report of the Government of Pakistan noted that partial road access to Gwadar existed, and other road and related infrastructure was undeveloped (Ministry of Planning, Development and Special Initiatives, 2024). The report provided evidence of Gwadar's lack of connectivity. Evidence regarding connectivity includes completion of an overland transport leg of a train journey. Although each of these pieces of evidence is important for evaluating connectivity, they do not necessarily indicate that connectivity has been established and maintained.

3.6 Iran and West Asian Connectivity

Pakistan's Iranian connectivity comprises a rail line from Quetta to Taftan and other overland transport routes to Türkiye. Documentation from 2021 indicates that a train departed from Islamabad, through Tehran and Türkiye, to Ankara (Ministry of Foreign Affairs, n.d.-b). In 2026, Taftan was declared a customs territory (Press Information Department, 2026). The railway and overland connectivity were re-established, and an agreement to reinstate transport services was signed. Like the evidence on Gwadar, these pieces of evidence are important to evaluate the status of transport connectivity but do not necessarily indicate that transport services have been re-established and maintained.

3.7 Research Gap

The literature does not adequately measure expected connectivity and actual connectivity. Zhao et al. (2022) and Khursheed et al. (2019) identify where connectivity improvements are needed and describe some barriers to their realisation. However, they do not assess route performance. Khan and Nawaz (2021) analyse some of the routes assessed in this study, but they do not provide performance data. Zhao et al. (2022) model accessibility improvements, but they do not assess performance or use. Khursheed et al. (2019) and Khan and Nawaz

(2021) do not assess performance or use. The studies reviewed in this article focus on different topics than those cited in the previous paragraph. This article describes and assesses evidence to identify and define gaps in connectivity. Evidence identified in this article is comprised of a variety of projects, studies and initiatives. The studies cited in this article focus on geographic areas that overlap the CPEC initiative. The studies evaluated in this article do not establish policy effects or evaluate the transportation of goods and services along defined and prioritised trade corridors.

4.1 Conceptual Framework

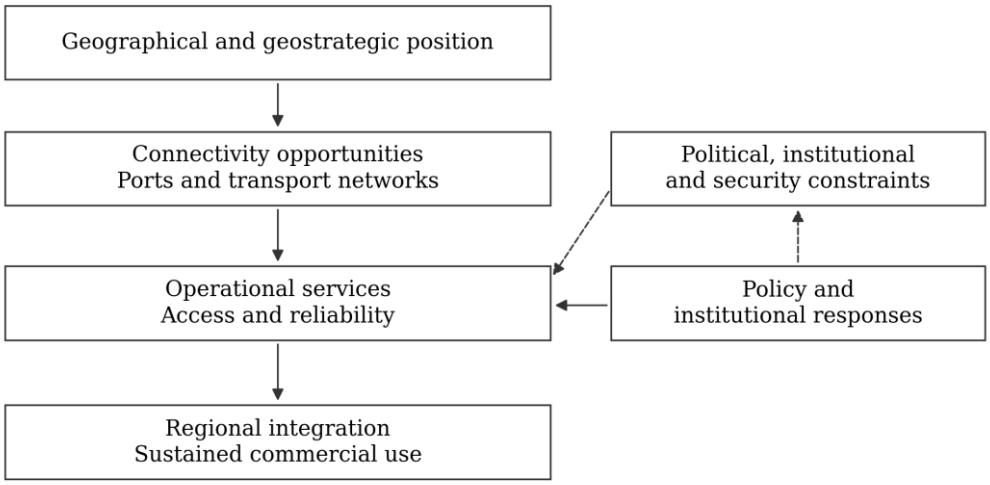
Connectivity consists of physical and operational dimensions as well as institutional elements. In terms of connectivity, geography is important, as it creates the potential for access. The actual means of mobilising this access are transport and/or ports. Reliable transport depends on sufficient means, as well as adequate operating rules and agreements. A further important element for integration is the use of these means and agreement on the rules and associated institutional elements. Use may evolve to regional integration (ADB, 2026).

4.2 Main Dimensions

As illustrated in Figure 1, geographical position connects to use and services, and this use may evolve into regional integration. The framework illustrates possibilities and indicates where interventions could be directed to realise these potentials. Use and services may be interrelated. The services and means may vary along the continuum from free trade to reduced trade to no trade, as illustrated in Figure 1. Improving and integrating transport means and services may facilitate the movement of goods. Various institutional elements may respond to the constraints that affect the services. The relationships depicted in Figure 1 are theoretical and not necessarily empirical. Improving and integrating the services and means in the direction of the arrows may promote integration.

Figure 1

Conceptual Framework for Regional Connectivity



Note. Author's synthesis, drawing on Limão and Venables (2001), Kathuria (2018) and ADB (2026). The relationships are analytical propositions rather than estimated causal effects.

5 Methodology

5.1 Research Design

This study is based on qualitative documentary analysis. It incorporates academic and official documents related to seaports, projects and agreements. It analyzes border and transit-related activities. The focus is on comparison. As Bowen (2009) notes, document analysis and other related evidence may be used to assess and substantiate claims and policies.

5.2 Research Scale and Level of Analysis

The study examines four interrelated transport systems, namely, maritime transport and associated land-based transport systems, including the China-Pakistan Economic Corridor (CPEC). The other transport systems include land-based transport systems connecting Afghanistan to Central Asia, and transport systems connecting to Iran. Documents and other evidence available on the systems are analyzed. The systems include land and maritime transport systems.

5.3 Data Collection and Document Selection

The purposive corpus consists of 23 documents (individually listed in Appendix A). It consists of one edited book (containing articles), five journal articles, and six institutional documents. It also includes port and CPEC documents, as well as diplomatic and administrative records. Bowen (2009) is the only paper that informs the method. The remaining documents provide evidence in the form of ideas, doctrines, and rules. Evidently, the documents are proprietary in nature. The documents were selected based on their relation to the research questions. It was imperative that the records were published (or made public) and carried the name of an author (or institution). Records relating to all four means of transport were included. Documents of a (relatively) recent and (very) old date were included. Institutional records were included if they supported the existence (or non-existence) of a service or project. Records were included if they (mainly) supported (or proved) an idea or theory. The records were online (and functional) as of 14 November 2026. Other (more reliable) sources were included if they refuted the theory. The claims made in this review are substantiated by the selected documentary evidence. It does not describe or report (in detail) theories and ideas that it did not explore. Various peers' published works and institutional and (government) records were included. The records, along with their shortcomings, are listed in Appendix A. It served as a basis for comparison. This review supports its theories and ideas by comparing and analyzing the selected records.

Table 1

Documentary Corpus and Analytical Role

Source group	Documents	Primary use and limitation
Academic literature	6: five journal articles and one edited book	Five substantive academic sources plus one methodological article; concepts and earlier analysis, not current project status
Regional institutional evidence	6: four ADB sources, CAREC 2024 report, World Bank 2025 monitor	Strategy, border performance, rail readiness and dated disruption; units and periods differ

Source group	Documents	Primary use and limitation
Ports and CPEC records	5: three port authorities and two CPEC road records	Dated throughput, vessel events and asset completion; not proof of transit demand
Diplomacy and administration	6: foreign affairs (2), planning (2), press information (1), single window (1)	Agreements, project preparation and administrative measures; implementation requires checking

5.4 Data Analysis

Corridor data was synthesised through thematic analysis. Each source was analysed by date, geography, evidence type, research question and main limitation. The main constraints and maritime gateways were identified and thematically coded. Comparison of codes indicated priority policies. The evidence was further coded based on project and service status and classified as proposals and feasibility, under construction, in use, and in service. The integration of corridors and maritime gateways facilitates the movement of goods and services across Afghanistan and Central Asia, including West Asia and Iran. It addresses challenges and constraints such as trade and transport across international borders. The evidence identified inadequate financing, poor administrative coordination and incomplete transport and transit services. Border delays were identified through the CPEC records and studies sponsored by the World Bank and ADB. Comparative analysis, based upon prior policy assessments, indicated that extensive maritime and transport corridors facilitate trade and transport, address geographical gaps and ease international connectivity. This analysis focused on identifying and classifying constraints rather than studying policy formulation and administration. Considering the nature of the documents reviewed, it was assumed that in cases where the same concerns were raised by different authors, the position taken in the analysis was justified.

5.5 Scope and Limitations

The sources differ in institutional coverage and reporting periods. Public agencies report on their projects, limiting the opportunity to confirm reports. Full evidence on academic research is sometimes only available as an abstract or through an archive record. Not all routes are evaluated for all potential commercial corridors, and the study cannot construct a complete commercial cost structure. For the same reasons, the study cannot quantify improvements to national welfare. Not all sampled border crossings are averages, and the absence of a sampled border crossing does not mean it does not exist.

6 Analysis of Regional Connectivity

6.1 Maritime Connectivity and Pakistan's Seaports

In FY2024/25, the Karachi Port Trust reported handling 53.951 million tonnes and 2.651 million TEUs. The Port Qasim Authority reported 45.305 million tonnes and 1.357 million TEUs, of which 1.435 million tonnes and 688,343 TEUs were containers. For this study, and for comparison, the activities at both ports are examined for this period. These activities do not show the ports' relative importance for transit transport in Central Asia. Likewise, the activities do not show the competitiveness of overland transport to and from the ports. Gwadar Port Authority (n.d.) shows that about 53,277 tonnes of steel billets were moved on 24 May 2026. Its event records also show that in April 2026, there were four transshipment vessels and one more vessel on 4 May. This information shows that more than one vessel called rduing this period and that cargo-handling activities were undertaken. However, the information does not show a consistent series of annual transits or a significant demand for overland transport.

Distinguishing transshipment from through transport of cargo via the maritime highway is essential. Cargo movements through Gwadar to other destinations should be analysed against the annual throughput at the ports of Karachi and Port Qasim. Access and infrastructure services connecting Gwadar to neighbouring areas are key in evaluating Gwadar's potential. A government report from November 2024 (Ministry of Planning, Development and Special Initiatives, 2024) states that some required roads and allied facilities were still lacking at the time. Gwadar Port Authority's (n.d.) records show that an assessment of port and city development and free trade zone activities was done in October 2026. Like the ship records, these assessments also show that the evaluated activities were generally ongoing rather than completed. Together, these records highlight the need to evaluate port activities alongside the completion of key infrastructure and ongoing transport operations. Evidence of demand for continuous transport and shipment activities should be evaluated with investment in port facilities.

6.2 CPEC and Regional Connectivity

Official records state that the Multan-Sukkur motorway (392 km) was completed and opened in November 2019 (CPEC Secretariat, n.d.-b). The Havelian-Thakot project (120 km) has completed motorway and highway sections. The motorway portion (Havelian-Mansehra) and the highway section (Mansehra-Thakot) were both opened in November 2019 and July 2020, respectively (CPEC Secretariat, n.d.-a). According to these records, all of the above-mentioned road projects have been constructed. The records do not assess international freight transit or evaluate the overall corridor. Access to international markets is contingent on the completeness of international road connections. Zhao et al. (2022) highlight the distributional equity issues surrounding the planned CPEC. Khursheed et al. (2019) and Khan and Nawaz (2021) discuss the potential for regional connectivity and factors limiting it, politically and otherwise. Completing road projects and border infrastructure creates the potential for international freight transport, but without complementary projects, it may not be viable. The existing railway lines on the Main Line-1 project and their modernisation should be considered separately . According to the ADB (n.d.), one modernisation project (Karachi-Rohri) is still at the proposal stage.Although improvements to this section of the line may alleviate certain bottlenecks, modernisation of the existing line does not create additional freight capacity. China-related access has an institutional element. The Ministry of Foreign

Affairs (n.d.-a) confirms the operation of the Quadrilateral Traffic in Transit Agreement and approval of permits for Pakistani transporters. The Agreement facilitates transit through Pakistan to China, Kazakhstan and the Kyrgyz Republic. This document corroborates the Afghanistan-related transit arrangements. The referenced records do not include data on transit times and total transport costs for the international transport of goods. The issuance of permits reflects the existence of transit arrangements and does not indicate the operation of international transport routes.

6.3 Connectivity to Afghanistan and Central Asia

Torkham and Chaman are the principal transit points between Pakistan and Afghanistan. The latter provides access to other transit points to Central Asia. Cross-border movement of goods and services is affected by many factors, including the issuance of trade and transit documents, the nature and level of control over the movement of goods and persons, and the regular and uninterrupted functioning of border crossings. The World Bank (2025) states that the 2025 closure of border crossing points between Afghanistan and Pakistan negatively affected Afghan international trade and transit, diverting it through Iran and Central Asia. CAREC's 2024 monitoring report shows a mean outbound clearance time of 38.1 hours for sampled road movements in Pakistan, with a mean outbound border-crossing cost of US$259.3 (CAREC Institute, 2026, p. 27, Table 6.7). Selected indicators for the years 2022 to 2024 are presented in Table 2. The clearance time at outbound borders increased by 5.0 hours from 2023 to 2024. Speed (including delays) and (excluding delays) for the sampled corridor movements for the years 2023 and 2024 are presented in the table. Speed (including delays) reflects the average speed of sampled movements for the corridor. The time and cost data reported are for outbound movements only. No inbound time or cost data are reported. Usually, increased clearance time indicates congestion at borders, especially if clearance costs increase. However, increased wait times at the border may also indicate processing delays. Data for 2024 are insufficient to assess border activities and processes and to distinguish which border agency activities (if any) may have contributed to delays. The Uzbekistan-Afghanistan-Pakistan railway is likely to be constructed much later. The Ministry of Foreign Affairs (n.d.-a) mentions a framework agreement from July 2025 to undertake joint studies on project feasibility. The Ministry of Planning, Development and Special Initiations (2026) mentions the above-cited framework agreement in a September 2026 report. It emphasises the need to complete the feasibility study and secure associated financing. Both sources indicate that the project is in an early stage and that regular railway services do not exist.

6.4 Iran and West Asian Connectivity

Iran provides an important connection to Türkiye and the West. The railway line connects Quetta to Taftan. According to a ministry record, an Islamabad-Tehran-Istanbul freight train left in December 2021 and took 13 days to reach Ankara (Ministry of Foreign Affairs, n.d.-b). This shows that the service was restored. However, the ministry record does not indicate the service frequency. To evaluate the service, information on the regularity and commercial terms of transport is needed. In July 2026, the Press Information Department of Pakistan

(2026) reported Iran's restoration of the Zahedan-Taftan railway line, the designation of Taftan Railway Station as a customs line, and the modernisation of Main Line-3. The report also mentioned the revival of the freight service between Islamabad, Tehran and Istanbul. Iran's restoration and designation of the railway line and Pakistan's modernisation of the line and service are distinct. The report does not show that the railway line and service have been modernised or that services have resumed. Departure records of freight trains and other commercial information are required to evaluate modern transport services between Iran and Türkiye. Other routes through Iran can be used as alternatives to the closed corridor. However, the additional costs and transit time of using the alternative route will determine its viability. Very little information is publicly available on routes through Iran and Afghanistan. This means it is not possible to determine the least expensive route. Policies related to this information should focus on making information on various routes more readily available and using comparable standards to evaluate it.

6.5 Geopolitical, Economic and Institutional Challenges

Political issues influence international trade and investment. Kathuria (2018) focuses on distrust and the lack of appropriate policies in South Asia. Geopolitical issues related to the China Pakistan Economic Corridor (CPEC) are addressed by Khan and Nawaz (2021). The World Bank (2025) gives specific examples of how closing the Pakistan-Afghanistan border affects trade and leads to unexpected use of overland routes. Closing the border does not necessarily mean international trade ceases. The length and cost of such interruptions cannot be determined by a single instance. Delays at international borders are determined by several agencies. The ADB (2025) emphasises the need to integrate improved transportation and communication infrastructure with improved regulations and institutional policies.

Customs is only one of the institutions involved. Improved performance should be evaluated to determine the impact of reforms and new initiatives. Constraints include financing, demand and recovery costs. Access to and funding for the Karachi-Rohri improvement project are still in the preparation phase (ADB, n.d.). The availability of funds and the preparation of feasibility studies for the Trans-Afghan project were agreed in September 2026 (Ministry of Planning, Development and Special Initiatives, 2026). The lack of funding indicates inadequate project readiness. When constructed, the projects should provide commercial transport services. The projects included in the corpus do not estimate long-term operating costs. Most studies included in the corpus do not develop evidence for investment prioritisation. The three types of constraints interact. Geopolitical conditions, including insufficient security, negatively affect the use of transport infrastructure and hinder CPEC. Like geopolitical conditions, a lack of security negatively impacts the use of the transport infrastructure. When active measures are taken to foster greater transportation security, the effects can be evaluated based on delays, service disruptions, and passenger transport. Given the nature of these initiatives, transport operators would be responsible for releasing and coordinating transportation services.

Improving the speed, reliability and efficiency of transport services used for trade would help integrate the regional economy. Harmonising and publishing standardised service levels for

international transport and trade would allow transport and logistics service providers to better estimate and evaluate trade and transport services. This would enable the development of evidence-based transport and trade policies (ADB, 2026). Where the case exists, infrastructure investment can facilitate reforms. Improvements to the rail network should be based on actual freight requirements. Likewise, investments at Gwadar should wait until reliable transport and adequate freight volumes are in place. The same is true for the Trans-Afghan rail line and rail connections to Iran. Without commercial operation of these rail lines and services, any assessment of regional integration should be postponed.

7. Geographical Potential and Operational Connectivity

The first research question focuses on geography. Earlier studies cover Pakistan's location, particularly its maritime and overland transport options. What has not been covered is that, for trade and transport routes to be useful, they should be interconnected with similar routes in other countries. The results of this study should interest policy-makers, as they show that while geographical connection with a trading partner exists, trade and transport links may not be established. The second research question focuses on CPEC and sea ports. Like CPEC road corridors, CPEC rail and pipeline projects should also be assessed based on physical infrastructure. For CPEC, road projects should be assessed based on delivery, and port projects should be assessed based on the cargo handled. It should be noted, however, that the data on road deliveries do not always represent transit transport. Similarly, data on the cargo handled at Gwadar Port does not always represent transit transport.

The evidence presented should be assessed qualitatively to determine the benefits of investments undertaken under CPEC—the third question concerns comparing adjacent regions. Afghanistan-based routes generally access Central Asia. The reliability of the routes is doubtful, given sampled delays and route closures. Reliable international rail services exist via Iran. However, the services' performance cannot be assessed because the frequency is unknown. The permits and agreements for the China-based routes provide evidence of intent to provide transit services; however, little information is available on route use. Closing remarks focus on the different services and transit potential of the corridors. Services on other transit corridors that are commercially viable provide greater flexibility to the corridor. The fourth question addresses constraints. The sampled delays and the closure of international transit routes are constraining factors. The delays occur at borders, and transit shipments are subject to the availability and timing of multiple modes of transport. Border closures can be temporary, and projects to enhance corridor efficiency offer little benefit if border facilities and connectivity are lacking. This is consistent with the ADB (2026) report, which supports greater regional cooperation and integration to realise the potential of South Asia’s international trade. The fifth question addresses policy. It is recommended that policy be aligned to the sampled constraints. International transit and transit-related transport services are constrained by delays and inadequate hinterland and seaport connectivity. Potential railway services, as well as other transport services, are of little use until demand and traffic are sufficient to warrant infrastructure investment. This report presents similar conclusions in its recommendations.

Table 3
Comparative Assessment of Regional Connections

Connection	Documented position	Principal outstanding question
Karachi and Port Qasim	Annual port cargo and container throughput in FY2024–25	How much through-transit traffic can be served at competitive end-to-end cost?
Gwadar	Documented vessel calls and ongoing development reviews in 2026; no harmonised annual transit series	Can regular traffic and inland services sustain expanded operations?
CPEC and China-facing links	Delivered selected roads; operating transit agreement; proposed ML-1 upgrade	Do border and logistics services convert road access into recurring freight use?
Afghanistan/Central Asia	Road crossings with sampled delays; railway feasibility agenda	Can continuity, customs arrangements and finance support dependable transport?
Iran/West Asia	Documented rail journey; customs designation and reported section restoration; planned upgrade and service revival	Are regular through-services available under predictable commercial terms?

The four case studies suggest that transport system infrastructure readiness and performance are two separate but related aspects. Tracing infrastructure projects shows the status of the different project components at various stages. Factors such as transport costs and transportation demand determine whether firms use available transport infrastructure. This evaluation focuses on bottlenecks in the transport system and the gap between potential and actual transport performance. A thorough analysis of these constraints and engagement with relevant stakeholders to determine the best course of action have been deemed prudent.

8 Conclusion

Pakistan has the potential to integrate South, Central and West Asia via its land routes. Evidence shows the completion of various CPEC projects and transport activity at ports in Karachi and Port Qasim. Gwadar also has transport activity, and infrastructure development is ongoing. Sustained demand for overland transport has also not been adequately assessed. Further evidence shows ongoing improvement works and the restoration of the ML-1 and the Trans-Afghan rail. The improvement of rail services to and from Iran was also evidenced. It was generally concluded that while a region's geography and the availability of connecting infrastructure play an important role in international trade, sufficiently reliable and secure services also play an important role.

9 Policy Recommendations

The recommendations that follow are based on the findings presented in sections 6 and 7. Urgent actions can be taken to address the major delays and access barriers identified. Other recommendations cover the readiness of cross-border services and business concerns related to financial and demand risks, as well as integrating investment with regional trade and

cooperation agreements. The time periods refer to the anticipated periods for implementation of recommendations; they should not be construed as the periods within which recommendations are expected to be carried out.

9.1 Recommendations for the First Year

1. The function of corridor coordination should be assigned to an existing inter-agency group comprising customs and border agencies, port and rail authorities and freight transport operators. The group should also formulate and implement plans to address the coordination gaps identified in section 6.5.
2. Border agencies should establish baselines for median and 90th percentile border release times for shipments in both northbound and southbound directions. The baselines should be established using observed processing times.
3. Prioritized border agency procedures should be identified using waiting times of border agency users as the end point of the evaluation.

9.2 Recommendations for the Period up to Three Years

1. Assess requirements and prioritize railway improvements to increase freight capacity and establish hinterland connections. In the context of corridor projects, assess establishing dry ports.
2. Conduct an interim assessment of traffic, shipping and transport services to and from Gwadar, and the costs for transport, storage and handling.
3. Adapt existing transit agreements for integration with customs and operator procedures. Provide time-bound updates on adapting and completing transit corridors toward Afghanistan, Central Asia and China.
4. Complete project assessments for the Trans-Afghan Railway and potential rail connections to Iran. Be prepared to implement other rail services after the preceding project assessments address feasibility, financing, technology and operating assets.

9.3 Long Term Priorities for Years 3 to 7

1. Prepare an integrated and secure transit and transport strategy to link the road, rail and maritime transport and transit systems of the region.
2. Carry out a comprehensive assessment of corridor investments to analyze trade, finance and security.
3. Integrate rail and road transport services and improve legal and transit arrangements through the CAREC and ECO programs and country-specific agreements. Prioritize assessment of international transit and transport services.
4. Conduct prior consultation for major projects to secure community consent and ensure employment and procurement prioritize resident labor.

9.4 Monitoring and Evaluation

Below are proposed indicators to evaluate progress toward goals. Indicators must be defined and reported during specified time periods. Baseline conditions must be identified and compared to project goals to assess the attainment of project objectives. Disaggregated goals and achievements must be provided to depict information flow by corridor in both directions. Multiservice transport must be assessed in addition to activities related to international trade and transport across international boundaries. Port activities must also be assessed.

Estimations of data must not be made. The first step must be to set interim goals to provide project goals and targets.

Table 4

Proposed Monitoring Framework

Indicator	Measurement and frequency	Responsible body
Border processing	Arrival at defined queue to border release: median and 90th percentile, monthly by direction	Customs and border agencies
Port dwell	Discharge to gate-out: median and 90th percentile days, monthly by cargo class	Port and terminal operators
Digital completion	Share of eligible declarations completed without paper resubmission, monthly	Customs and PSW
Rail freight share	Rail tonne-km divided by consistently defined inland freight tonne-km, annually; disclose coverage	Transport statistical agencies and railways
Service continuity	Scheduled and completed departures and closure hours, monthly by corridor	Carriers and border authorities
Regional transit use	Through-transit tonnage by gateway, origin and destination, quarterly	Customs and port authorities
Project progress	Dated feasibility, finance, construction and commissioning milestones, quarterly	Planning and implementing agencies
Journey cost	End-to-end price per standard cargo load, including handling and border charges; quarterly by route	Transport agencies and participating carriers

Note. Proposed indicators, not measured results. Customs, ports and carriers should agree consistent definitions before establishing baselines. PSW denotes Pakistan Single Window.

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Appendix A Documentary source register

The register accounts for all 23 sources. RQ denotes research question. Sources can inform more than one analytical theme. Observation periods are distinguished from publication and access dates, and full bibliographic details appear in Section 10.

Table A1
Sources and Their Roles in the Analysis

ID	Source and evidence date	Question and theme	Evidence use and limit
A01	ADB (n.d.) 14 November 2026 snapshot	RQ2, RQ4 CPEC and constraints	Karachi–Rohri upgrade classified as proposed; existing railway operations are distinct.
A02	ADB (2020)	RQ1, RQ5 Geography and policy	Transport strategy supports multimodal planning; goals are not operating results.
A03	ADB (2025)	RQ4, RQ5 Institutional constraints	Border diagnostic separates regulatory, operational and institutional factors.
A04	ADB (2026)	RQ4, RQ5 Coordination and policy	Midterm review supports corridor efficiency and coordination priorities.
A05	Bowen (2009)	Methodology	Guides documentary analysis; not evidence of Pakistan's corridor performance.
A06	CAREC Institute (2026) 2022–2024 observations	RQ3, RQ4 Border performance	Table 6.7 reports sampled road indicators; no Pakistan inbound or rail observations.
A07	CPEC Secretariat (n.d.-a) 2019–2020 inaugurations	RQ2 Delivered infrastructure	Havelian–Thakot sections inaugurated; freight volumes not established.
A08	CPEC Secretariat (n.d.-b) November 2019 completion	RQ2 Delivered infrastructure	Multan–Sukkur motorway completed; route reliability requires other evidence.
A09	Gwadar Port Authority (n.d.) 2026 events	RQ2 Maritime operations	Multiple vessel calls and ongoing development reviews; no harmonised annual overland transit series.
A10	Karachi Port Trust (n.d.) FY2024–25	RQ2 Maritime operations	Annual cargo and TEUs; no isolation of Central Asian transit demand.
A11	Kathuria (2018)	RQ1, RQ4 Policy and geography	Regional trade and policy barriers; not a current corridor-level service dataset.
A12	Khan and Nawaz (2021)	RQ2, RQ4 CPEC and geopolitics	Strategic prospects and political constraints; not observed freight gains.

ID	Source and evidence date	Question and theme	Evidence use and limit
A13	Khursheed et al. (2019)	RQ2 CPEC opportunities	Earlier benefit-oriented analysis; does not establish current asset or service status.
A14	Limão and Venables (2001)	RQ1 Geography and costs	Foundational infrastructure–cost relationship; not a Pakistan route-cost estimate.
A15	Ministry of Foreign Affairs (n.d.-a) Current regional overview	RQ3 China and Central Asia	Operating QTTA and permits; July 2025 railway feasibility agreement.
A16	Ministry of Foreign Affairs (n.d.-b) December 2021 departure	RQ3 Iran and West Asia	Train journey to Ankara; does not demonstrate present service frequency.
A17	Planning Ministry (2024) 5 November	RQ2, RQ4 Gwadar constraints	Historical road and supporting-service constraints; not a 2026 completion record.
A18	Planning Ministry (2026) 28 September	RQ3, RQ4 Rail preparation	Feasibility and financing discussions; not constructed Trans-Afghan capacity.
A19	Pakistan Single Window (n.d.)	RQ4, RQ5 Digital customs	Dated service rollout and integration; clearance-time effects need measurement.
A20	Port Qasim Authority (n.d.) FY2024–25	RQ2 Maritime operations	Annual cargo including containers; used with Karachi's matching year.
A21	Press Information Department (2026) 22 July	RQ3, RQ4 Iran and institutions	Customs designation and section restoration reported; ML-3 upgrade and ITI revival remain distinct planning claims.
A22	World Bank (2025) October monitor	RQ3, RQ4 Disruption	Closure and rerouting episode; not a forecast of permanent route substitution.
A23	Zhao et al. (2022)	RQ2, RQ5 Network accessibility	Modelled planned-network effects and uneven gains; not observed freight use.

Note. Planning Ministry denotes the Ministry of Planning, Development and Special Initiatives. QTTA denotes the Quadrilateral Traffic in Transit Agreement. ITI denotes Islamabad–Tehran–Istanbul. Dynamic webpages were accessed on 14 November 2026.